

KEENETIC

CARRIER

AC1200 Dual Band Whole Home Wi-Fi Router
with Wireless Power Amplifiers, 5-port
Managed Switch, and Multifunction USB Port

Command Reference Guide

| | |
|------------|-------------------|
| Model | Carrier (KN-1711) |
| OS Version | 4.1 |
| Edition | 1.148 18.04.2024 |

Preface

This guide contains Command-Line Interface (CLI) commands to maintain the Carrier device. This guide provides a complete listing of all possible commands. The other chapters provide examples of how to implement the most common of these commands, general information on the interrelationships between the commands and the conceptual background of how to use them.

1 Readership

This guide is for the networking or computer technician responsible for configuring and maintaining the Carrier on-site. It is also intended for the operator who manages the Carrier. This manual cover high-level technical support procedures available to Root administrators and Carrier technical support personnel.

2 Organization

This manual covers the following topics:

| | |
|-------------------------|--|
| Introduction to the CLI | Describes how to use the Carrier Command-Line Interface (CLI), its hierarchical structure, authorization levels and its help features. |
| Command Reference | Provides an alphabetical list of the available CLI commands that you can use to configure the Carrier device. |

3 Document Conventions

Command descriptions use the following conventions:

| | |
|------------------------|---|
| boldface font | Commands and keywords are in boldface . Must be typed exactly as shown. Bold font is used as a user input in examples. |
| <i>italic font</i> | Arguments for which you supply values are in <i>italics</i> . |
| [<i>optional</i>] | Elements in square brackets are optional. |
| ⟨ <i>replaceable</i> ⟩ | Elements in angle brackets are replaceable. |
| (x y z) | Alternative keywords are grouped in round brackets and separated by vertical bars. |
| [x y z] | Optional alternative keywords are grouped in brackets and separated by vertical bars. |

Each command description is broken down into the following sub-sections:

| | |
|------------------|--|
| Description | Description of what the command does. |
| Synopsis | The general format of the command. |
| Prefix no | The possibility of using no prefix with command. |
| Change settings | The ability of command to change the settings. |
| Multiple input | The possibility of multiple input. |
| Group entry | Name of the group that owns the command. If there is no group, this section does not displayed. |
| Interface type | Type of interface, which can be managed by the command. The section does not displayed, if this context has no meaning for the command. Interfaces used in the system and the relationships between them are shown in the diagrams below. |
| Arguments | List of arguments if they exists, and explanations to them. |
| Example | An illustration of how the command looks when invoked. Because the interface is straightforward, some of the examples are obvious, but they are included for clarity. |

Notes, cautionary statements, and safety warnings use these conventions.

Note: Means "reader take note". Notes contain helpful suggestions or references to materials not contained in this manual.

Warning: Means "reader be careful". You are capable of doing something that might result in equipment damage or loss of data.

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Product Overview

1.1 Hardware Configuration

CPU MediaTek MT7628AN MIPS® 24KEc 580 MHz

RAM ESMT M14D1G1664A 128MB DDR2

Flash Winbond 25Q256JVFQ 32MB SPI

Ethernet

| Ports | Chipset | Notes |
|-------|------------|-------|
| 5 | Integrated | |

| Label | Speed | Notes |
|-------|----------|----------|
| 0 | 100 Mbps | WAN port |
| 1 | 100 Mbps | |
| 2 | 100 Mbps | |
| 3 | 100 Mbps | |
| 4 | 100 Mbps | |

USB

| Label | Speed | Notes |
|-------|---------|-------|
| 1 | USB 2.0 | |

Wi-Fi

| Band | Chipset | Notes |
|---------|-----------------------------------|-------------------------------|
| 2.4 GHz | MediaTek MT7603 (on-die) | 802.11 bgn 2x2 |
| 5 GHz | MediaTek MT7613AEN (PCIe Gen 2.1) | 802.11 an+ac 2x2, BF, MU-MIMO |

Introduction to the CLI

This chapter describes how to use the Carrier Command-Line Interface (CLI), its hierarchical structure, authorization levels and its help features.

The primary tool for managing the Carrier router is the command line interface (*CLI*). System settings can be defined as a sequence of commands, which can be executed to bring the device to the specified condition.

Carrier has three types of settings:

| | |
|-----------------------|---|
| Current settings | <i>running config</i> is a set of commands describing the current status of the system. Current settings are stored in RAM and reflect every change of the system settings. However, the content of RAM is lost when the device is turned off. To restore the settings after reboot, they must be saved in non-volatile memory. |
| Startup configuration | <i>startup config</i> is a sequence of commands, which is stored in a specific partition of the non-volatile memory. It is used to initialize the system immediately after startup. |
| Default settings | <i>default config</i> contains factory default settings of Carrier. RESET button is used to reset startup configuration to the factory default. |

Files `startup-config` and `running-config` can be edited manually, without participation of the command line. It should be remembered that the lines with `!` in the beginning are ignored by the parser and the arguments which contain spaces must be enclosed in double quotes (for example, `ssid "Free Wi-Fi"`). Quotes themselves are ignored by the parser.

Responsibility for the accuracy of the changes rests with their author.

2.1 Enter commands in the CLI

Command line interpreter in Carrier is designed for beginners as well as experts. All command names and options are clear and easy to remember.

Commands are divided into groups and arranged in a hierarchy. Thus, to do a setting, the operator needs to enter a sequence of nested command group names (node commands), and then enter the final command with parameters.

For example, IP-address of the `FastEthernet0/Vlan2` network interface is set using the **address** command, which is located in the **interface** → **ip** group:

```
(config)>interface FastEthernet0/Vlan2 ip address 192.168.15.43/24
Network address saved.
```

2.1.1 Entering a group

Some of the node commands (containing a group of child commands) can be “entered” to allow direct executing of the child commands without typing the node name as prefix. In this case the prompt is changed to indicate the entered group.

The **exit** command or [Ctrl]+[D] key combination can be used to exit a group.

For example, after entering the interface group the command line prompt is changed to (config-if):

```
(config)>interface FastEthernet0/Vlan2
(config-if)>ip address 192.168.15.43/24
Network address saved.
(config-if)>[Ctrl]+[D]
(config)>
```

2.2 Getting Help and auto-completion

To make the configuring process as comfortable as possible, the CLI provides auto-completion of commands and parameters, hinting the operator, which commands are available at the current level of nesting. Auto-completion works by pressing [Tab]. Example:

```
(config)>in[Tab]

interface - network interface configuration

(config)> interface Fa[Tab]

Usage template:
interface {name}

Variants:
FastEthernet0
FastEthernet0/Vlan1
FastEthernet0/Vlan2

(config)> interface FastEthernet0[Tab]

Usage template:
interface {name}

Variants:
FastEthernet0/Vlan1
FastEthernet0/Vlan2

(config)> interface FastEthernet0[Enter]
(config-if)> ip[Tab]

address - set interface IP address
alias - add interface IP alias
dhcp - enable dhcp client
```

```

        mtu - set Maximum Transmit Unit size
        mru - set Maximum Receive Unit size
    access-group - bind access-control rules
        apn - set 3G access point name

(config-if)> ip ad[Tab]

        address - set interface IP address

(config-if)> ip address[Tab]

Usage template:
address {address} {mask}

(config-if)> ip address 192.168.15.43[Enter]
Configurator error[852002]: address: argument parse error.
(config-if)> ip address 192.168.15.43/24[Enter]
Network address saved.
(config-if)>

```

Hint for the current command can always be displayed by pressing [Tab]. Example:

```

(config)> interface FastEthernet0/Vlan2 [Tab]

        description - set interface description
            alias - add interface name alias
        mac-address - set interface MAC address
            dyndns - DynDns updates
    security-level - assign security level
    authentication - configure authentication
        ip - set interface IP parameters
        igmp - set interface IGMP parameters
        up - enable interface
        down - disable interface

(config)> interface FastEthernet0/Vlan2

```

2.3 Prefix no

Prefix **no** is used to negate a command.

For example, the command **interface** is responsible for creating a network interface with the given name. When used with this command, prefix **no** causes the opposite action — removing of the interface:

```

(config)> no interface PPPoE0

```

If the command is composite, **no** can be placed in front of any member. For example, **service dhcp** enables the *DHCP* service. It consists of two parts: **service** — the group name in the hierarchy of commands, and **dhcp** — the final command. Prefix **no** can be placed either at the beginning, or in the middle. The action is the same in both cases: stopping of the service.

```
(config)> no service dhcp
(config)> service no dhcp
```

2.4 Multiple input

Many commands have the property of *idempotence*, which means that multiple input of a command has the same effect as the single input. For example, entering **service http** adds a single line “service http” to the current settings, and re-entering does not change anything.

However, some of the commands allow you to add not a single, but multiple records, if they are entered with different arguments. For example, static routing table entries **ip route** or filters **access-list** are added sequentially and appear in the settings as a list:

Example 2.1. Using a command with multiple input

```
(config)> ip route 1.1.1.0/24 PPTP0
Network::RoutingTable: Added static route: 1.1.1.0/24 via PPTP0.
(config)> ip route 1.1.2.0/24 PPTP0
Network::RoutingTable: Added static route: 1.1.2.0/24 via PPTP0.
(config)> ip route 1.1.3.0/24 PPTP1
Network::RoutingTable: Added static route: 1.1.3.0/24 via PPTP1.
(config)> show running-config
...
ip route 1.1.1.0 255.255.255.0 PPTP0
ip route 1.1.2.0 255.255.255.0 PPTP0
ip route 1.1.3.0 255.255.255.0 PPTP1
...
```

Records from such tables can be removed one by one, using prefix **no** and arguments to identify the record you want to remove:

```
(config)> no ip route 1.1.2.0/24
Network::RoutingTable: Deleted static route: 1.1.2.0/24 via PPTP0.
(config)> show running-config
...
ip route 1.1.1.0 255.255.255.0 PPTP0
ip route 1.1.3.0 255.255.255.0 PPTP1
...
```

2.5 Saving to startup settings

Current and startup settings are stored in the files `running-config` and `startup-config`, respectively. To save the current settings in the non-volatile memory, copy them as shown below:

```
(config)> copy running-config startup-config
Copied: running-config -> startup-config
```

2.6 Delayed restart

If Carrier device is located away from the operator and is managed remotely, there is a risk to lose control over it because of a misoperation. In this case it will be difficult to reboot and return to the saved settings.

The **system reboot** command lets you set a delayed restart timer, perform “risky” settings, then turn off the timer and save the changes. If connection to the device is lost during configuration, the operator will be enough to wait for automatic reboot and connect to the device again.

Command Reference

3.1 Core commands

Core commands are used to manage files on your device.

3.1.1 copy

Description Copy the contents of one file to another. Used for the firmware updating, saving the current settings, resetting to factory, etc.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> copy <source> <destination>`

Arguments

| Argument | Value | Description |
|-------------|-----------------|---|
| source | <i>Filename</i> | Full path to the file to be copied in <file system>:<path> format |
| destination | <i>Filename</i> | Full path to the directory for the new file. |

Example

Current settings can be saved as follows:

```
(config)> copy running-config startup-config
```

```
(config)> copy log MyPassport:/log.txt
```

File names in this example are aliases. Full names of the configuration files are system:running-config and flash:startup-config, respectively.

History

| Version | Description |
|---------|--|
| 2.00 | The copy command has been introduced. |

3.1.2 erase

Description Delete a file from the Carrier device.

Prefix no No

Change settings Yes**Multiple input** Yes**Synopsis** | (config)> **erase** <filename>

| Argument | Value | Description |
|----------|-----------------|-----------------------------------|
| filename | <i>Filename</i> | Specifies the file to be removed. |

Example (config)> **erase ext-opkg:/dlna_files.db**
 FileSystem::Repository: "ext-opkg:/dlna_files.db" erased.

| Version | Description |
|---------|---|
| 2.00 | The erase command has been introduced. |

3.1.3 exit

Description Leave the command node.**Prefix no** No**Change settings** No**Multiple input** No**Synopsis** | (config)> **exit**

Example (show)> **exit**
 Core::Configurator: Done.
 (config)>

| Version | Description |
|---------|--|
| 2.00 | The exit command has been introduced. |

3.1.4 ls

Description Display list of files from the specified directory.**Prefix no** No**Change settings** No**Multiple input** No**Synopsis** | (config)> **ls** [<directory>]

Arguments

| Argument | Value | Description |
|-----------|---------------|---|
| directory | <i>String</i> | Path to the directory. Must contain the name of the file system and path to the folder directly in the following format <file system>:<path>. Examples of file systems — flash, temp, proc, usb. etc. |

Example

```
(config)> ls FILES:

      rel: FILES:

      entry, type = D:
          name: com

      entry, type = R:
          name: IMAX.mkv
          size: 1886912512

      entry, type = D:
          name: speedfan

      entry, type = D:
          name: portable

      entry, type = D:
          name: video

      entry, type = D:
          name: Новая папка
```

History

| Version | Description |
|---------|--|
| 2.00 | The ls command has been introduced. |

3.1.5 mkdir

Description

Create a new directory.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(config)> mkdir <directory>
```

Arguments

| Argument | Value | Description |
|-----------|---------------|------------------------|
| directory | <i>String</i> | Path to the directory. |

Example

```
(config)> mkdir SANDSK:/test
FileSystem::Repository: "SANDSK:/test" created.
```

```
(config)> mkdir SANDSK:/test/onetest
FileSystem::Repository: "SANDSK:/test/onetest" created.
```

History

| Version | Description |
|---------|---|
| 2.12 | The mkdir command has been introduced. |

3.1.6 more

Description

Display the contents of a text file line by line.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(config)> more <filename>
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---------------------------------|
| filename | <i>Filename</i> | Full path to the file or alias. |

Example

```
(config)> more temp:/resolv.conf
nameserver 127.0.0.1
options timeout:1 attempts:1 rotate
```

History

| Version | Description |
|---------|--|
| 2.00 | The more command has been introduced. |

3.2 access

Description

Set user access for directory on USB storage.

Command with **no** prefix denies access to the directory.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config)> access <directory> <user> <mode> [ recursive ]
```

```
(config)> no access <directory> <user> [ recursive ]
```

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| directory | <i>String</i> | Name of directory on USB storage. |
| user | <i>String</i> | User name. |
| mode | forbidden | Access denied. |
| | read | Read-only access. |
| | write | Write-only access. |
| | read/write | Access to reading and writing. |
| | inherited | Access rights are inherited from a parent folder. |
| recursive | <i>Keyword</i> | Access rights applies to all subfolders. |

Example

```
(config)> access 0D5F-1DB6:Downloads test read/write
```

```
(config)> no access 0D5F-1DB6:Downloads test
```

History

| Version | Description |
|---------|--|
| 2.00 | The access command has been introduced. |

3.3 access-list

Description

Access to a group of commands to configure the selected list of packet filtering rules. If the list is not found, the command tries to create it. Such a list can be assigned to a network interface using **interface ip access-group** command.

Command with **no** prefix removes the list of rules.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-acl)

Synopsis

```
(config)> access-list <name>
```

```
(config)> no access-list <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| name | <i>String</i> | Filtering rules list name (<i>Access Control List</i> , ACL). |

Example

```
(config)> access-list test_acl
Network::Acl: "test_acl" access list created.
(config-acl)>
```

```
(config)> no access-list test_acl
Network::Acl: "test_acl" access list removed.
```

History

| Version | Description |
|---------|---|
| 2.00 | The access-list command has been introduced. |

3.3.1 access-list auto-delete

Description

Enable automatic deletion of the [ACL](#) rules when deleting an interface. The command is forced on access lists with the `_WEBADMIN_` prefix.

The command cannot be enabled if there are no bound interfaces. The exception is reading the startup-config.

Command with **no** prefix disables automatic deletion.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-acl)> auto-delete
```

```
(config-acl)> no auto-delete
```

Example

```
(config-acl)> auto-delete
Network::Acl: Enabled auto-deletion for "_WEBADMIN_Home" access ►
group.
```

```
(config-acl)> no auto-delete
Network::Acl: Disabled auto-deletion for "_WEBADMIN_Home" access ►
group.
```

History

| Version | Description |
|---------|---|
| 3.09 | The access-list auto-delete command has been introduced. |

3.3.2 access-list deny

Description

Add a packet filtering deny rule into a specified [ACL](#).

Command with **no** prefix removes the rule.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-acl)> deny (tcp | udp) <source> <source-mask>
[ port( ( <src-port-operator> <source-port> ) |
( range <source-port> <source-end-port> ) ) ]
<destination> <destination-mask>
[ port( ( <dst-port-operator> <destination-port> ) |
( range <destination-port> <destination-end-port> ) ) ]

(config-acl)> deny (icmp | esp | gre | ipip | ip) <source> <source-mask>
<destination> <destination-mask>

(config-acl)> no deny (tcp | udp) <source> <source-mask>
[ port( ( <src-port-operator> <source-port> ) |
( range <source-port> <source-end-port> ) ) ]
<destination> <destination-mask>
[ port( ( <dst-port-operator> <destination-port> ) |
( range <destination-port> <destination-end-port> ) ) ]

(config-acl)> no deny (icmp | esp | gre | ipip | ip) <source> <source-mask>
<destination> <destination-mask>
```

Arguments

| Argument | Value | Description |
|-------------------|------------|--|
| tcp | Keyword | TCP protocol. |
| udp | Keyword | UDP protocol. |
| icmp | Keyword | ICMP protocol. |
| esp | Keyword | ESP protocol. |
| gre | Keyword | GRE protocol. |
| ipip | Keyword | IP in IP protocol. |
| ip | Keyword | IP protocol (include TCP, UDP, ICMP and other). |
| source | IP address | The source address in the header of IP-packet. |
| source-mask | IP-mask | Mask to be applied to the source address in the header of IP-packet before comparison with <i>source</i> . There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |
| source-port | Integer | Source port in the TCP or UDP header. |
| source-end-port | Integer | The end of the source range of ports. |
| src-port-operator | lt | Operator "less" to compare the port with the specified <i>source-port</i> . |

| Argument | Value | Description |
|----------------------|-------------------|---|
| | eq | Operator “equal” to compare the port with the specified <i>source-port</i> . |
| | gt | Operator “greater” to compare the port with the specified <i>source-port</i> . |
| destination | <i>IP address</i> | The destination address in the header of IP-packet. |
| destination-mask | <i>IP-mask</i> | Mask to be applied to the destination address in the header of IP-packet before comparison with <i>destination</i> . There are two ways to enter the mask: in the canonical form (for example, 255.255.255.0) and in the form of prefix with bit length (for example, /24). |
| destination-port | <i>Integer</i> | Destination port in the <i>TCP</i> or <i>UDP</i> header. |
| destination-end-port | <i>Integer</i> | The end of the destination range of ports. |
| dst-port-operator | lt | Operator “less” to compare the port with the specified <i>destination-port</i> . |
| | eq | Operator “equal” to compare the port with the specified <i>destination-port</i> . |
| | gt | Operator “greater” to compare the port with the specified <i>destination-port</i> . |

Example

```
(config-acl)> deny tcp 0.0.0.0/24 port eq 80 0.0.0.0/24 port ►
range 18 88
Network::Acl: Rule accepted.
```

```
(config-acl)> deny icmp 192.168.0.0 255.255.255.0 192.168.1.1 ►
255.255.255.0
Network::Acl: Rule accepted.
```

```
(config-acl)> no deny tcp 0.0.0.0/24 port eq 80 0.0.0.0/24 port ►
range 18 88
Network::Acl: Rule deleted.
```

```
(config-acl)> no deny icmp 192.168.0.0 255.255.255.0 192.168.1.1 ►
255.255.255.0
Network::Acl: Rule deleted.
```

History

| Version | Description |
|------------|--|
| 2.00 | The access-list deny command has been introduced. |
| 2.06 | New value ip was added to the protocol argument. |
| 2.08 | New protocols esp, gre and ipip were added. |
| 2.09.A.2.1 | Port ranges were added. |

3.3.3 access-list permit

Description Add a packet filtering permit rule into a specified [ACL](#).

Command with **no** prefix removes the rule.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-acl)> permit (tcp | udp) <source> <source-mask>
[ port(( <src-port-operator> <source-port> )|
( range <source-port> <source-end-port> )))
<destination> <destination-mask>
[ port(( <dst-port-operator> <destination-port> )|
( range <destination-port> <destination-end-port> )))
```

```
(config-acl)> permit (icmp | esp | gre | ipip | ip) <source> <source-mask>
<destination> <destination-mask>
```

```
(config-acl)> no permit (tcp | udp) <source> <source-mask>
[ port(( <src-port-operator> <source-port> )|
( range <source-port> <source-end-port> )))
<destination> <destination-mask>
[ port(( <dst-port-operator> <destination-port> )|
( range <destination-port> <destination-end-port> )))
```

```
(config-acl)> no permit (icmp | esp | gre | ipip | ip) <source> <source-mask>
<destination> <destination-mask>
```

Arguments

| Argument | Value | Description |
|-------------|------------|--|
| tcp | Keyword | TCP protocol. |
| udp | Keyword | UDP protocol. |
| icmp | Keyword | ICMP protocol. |
| esp | Keyword | ESP protocol. |
| gre | Keyword | GRE protocol. |
| ipip | Keyword | IP in IP protocol. |
| ip | Keyword | IP protocol (include TCP, UDP, ICMP and other). |
| source | IP address | The source address in the header of IP-packet. |
| source-mask | IP-mask | Mask to be applied to the source address in the header of IP-packet before comparison with <i>source</i> . There are two ways to enter the mask: the |

| Argument | Value | Description |
|----------------------|-------------------|---|
| | | canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |
| source-port | <i>Integer</i> | Source port in the <i>TCP</i> or <i>UDP</i> header. |
| source-end-port | <i>Integer</i> | The end of the source range of ports. |
| src-port-operator | lt | Operator “less” to compare the port with the specified <i>source-port</i> . |
| | eq | Operator “equal” to compare the port with the specified <i>source-port</i> . |
| | gt | Operator “greater” to compare the port with the specified <i>source-port</i> . |
| destination | <i>IP address</i> | The destination address in the header of IP-packet. |
| destination-mask | <i>IP-mask</i> | Mask to be applied to the destination address in the header of IP-packet before comparison with <i>destination</i> . There are two ways to enter the mask: in the canonical form (for example, 255.255.255.0) and in the form of prefix with bit length (for example, /24). |
| destination-port | <i>Integer</i> | Destination port in the <i>TCP</i> or <i>UDP</i> header. |
| destination-end-port | <i>Integer</i> | The end of the destination range of ports. |
| dst-port-operator | lt | Operator “less” to compare the port with the specified <i>destination-port</i> . |
| | eq | Operator “equal” to compare the port with the specified <i>destination-port</i> . |
| | gt | Operator “greater” to compare the port with the specified <i>destination-port</i> . |

Example

```
(config-acl)> permit icmp 192.168.0.0 255.255.255.0 192.168.1.1 ►
255.255.255.0
Network::Acl: Rule accepted.
```

```
(config-acl)> permit tcp 0192.168.1.0/24 port eq 443 0.0.0.0/24 ►
port range 8080 9090
Network::Acl: Rule accepted.
```

```
(config-acl)> no permit icmp 192.168.0.0 255.255.255.0 ►
192.168.1.1 255.255.255.0
Network::Acl: Rule deleted.
```

```
(config-acl)> no permit tcp 0192.168.1.0/24 port eq 443 ►
0.0.0.0/24 port range 8080 9090
Network::Acl: Rule deleted.
```


History

| Version | Description |
|------------|---|
| 2.00 | The access-list permit command has been introduced. |
| 2.06 | New value <code>ip</code> was added to the <code>protocol</code> argument. |
| 2.08 | New protocols <code>esp</code> , <code>gre</code> and <code>ipip</code> were added. |
| 2.09.A.2.1 | Port ranges were added. |

3.3.4 access-list rule

Description

Disable, set operation time by schedule, change the order or set description for the [ACL](#) rule.

Command with **no** prefix enables the rule, removes schedule and description for [ACL](#) rule.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-acl)> rule <index> (disable | schedule <schedule> | order
<new-index> | description <description>)
```

```
(config-acl)> no rule <index> (disable | schedule | description)
```

Arguments

| Argument | Value | Description |
|--------------------------|-----------------|--|
| <code>index</code> | <i>Integer</i> | The ACL rule number. |
| <code>disable</code> | <i>Keyword</i> | Disable the ACL rule. |
| <code>schedule</code> | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |
| <code>order</code> | <i>Integer</i> | New position of the ACL rule in the list. |
| <code>description</code> | <i>String</i> | The ACL rule description. |

Example

```
(config-acl)> rule 0 disable
Network::Acl: Rule disabled.
```

```
(config-acl)> rule 0 schedule acl_schedule
Network::Acl: Rule schedule set to "acl_schedule".
```

```
(config-acl)> rule 0 description myacl
Network::Acl: Rule description set to "myacl".
```

```
(config-acl)> rule 0 order 1
Network::Acl: Rule 0 moved to position 1.
```

```
(config-acl)> no rule 0 disable
Network::Acl: Rule enabled.
```

```
(config-acl)> no rule 0 schedule
Network::Acl: Rule schedule removed.
```

```
(config-acl)> no rule 0 description
Network::Acl: Rule description removed.
```

History

| Version | Description |
|---------|--|
| 2.08 | The access-list rule command has been introduced. |

3.4 afp

Description Access to a group of commands to manage [AFP](#) server service.

Prefix no No

Change settings No

Multiple input No

Group entry (config-afp)

Synopsis | (config)> **afp**

Example (config)> **afp**
Core::Configurator: Done.
(config-afp)>

History

| Version | Description |
|---------|---|
| 2.06 | The afp command has been introduced. |

3.4.1 afp automount

Description Enable automounting of USB storages to access via [AFP](#). By default, the function is enabled.

Command with **no** prefix disables the automounting function.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (config-afp)> **automount**

| (config-afp)> **no automount**

Example (config-afp)> **automount**
Afp::Server: Automount enabled.

(config-afp)> **no automount**
Afp::Server: Automount disabled.

History

| Version | Description |
|---------|---|
| 2.06 | The afp automount command has been introduced. |

3.4.2 afp permissive

Description Enable permissive mode, when all users can access the files on USB storage. By default, the setting is disabled.

Command with **no** prefix disables permissive mode, so access to the files have only users with "afp" tag.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis (config-afp)> **permissive**
(config-afp)> **no permissive**

Example (config-afp)> **permissive**
Afp::Server: Permissive mode enabled.

(config-afp)> **no permissive**
Afp::Server: Permissive mode disabled.

History

| Version | Description |
|---------|--|
| 2.06 | The afp permissive command has been introduced. |

3.4.3 afp share

Description Share directory on USB storage.

Command with **no** prefix removes share. If you use no argument, the entire list of shares will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-afp)> share <label> <mount> [timemachine] [description]
(config-afp)> no share [label]
```

Arguments

| Argument | Value | Description |
|-------------|----------------|--------------------------------------|
| label | <i>String</i> | Share name for users. |
| mount | <i>String</i> | Name of directory to share. |
| timemachine | <i>Keyword</i> | Access for Time Machine application. |
| description | <i>String</i> | Description of share. |

Example

```
(config-afp)> share AFP C253-062D:/FOR_AFP timemachine
Afp::Server: Added share "AFP".
```

```
(config-afp)> no share AFP
Afp::Server: Removed share "AFP".
```

History

| Version | Description |
|---------|---|
| 2.06 | The afp share command has been introduced. |

3.5 cifs

Description

Access to a group of commands to manage [CIFS](#) service.

Prefix no

No

Change settings

No

Multiple input

No

Group entry

(config-cifs)

Synopsis

```
(config)> cifs
```

Example

```
(config)> cifs
Core::Configurator: Done.
(config-cifs)>
```

History

| Version | Description |
|---------|--|
| 2.00 | The cifs command has been introduced. |

3.5.1 cifs automount

Description

Enable automounting of USB storages to access via [CIFS](#). By default, the function is enabled.

Command with **no** prefix disables the automounting function.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-cifs)> automount
(config-cifs)> no automount
```

Example

```
(config-cifs)> automount
Cifs::ServerT smb: Automount enabled.
```

```
(config-cifs)> no automount
Cifs::ServerT smb: Automount disabled.
```

History

| Version | Description |
|---------|--|
| 2.00 | The cifs automount command has been introduced. |

3.5.2 cifs map-hidden

Description Enable [ACL](#) and hidden files support for [CIFS](#). By default, the feature is disabled.
Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-cifs)> map-hidden
(config-cifs)> no map-hidden
```

Example

```
(config-cifs)> map-hidden
Cifs::ServerT smb: Map hidden enabled.
```

```
(config-cifs)> no map-hidden
Cifs::ServerT smb: Map hidden enabled.
```

History

| Version | Description |
|---------|---|
| 2.14 | The cifs map-hidden command has been introduced. |

3.5.3 cifs master

Description Enable *Master Browser* function for TSMB server. By default, the setting is enabled.

Command with **no** prefix disables *Master Browser* function.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-cifs)> master
(config-cifs)> no master
```

Example

```
(config-cifs)> master
Cifs::ServerTsmc: Master browser enabled.
```

```
(config-cifs)> no master
Cifs::ServerTsmc: Master browser disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The cifs master command has been introduced. |
| 2.04 | The cifs master command was removed as obsolete. |
| 3.03 | The cifs master command has been returned. |

3.5.4 cifs permissive

Description Enable permissive mode, when all users can access the files on USB storage. By default, the setting is disabled.

Command with **no** prefix disables permissive mode, so access to the files have only users with "cifs" tag.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-cifs)> permissive
(config-cifs)> no permissive
```

Example

```
(config-cifs)> permissive
Cifs::ServerTsmc: Permissive mode enabled.
```

```
(config-cifs)> no permissive
Cifs::ServerTsmB: Permissive mode disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The cifs permissive command has been introduced. |

3.5.5 cifs share

Description

Share directory on USB storage.

Command with **no** prefix removes share. If you use no argument, the entire list of shares will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-cifs)> share <label> <mount> [ <description> ]
```

```
(config-cifs)> no share [ <label> ]
```

Arguments

| Argument | Value | Description |
|-------------|---------------|----------------------------------|
| label | <i>String</i> | Share name, that users will see. |
| mount | <i>String</i> | Name of directory to share. |
| description | <i>String</i> | Description of share. |

Example

```
(config-cifs)> share MYHOME1 10A0CDE9A0CDD4FE:/
Cifs::ServerTsmB: Added share "MYHOME1".
```

```
(config-cifs)> share MYHOME 10A0CDE9A0CDD4FE:/Video/
Cifs::ServerTsmB: Added share "MYHOME".
```

```
(config-cifs)> no share MYHOME1
Cifs::ServerTsmB: Removed share "MYHOME1".
```

History

| Version | Description |
|---------|--|
| 2.00 | The cifs share command has been introduced. |

3.6 cloud control2 security-level

Description

Set Cloud Control2 service security level for Keenetic mobile application. By default, public value is set.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(config)> cloud control2 security-level (public | private)`

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| public | <i>Keyword</i> | Access to the Cloud Control2 is allowed for public, private and protected interfaces. |
| private | <i>Keyword</i> | Access to the Cloud Control2 is allowed for private interfaces only. |

Example

```
(config)> cloud control2 security-level public
CloudControl2::Agent: Security level changed to public.
```

```
(config)> cloud control2 security-level private
CloudControl2::Agent: Security level changed to private.
```

History

| Version | Description |
|---------|---|
| 3.05 | The cloud control2 security-level command has been introduced. |

3.7 components

Description Access to a group of commands to manage firmware components.

Prefix no No

Change settings No

Multiple input No

Group entry (config-comp)

Synopsis `(config)> components`

History

| Version | Description |
|---------|--|
| 2.00 | The components command has been introduced. |

3.7.1 components auto-update channel

Description Set source of components for auto-update feature. By default, value stable is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-comp)> auto-update channel <channel>
(config-comp)> no auto-update channel
```

Arguments

| Argument | Value | Description |
|----------|---------|---|
| channel | stable | Components have been fully tested and recommended for installation. The web interface specifies this channel as Main. |
| | preview | Components contain the latest features and enhancements, but have not been fully tested yet. The web interface specifies this channel as Preview. |
| | draft | The components contain the latest features and are used for testing. The web interface specifies this channel as Dev. |

Example

```
(config-comp)> auto-update channel preview
Components::Manager: Auto-update channel is "preview".
```

```
(config-comp)> no auto-update channel
Components::Manager: Reset an auto-update channel to default.
```

History

| Version | Description |
|---------|--|
| 3.01 | The components auto-update channel command has been introduced. |

3.7.2 components auto-update disable

Description Components auto-update function. By default, automatic update is enabled.

Command with **no** prefix enables auto-update.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-comp)> auto-update disable
```

```
(config-comp)> no auto-update disable
```

Example

```
(config-comp)> auto-update disable
Components::Manager: Components auto-update disabled.
```

```
(config-comp)> no auto-update disable
Components::Manager: Components auto-update enabled.
```

History

| Version | Description |
|---------|--|
| 2.09 | The components auto-update disable command has been introduced. |

3.7.3 components auto-update schedule

Description

Assign a schedule for the auto-update operation. Schedule must be created and customized with [schedule action](#) command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-comp)> auto-update schedule <schedule>
```

```
(config-comp)> no auto-update schedule
```

Arguments

| Argument | Value | Description |
|----------|-----------------|--|
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(config-comp)> auto-update schedule Update
Components::Manager: Set auto-update schedule "Update".
```

```
(config-comp)> no auto-update schedule
Components::Manager: Schedule disabled.
```

History

| Version | Description |
|---------|---|
| 3.03 | The components auto-update schedule command has been introduced. |

3.7.4 components check-update

Description Check the firmware updates for the candidate or member of Modular Wi-Fi System.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config-comp)> check-update [force]`

Arguments

| Argument | Value | Description |
|----------|----------------|-------------------------------|
| force | <i>Keyword</i> | Check for updates constantly. |

Example

```
(config-comp)> check-update
release: 2.15.A.3.0-2
  sandbox: draft
  timestamp: Dec 17 18:58:55
  valid: no
```

```
(config-comp)> check-update force
release: 2.15.A.3.0-2
  sandbox: draft
  timestamp: Dec 17 18:58:55
  valid: no
```

History

| Version | Description |
|---------|---|
| 2.14 | The components check-update command has been introduced. |

3.7.5 components commit

Description Apply the changes made by [components install](#) and [components remove](#) commands.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(config-comp)> commit`

History

| Version | Description |
|---------|---|
| 2.00 | The components commit command has been introduced. |

3.7.6 components install

Description Mark component to install. Final installation carried out with **components commit** command.

Prefix no No

Change settings Yes

Multiple input Yes

Synopsis

```
(config-comp)> install <component>
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---|
| component | <i>String</i> | Component name. List of available components for installation can be displayed with the components list command. |

Example

```
(config-comp)> install ntfs  
Components::Manager: Component "ntfs" is queued for installation.
```

History

| Version | Description |
|---------|--|
| 2.00 | The components install command has been introduced. |

3.7.7 components list

Description Switch to the selected sandbox and mark for installation all the components that require changes to match the version in the sandbox. If you use no argument, the entire list of all components for current sandbox (installed and available) will be displayed. If there is no Internet connection, only the list of installed components will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(config-comp)> list [ sandbox ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| sandbox | <i>String</i> | Remote sandbox, such as stable or beta. |

Example

```
(config-comp)> list

  firmware:
    version: 2.13.C.0.0-1

  sandbox: stable

  local:
    sandbox: beta

  component:
    name: base

  priority: optional
  size: 35233
  version: 2.13.C.0.0-1
  hash: f65428af2a6fd636db779370deb58f40
  installed: 2.13.B.1.0-1

  preset: minimal
  preset: recommended
  queued: yes

  ...
```

History

| Version | Description |
|----------|---|
| 2.00 | The components list command has been introduced. |
| 2.06.A.6 | The <i>sandbox</i> parameter has been introduced. The command components list should be used in favour of components sync . |

3.7.8 components preset

Description

Select a predefined set of components. Installation of preset is carried out with **components commit** command.

Before preset installation check the latest versions of components on the update server with **components list** command. Internet connection is required.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

```
(config-comp)> preset <preset>
```

Arguments

Number and names of presets can be changed, so check the list of available presets with help of **preset [Tab]** command.

| Argument | Value | Description |
|----------|-------------|--|
| preset | minimal | Minimal set of components will be marked. |
| | recommended | Recommended set of components will be marked for installation. |

Example

```
(config-comp)> preset [Tab]

Usage template:
  preset {preset}

Choose:
  minimal
  recommended

(config-comp)> preset recommended
lib::libndmComponents error[268369922]: updates are available ►
for this system.
(config-comp)> commit
Components::Manager: Update task started.
```

History

| Version | Description |
|---------|---|
| 2.00 | The components preset command has been introduced. |

3.7.9 components preview

Description Show size of firmware as current set of components selected with **components install** command.

Prefix no No

Change settings Yes

Multiple input No

Synopsis (config-comp)> **preview**

Example (config-comp)> **preview**

```
preview:
  size: 7733308
```

History

| Version | Description |
|---------|--|
| 2.06 | The components preview command has been introduced. |

3.7.10 components remove

Description Mark component to remove. Final removal carried out with [components commit](#) command.

Prefix no No

Change settings Yes

Multiple input Yes

Synopsis `(config-comp)> remove <component>`

| Argument | Value | Description |
|-----------|---------------|---|
| component | <i>String</i> | Component name. List of available components for removal can be displayed with the components list command. |

Example `(config-comp)> remove ntfs`
 Components::Manager: Component "ntfs" is queued for removal.

| Version | Description |
|---------|---|
| 2.00 | The components remove command has been introduced. |

3.7.11 components validity-period

Description Set a validity period of a local component list. After this time the command [components list](#) will be automatically executed to get actual list of components from update server. By default, value 1800 is used.

Command with **no** prefix resets period to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis `(config-comp)> validity-period <seconds>`

`(config-comp)> no validity-period`

| Argument | Value | Description |
|----------|----------------|--|
| seconds | <i>Integer</i> | Validity period of a local component list in seconds. Can take values in the range from 0 to 604800 inclusively. |

Example (config-comp)> **validity-period 500**
Components::Manager: Validity period set to 500 seconds.

(config-comp)> **no validity-period**
Components::Manager: Validity period reset to 1800 seconds.

History

| Version | Description |
|---------|--|
| 2.03 | The components validity-period command has been introduced. |

3.8 crypto engine

Description Select the type of *ESP* packets processing with *IPsec*.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> crypto engine <type>
```

```
(config)> no crypto engine
```

Arguments

| Argument | Value | Description |
|----------|----------|----------------|
| type | software | Software mode. |

Example (config)> **crypto engine software**
IpSec::CryptoEngineManager: IPsec crypto engine set to "software".

(config)> **no crypto engine**
IpSec::CryptoEngineManager: IPsec crypto engine was disabled.

History

| Version | Description |
|---------|---|
| 2.06 | The crypto engine command has been introduced. |

3.9 crypto ike key

Description Add *IKE* key with remote side ID.

Command with **no** prefix removes specified key.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis `(config)> crypto ike key <name> <psk> (<type> <id> | any)`

`(config)> no crypto ike key <name>`

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| name | <i>String</i> | Name of the key. Latin letters, numbers, dots, hyphens and underscores are acceptable. |
| psk | <i>String</i> | Password for authentication. Password length can be from 6 to 96 characters. |
| type | address | ID type is IP address. |
| | fqdn | ID type is full domain name. |
| | dn | ID type is domain name. |
| | email | ID type is e-mail address. |
| id | <i>String</i> | Value of the remote side ID. |
| any | <i>Keyword</i> | Allow the key usage for any remote side. |

Example

```
(config)> crypto ike key VirtualIPServer ▶
aDjs0C1gvWCs0iE4Ijhs+HRnNPiheGA478 any
IpSec::Manager: "VirtualIPServer": crypto ike key successfully ▶
added.
```

```
(config)> crypto ike key VirtualIPServer ▶
aDjs0C1gvWCs0iE4Ijhs+HRnNPiheGA478R4M6d4+054LLihe any
IpSec::Manager: "VirtualIPServer": crypto ike key successfully ▶
updated.
```

```
(config)> no crypto ike key VirtualIPServer
IpSec::Manager: "VirtualIPServer": crypto ike key successfully ▶
removed.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike key command has been introduced. |

3.10 crypto ike mtu

Description Set the *MTU* value to be transmitted to *IKE*. By default, the *MTU* value is inherited from the interface through which the Internet is accessed.

Command with **no** prefix resets the *MTU* value to default.

Prefix no Yes

Change settings Yes**Multiple input** No

Synopsis

```
(config)> crypto ike mtu value
```

```
(config)> no crypto ike mtu
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| value | <i>Integer</i> | <i>MTU</i> value. Can take values in the range from 576 to 1500 inclusively. |

Example

```
(config)> crypto ike mtu 1400  
IpSec::Manager: IKE MTU value is set to 1400.
```

```
(config)> no crypto ipsec mtu  
IpSec::Manager: Reset IKE MTU value.
```

History

| Version | Description |
|---------|--|
| 3.08 | The crypto ike mtu command has been introduced. |

3.11 crypto ike nat-keepalive

Description Set the timeout between keepalive packets in case of NAT between the client and server *IPsec*. By default, 20 value is set.

Command with **no** prefix resets setting to default.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config)> crypto ike nat-keepalive <nat-keepalive>
```

```
(config)> no crypto ike nat-keepalive
```

Arguments

| Argument | Value | Description |
|---------------|----------------|--|
| nat-keepalive | <i>Integer</i> | Timeout between keepalive packets in seconds. Can take values in the range from 5 to 3600 inclusively. |

Example

```
(config)> crypto ike nat-keepalive 90  
IpSec::Manager: Set crypto ike nat-keepalive timeout to 90 s.
```

```
(config)> no crypto ike nat-keepalive
IpSec::Manager: Reset crypto ike nat-keepalive timeout to 20 s.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike nat-keepalive command has been introduced. |

3.12 crypto ike policy

Description

Access to a group of commands to configure selected *IKE* policy. If *IKE* policy is not found, the command tries to create it.

Command with **no** prefix removes *IKE* policy. At the same time references to this *IKE* policy are automatically deleted from all *IPsec* profiles.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-ike-policy)

Synopsis

```
(config)> crypto ike policy <name>
```

```
(config)> no crypto ike policy <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | <i>IKE</i> policy name. Latin letters, numbers, dots, hyphens and underscores are acceptable. |

Example

```
(config)> crypto ike policy test
IpSec::Manager: "test": crypto ike policy successfully created.
```

```
(config)> no crypto ike policy test
IpSec::Manager: Crypto ike policy "test" removed.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ike policy command has been introduced. |

3.12.1 crypto ike policy lifetime

Description

Set lifetime of *IPsec IKE* association. By default, the value 86400 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config-ike-policy)> lifetime <lifetime>
```

```
(config-ike-policy)> no lifetime
```

Arguments

| Argument | Value | Description |
|----------|---------|--|
| lifetime | Integer | Lifetime of <i>IPsec IKE</i> association in seconds. Can take values in the range from 60 to 2147483647. |

Example

```
(config-ike-policy)> lifetime 3600
```

```
IpSec::Manager: "test": crypto ike policy lifetime set to 3600 s.
```

```
(config-ike-policy)> no lifetime
```

```
IpSec::Manager: "test": crypto ike policy lifetime reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike policy lifetime command has been introduced. |

3.12.2 crypto ike policy mode

Description Set *IKE* protocol version. By default, the value *ikev1* is used.Command with **no** prefix resets setting to default.**Prefix no** Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config-ike-policy)> mode <mode>
```

```
(config-ike-policy)> no mode
```

Arguments

| Argument | Value | Description |
|----------|-------|-------------------------|
| mode | ikev1 | Protocol version IKEv1. |
| | ikev2 | Protocol version IKEv2. |

Example

```
(config-ike-policy)> mode ikev2
```

```
IpSec::Manager: "test": crypto ike policy mode set to "ikev2".
```

```
(config-ike-policy)> no mode
IpSec::Manager: "test": crypto ike policy mode reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike policy mode command has been introduced. |

3.12.3 crypto ike policy negotiation-mode

Description

Set exchange mode for IKEv1 (see [crypto ike policy mode](#) command). By default, the value main is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-ike-policy)> negotiation-mode <negotiation-mode>
```

```
(config-ike-policy)> no negotiation-mode
```

Arguments

| Argument | Value | Description |
|------------------|------------|--|
| negotiation-mode | main | Main mode, protects the identity of the peers. |
| | aggressive | Aggressive mode, does not protect the identity of the peers. |

Example

```
(config-ike-policy)> negotiation-mode aggressive
IpSec::Manager: "test": crypto ike policy negotiation-mode set ►
to "aggressive".
```

```
(config-ike-policy)> no negotiation-mode
IpSec::Manager: "test": crypto ike policy negotiation-mode reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike policy negotiation-mode command has been introduced. |

3.12.4 crypto ike policy proposal

Description

Add reference on existing *IKE* proposal to *IKE* policy. The order of adding has a value for data exchange on the *IKE* protocol.

Command with **no** prefix removes reference on *IKE* proposal.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-ike-policy)> proposal <proposal>
```

```
(config-ike-policy)> no proposal <proposal>
```

Arguments

| Argument | Value | Description |
|----------|--------|---|
| proposal | String | <i>IKE</i> proposal name. Latin letters, numbers, dots, hyphens and underscores are acceptable. |

Example

```
(config-ike-policy)> proposal test
```

```
IpSec::Manager: "test": crypto ike proposal "test" successfully ► added.
```

```
(config-ike-policy)> no proposal
```

```
IpSec::Manager: "test": crypto ike policy proposal "test" ► successfully removed.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike policy proposal command has been introduced. |

3.13 crypto ike proposal

Description

Access to a group of commands to configure selected *IKE* proposal. If *IKE* proposal is not found, the command tries to create it.

A full list of encryption algorithms implemented in the system is provided in the [Appendix](#).

Command with **no** prefix removes *IKE* proposal. At the same time references to this *IKE* proposal are automatically deleted from all *IKE* policy.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-ike-proposal)

Synopsis

```
(config)> crypto ike proposal <name>
```

```
(config)> no crypto ike proposal <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | <i>IKE</i> proposal name. Latin letters, numbers, dots, hyphens and underscores are acceptable. |

Example

```
(config)> crypto ike proposal test
IpSec::Manager: "test": crypto ike proposal successfully created.
```

```
(config)> no crypto ike proposal test
IpSec::Manager: Crypto ike proposal "test" removed.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ike proposal command has been introduced. |

3.13.1 crypto ike proposal aead

Description Enable *AEAD* cypher mode on *IKE* proposal.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(config-ike-proposal)> aead
```

Example

```
(config-ike-proposal)> aead
IpSec::Manager: "TEST": crypto ike proposal "TEST" enabled AEAD mode.
```

History

| Version | Description |
|---------|--|
| 3.05 | The crypto ike proposal aead command has been introduced. |

3.13.2 crypto ike proposal dh-group

Description Add the selected *DH* group to *IKE* proposal to work in the *PFS* mode. The order of adding has a value for data exchange on the *IKE* protocol.

Command with **no** prefix removes the selected group.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-ike-proposal)> dh-group <dh-group>
(config-ike-proposal)> no dh-group <dh-group>
```

Arguments

| Argument | Value | Description |
|----------|-------|---|
| dh-group | 1 | <i>DH</i> group to work in the <i>PFS</i> mode. |
| | 2 | |
| | 5 | |
| | 14 | |
| | 15 | |
| | 16 | |
| | 17 | |
| | 18 | |
| | 19 | |
| | 20 | |
| | 21 | |
| | 25 | |
| | 26 | |
| | 31 | |
| | 32 | |

Example

```
(config-ike-proposal)> dh-group 14
IpSec::Manager: "test": crypto ike proposal DH group "14" ►
successfully added.
```

```
(config-ike-proposal)> no dh-group 14
IpSec::Manager: "test": crypto ike proposal "test" group type ►
successfully removed.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike proposal dh-group command has been introduced. |

3.13.3 crypto ike proposal encryption

Description

Add the selected type of encryption to *IKE* proposal. The order of adding has a value for data exchange on the *IKE* protocol.

Command with **no** prefix removes the selected type of encryption.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-ike-proposal)> encryption <encryption>
(config-ike-proposal)> no encryption <encryption>
```

Arguments

| Argument | Value | Description |
|------------|-------------|--------------------------------|
| encryption | des | Type of <i>IKE</i> encryption. |
| | 3des | |
| | aes-cbc-128 | |
| | aes-cbc-192 | |
| | aes-cbc-256 | |
| | aes-ctr-128 | |
| | aes-ctr-192 | |
| | aes-ctr-256 | |

Example

```
(config-ike-proposal)> encryption des
IpSec::Manager: "test": crypto ike proposal encryption algorithm ►
"des" added.
```

```
(config-ike-proposal)> no encryption des
IpSec::Manager: "test": crypto ike proposal "test" encryption ►
type successfully removed.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ike proposal encryption command has been introduced. |

3.13.4 crypto ike proposal integrity

Description Add the selected value of *HMAC* signature algorithm to *IKE* proposal. The order of adding has a value for data exchange on the *IKE* protocol.

Command with **no** prefix removes the selected algorithm.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-ike-proposal)> integrity <integrity>
```

```
(config-ike-proposal)> no integrity <integrity>
```

Arguments

| Argument | Value | Description |
|-----------|--------|---|
| integrity | md5 | <i>HMAC</i> signature algorithm of <i>IKE</i> messages. |
| | sha1 | |
| | sha256 | |
| | sha384 | |
| | sha512 | |

Example

```
(config-ike-proposal)> integrity sha256
IpSec::Manager: "test": crypto ike proposal integrity algorithm ►
"sha256" successfully added.
```

```
(config-ike-proposal)> no integrity sha256
IpSec::Manager: "test": crypto ike proposal "test" integrity ►
type successfully removed.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ike proposal integrity command has been introduced. |

3.13.5 crypto ike proposal prf

Description

Add the selected *PRF* group to *IKE* proposal.

Command with **no** prefix removes the selected algorithm.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-ike-proposal)> prf <prf>
```

```
(config-ike-proposal)> no prf <prf>
```

Arguments

| Argument | Value | Description |
|----------|----------|---|
| prf | md5 | <i>HMAC</i> signature algorithm of <i>IKE</i> messages. |
| | sha1 | |
| | aes-xcbc | |
| | sha256 | |

| Argument | Value | Description |
|----------|----------|-------------|
| | sha384 | |
| | sha512 | |
| | aes-cmac | |

Example

```
(config-ike-proposal)> prf sha256
IpSec::Manager: "TEST": crypto ike proposal prf algorithm ►
"sha256" successfully added.
```

```
(config-ike-proposal)> no prf sha256
IpSec::Manager: "TEST": crypto ike proposal "TEST" prf type ►
successfully removed.
```

History

| Version | Description |
|---------|---|
| 3.05 | The crypto ike proposal prf command has been introduced. |

3.14 crypto ipsec incompatible

Description

Disable *IPsec* tunnels compatibility checking. By default, the setting is disabled.

Command with **no** prefix enables the checking back.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> crypto ipsec incompatible
```

```
(config)> no crypto ipsec incompatible
```

Example

```
(config)> crypto ipsec incompatible
IpSec::Manager: Compatibility checks is disabled.
```

```
(config)> no crypto ipsec incompatible
IpSec::Manager: Compatibility checks is enabled.
```

History

| Version | Description |
|---------|---|
| 2.10 | The crypto ipsec incompatible command has been introduced. |

3.15 crypto ipsec profile

Description Access to a group of commands to configure selected *IPsec* profile. If profile is not found, the command tries to create it.

Command with **no** prefix removes profile. At the same time references to this profile are automatically deleted from all *IPsec* crypto maps.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-ipsec-profile)

Synopsis

```
(config)> crypto ipsec profile <name>
(config)> no crypto ipsec profile <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| name | <i>String</i> | <i>IPsec</i> profile name. Latin letters, numbers, dots, hyphens and underscores are acceptable. |

Example

```
(config)> crypto ipsec profile test
IpSec::Manager: "test": crypto ipsec profile successfully created.
```

```
(config)> no crypto ipsec profile test
IpSec::Manager: Crypto ipsec profile "test" removed.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ipsec profile command has been introduced. |

3.15.1 crypto ipsec profile authentication-local

Description Set authentication type for local host. By default, value pre-share is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ipsec-profile)> authentication-local <auth>
```

```
(config-ipsec-profile)> no authentication-local
```

Arguments

| Argument | Value | Description |
|----------|-----------|---|
| auth | pre-share | A single available type of authorization for now. |

Example

```
(config-ipsec-profile)> authentication-local pre-share
IpSec::Manager: "test": crypto ipsec profile authentication-local ►
type "pre-share" is set.
```

```
(config-ipsec-profile)> no authentication-local
IpSec::Manager: "test": crypto ipsec profile authentication-local ►
reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec profile authentication-local command has been introduced. |

3.15.2 crypto ipsec profile authentication-remote

Description

Set authentication type for remote host. By default, value pre-share is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-ipsec-profile)> authentication-remote <auth>
```

```
(config-ipsec-profile)> no authentication-remote
```

Arguments

| Argument | Value | Description |
|----------|-----------|---|
| auth | pre-share | A single available type of authorization for now. |

Example

```
(config-ipsec-profile)> authentication-remote pre-share
IpSec::Manager: "test": crypto ipsec profile ►
authentication-remote type "pre-share" is set.
```

```
(config-ipsec-profile)> no authentication-remote
IpSec::Manager: "test": crypto ipsec profile ►
authentication-remote reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ipsec profile authentication-remote command has been introduced. |

3.15.3 crypto ipsec profile dpd-clear

Description

Set method of action when detecting a dead *IKE* peer. By default, the setting is enabled, which means deleting peer information.

Command with **no** prefix set action to restart.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-ipsec-profile)> dpd-clear
```

```
(config-ipsec-profile)> no dpd-clear
```

Example

```
(config-ipsec-profile)> dpd-clear
```

```
IpSec::Manager: "VPNLT2PServer": crypto ipsec profile DPD action ►  
set to "clear".
```

```
(config-ipsec-profile)> no dpd-clear
```

```
IpSec::Manager: "VPNLT2PServer": crypto ipsec profile DPD action ►  
set to "restart".
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto ipsec profile dpd-clear command has been introduced. |

3.15.4 crypto ipsec profile dpd-interval

Description

Set parameters of method to detect a dead *IKE* peer. By default, interval is set to 30, retry-count is set to 3.

Command with **no** prefix resets settings to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-ipsec-profile)> dpd-interval <interval> [retry-count]
```

```
(config-ipsec-profile)> no dpd-interval
```

Arguments

| Argument | Value | Description |
|-------------|----------------|---|
| interval | <i>Integer</i> | The interval of sending <i>DPD</i> packets in seconds. Can take values in the range from 2 to 3600. |
| retry-count | <i>Integer</i> | Number of attempts to send <i>DPD</i> packets. Can take values in the range from 3 to 60. |

Example

```
(config-ipsec-profile)> dpd-interval 5 30
IpSec::Manager: "test": crypto ipsec profile dpd retry count is ►
set to 30.
```

```
(config-ipsec-profile)> no dpd-interval
IpSec::Manager: "test": crypto ipsec profile dpd retry count ►
reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec profile dpd-interval command has been introduced. |

3.15.5 crypto ipsec profile identity-local

Description

Set a local identifier of *IPsec* profile.

Command with **no** prefix removes the local identifier.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-ipsec-profile)> identity-local <type> <id>
```

```
(config-ipsec-profile)> no identity-local
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------------|
| type | address | ID type is IP address. |
| | fqdn | ID type is full domain name. |
| | dn | ID type is domain name. |
| | email | ID type is e-mail address. |
| id | <i>String</i> | Local ID value. |

Example

```
(config-ipsec-profile)> identity-local address 10.10.10.5
IpSec::Manager: "test": crypto ipsec profile identity-local is ►
set to "10.10.10.5" with type "address".
```

```
(config-ipsec-profile)> no identity-local
IpSec::Manager: "test": crypto ipsec profile identity-local reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec profile identity-local command has been introduced. |

3.15.6 crypto ipsec profile match-identity-remote

Description Set remote host identifier for *IPsec* profile.

Command with **no** prefix removes remote host ID.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ipsec-profile)> match-identity-remote (<type> <id> | any)
```

```
(config-ipsec-profile)> no match-identity-remote
```

Arguments

| Argument | Value | Description |
|----------|----------------|---------------------------------|
| type | address | ID type is IP address. |
| | fqdn | ID type is full domain name. |
| | dn | ID type is domain name. |
| | email | ID type is e-mail address. |
| id | <i>String</i> | Remote host ID value. |
| any | <i>Keyword</i> | Allow usage of any remote host. |

Example

```
(config-ipsec-profile)> match-identity-remote any
IpSec::Manager: "test": crypto ipsec profile ►
match-identity-remote is set to any.
```

```
(config-ipsec-profile)> no match-identity-remote
IpSec::Manager: "test": crypto ipsec profile ►
match-identity-remote reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ipsec profile match-identity-remote command has been introduced. |

3.15.7 crypto ipsec profile mode

Description Set the mode of operation *IPsec*. By default, tunnel value is set.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ipsec-profile)> mode <mode>
(config-ipsec-profile)> no mode
```

Arguments

| Argument | Value | Description |
|----------|-----------|---|
| mode | tunnel | Tunnel mode, when the entire IP packet is encrypted and/or authenticated. |
| | transport | Transport mode, when only the payload of the IP packet is encrypted and/or authenticated. |

Example

```
(config-ipsec-profile)> mode transport
IpSec::Manager: "test": crypto ipsec profile mode set to ►
"transport".
```

```
(config-ipsec-profile)> no mode
IpSec::Manager: "test": crypto ipsec profile mode reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec profile mode command has been introduced. |

3.15.8 crypto ipsec profile policy

Description Set the reference to existing *IKE* policy (see [crypto ike policy](#) command).

Command with **no** prefix removes the reference.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ipsec-profile)> policy <policy>
```

```
(config-ipsec-profile)> no policy
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| policy | <i>String</i> | <i>IKE</i> policy name. You can see the list of available policies with help of policy [Tab] command. |

Example

```
(config-ipsec-profile)> policy [Tab]
Usage template:
    policy {name: {A-Z, a-z, 0-9, ., _, -}}
```

```
Choose:
VirtualIPServer
VPNL2TPServer
```

```
(config-ipsec-profile)> policy VirtualIPServer
IpSec::Manager: "TEST": crypto ipsec profile policy set to ►
"VirtualIPServer".
```

```
(config-ipsec-profile)> no policy
IpSec::Manager: "test": crypto ipsec profile policy reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec profile policy command has been introduced. |

3.15.9 crypto ipsec profile preshared-key

Description

Set pre-shared key for *IPsec* profile.

Command with **no** prefix removes pre-shared key.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-ipsec-profile)> preshared-key <preshare-key>
```

```
(config-ipsec-profile)> no preshared-key
```

Arguments

| Argument | Value | Description |
|--------------|---------------|-----------------------|
| preshare-key | <i>String</i> | Pre-shared key value. |

Example (config-ipsec-profile)> **preshared-key testkey**
 IpSec::Manager: "test": crypto ipsec profile preshared key was ► set.

(config-ipsec-profile)> **no preshared-key**
 IpSec::Manager: "test": crypto ipsec profile preshared key reset.

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ipsec profile preshared-key command has been introduced. |

3.15.10 crypto ipsec profile xauth

Description Enable additional authentication *XAuth* for IKEv1 mode. By default, function is disabled.

Command with **no** prefix disables additional authentication.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ipsec-profile)> xauth <type>
```

```
(config-ipsec-profile)> no xauth
```

Arguments

| Argument | Value | Description |
|----------|--------|--------------|
| type | client | Client mode. |
| | server | Server mode. |

Example

```
(config-ipsec-profile)> xauth client  

  IpSec::Manager: "test": crypto ipsec profile xauth set to ► "client".
```

```
(config-ipsec-profile)> no xauth  

  IpSec::Manager: "test": crypto ipsec profile xauth is disabled.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto ipsec profile xauth command has been introduced. |

3.15.11 crypto ipsec profile xauth-identity

Description Set login for additional authentication *XAuth* in client mode.

Command with **no** prefix removes the login.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ipsec-profile)> xauth-identity <identity>
(config-ipsec-profile)> no xauth-identity
```

Arguments

| Argument | Value | Description |
|----------|--------|-------------------------------------|
| identity | String | Login for <i>XAuth</i> client mode. |

Example

```
(config-ipsec-profile)> xauth-identity ident
IpSec::Manager: "test": crypto ipsec profile xauth-identity is ►
set to "ident".
```

```
(config-ipsec-profile)> no xauth-identity
IpSec::Manager: "test": crypto ipsec profile xauth identity is ►
deleted.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec profile xauth-identity command has been introduced. |

3.15.12 crypto ipsec profile xauth-password

Description Set password for additional authentication *XAuth* in client mode.

Command with **no** prefix removes the password.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ipsec-profile)> xauth-password <password>
(config-ipsec-profile)> no xauth-password
```

Arguments

| Argument | Value | Description |
|----------|--------|--|
| password | String | Password for <i>XAuth</i> client mode. |

Example

```
(config-ipsec-profile)> xauth-password password
IpSec::Manager: "test": crypto ipsec profile xauth-password is ►
set.
```

```
(config-ipsec-profile)> no xauth-password
IpSec::Manager: "test": crypto ipsec profile xauth password is ►
deleted.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec profile xauth-password command has been introduced. |

3.16 crypto ipsec rekey delete-delay

Description Set interval before removing the IKE SA after receiving the DELETE command from the remote side. By default, the 10 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> crypto ipsec rekey delete-delay <delay>
```

```
(config)> no crypto ipsec rekey delete-delay
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| delay | <i>Integer</i> | Delay value in seconds. Can take value in the range from 1 to 60. |

Example

```
(config)> crypto ipsec rekey delete-delay 1
IpSec::Manager: Rekey delete-delay value is set to 1.
```

```
(config)> no crypto ipsec rekey delete-delay
IpSec::Manager: Rekey delete-delay value is set to 10.
```

History

| Version | Description |
|---------|---|
| 2.11 | The crypto ipsec rekey delete-delay command has been introduced. |

3.17 crypto ipsec rekey make-before

Description Set the mode when new IKE SA creates before the breaking the old one. By default, the feature is disabled.

Command with **no** prefix disables the mode.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> crypto ipsec rekey make-before
(config)> no crypto ipsec rekey make-before
```

Example

```
(config)> crypto ipsec rekey make-before
IpSec::Manager: Enable make-before-brake scheme for IKEv2 rekey.
```

```
(config)> no crypto ipsec rekey make-before
IpSec::Manager: Disable make-before-brake scheme for IKEv2 rekey.
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto ipsec rekey make-before command has been introduced. |

3.18 crypto ipsec transform-set

Description Access to a group of commands to configure selected *IPsec ESP* transformation during Phase 2. If transformation is not found, the command tries to create it.

Command with **no** prefix removes transformation. At the same time references to this transformation are automatically deleted from all *IPsec* crypto maps.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-ipsec-transform)

Synopsis

```
(config)> crypto ipsec transform-set <name>
(config)> no crypto ipsec transform-set <name>
```

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | <i>IPsec</i> transformation name. Latin letters, numbers, dots, hyphens and underscores are acceptable. |

Example

```
(config)> crypto ipsec transform-set test
IpSec::Manager: "test": crypto ipsec transform-set successfully ►
created.
```

```
(config)> no crypto ipsec transform-set test
IpSec::Manager: Crypto ipsec transform-set "test" removed.
```

| Version | Description |
|---------|--|
| 2.06 | The crypto ipsec transform-set command has been introduced. |

3.18.1 crypto ipsec transform-set aead

Description Enable *AEAD* cypher mode on *IPsec*.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(config-ipsec-transform)> aead
```

Example

```
(config-ipsec-transform)> dh-group 14
IpSec::Manager: "TEST": crypto ipsec transform-set "TEST" enabled ►
AEAD mode.
```

| Version | Description |
|---------|---|
| 3.05 | The crypto ipsec transform-set aead command has been introduced. |

3.18.2 crypto ipsec transform-set cypher

Description Add the selected type of encryption to *IPsec* transformation. The order of adding has a value for data exchange on the *IKE* protocol.

Command with **no** prefix removes the selected type of encryption.

Prefix no Yes

Change settings Yes

Multiple input Yes**Synopsis**

```
(config-ipsec-transform)> cypher <cypher>
```

```
(config-ipsec-transform)> no cypher <cypher>
```

Arguments

| Argument | Value | Description |
|----------|-------------|--------------------------------------|
| cypher | esp-des | Type of <i>IPsec ESP</i> encryption. |
| | esp-3des | |
| | esp-aes-128 | |
| | esp-aes-192 | |
| | esp-aes-256 | |

Example

```
(config-ipsec-transform)> cypher esp-3des
IpSec::Manager: "test": crypto ipsec transform-set cypher ►
"esp-3des" successfully added.
```

```
(config-ipsec-transform)> no cypher esp-3des
IpSec::Manager: "test": crypto ipsec transform-set "test" cypher ►
successfully removed.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec transform-set cypher command has been introduced. |

3.18.3 crypto ipsec transform-set dh-group

Description

Add the selected *DH* group to *IPsec* transformation to work in the *PFS* mode. The order of adding has a value for data exchange on the *IKE* protocol.

Command with **no** prefix removes the selected group.

Prefix no Yes**Change settings** Yes**Multiple input** Yes**Synopsis**

```
(config-ipsec-transform)> dh-group <dh-group>
```

```
(config-ipsec-transform)> no dh-group <dh-group>
```

Arguments

| Argument | Value | Description |
|----------|-------|---|
| dh-group | 1 | <i>DH</i> group to work in the <i>PFS</i> mode. |
| | 2 | |

| Argument | Value | Description |
|----------|-------|-------------|
| | 5 | |
| | 14 | |
| | 15 | |
| | 16 | |
| | 17 | |
| | 18 | |

Example

```
(config-ipsec-transform)> dh-group 14
IpSec::Manager: "test": crypto ipsec transform-set dh-group "14" ►
successfully added.
```

```
(config-ipsec-transform)> no dh-group 14
IpSec::Manager: "test": crypto ipsec transform-set "test" ►
dh-group successfully removed.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec transform-set dh-group command has been introduced. |

3.18.4 crypto ipsec transform-set hmac

Description

Add the selected value of *HMAC* signature algorithm to *IPsec* transformation. The order of adding has a value for data exchange on the *IKE* protocol.

Command with **no** prefix removes the selected algorithm.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-ipsec-transform)> hmac <hmac>
```

```
(config-ipsec-transform)> no hmac <hmac>
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---|
| hmac | esp-md5-hmac | <i>HMAC</i> signature algorithm of <i>IPsec ESP</i> transformation. |
| | esp-sha1-hmac | |
| | esp-sha256-hmac | |

Example

```
(config-ipsec-transform)> hmac esp-sha1-hmac
IpSec::Manager: "test": crypto ipsec transform-set hmac ►
"esp-sha1-hmac" successfully added.
```

```
(config-ipsec-transform)> no hmac esp-sha1-hmac
IpSec::Manager: "test": crypto ipsec transform-set "test" hmac ►
successfully removed.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec transform-set hmac command has been introduced. |

3.18.5 crypto ipsec transform-set lifetime

Description

Set lifetime of selected *IPsec* transformation. By default, the value 3600 is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-ipsec-transform)> lifetime <lifetime>
```

```
(config-ipsec-transform)> no lifetime
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| lifetime | <i>Integer</i> | Lifetime of <i>IPsec</i> transformation in seconds. Can take values in the range from 60 to 2147483647. |

Example

```
(config-ipsec-transform)> lifetime 8640
IpSec::Manager: "test": crypto ipsec transform-set lifetime set ►
to 8640 s.
```

```
(config-ipsec-transform)> no lifetime
IpSec::Manager: "test": crypto ipsec transform-set lifetime reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto ipsec transform-set lifetime command has been introduced. |

3.19 crypto map

Description Access to a group of commands to configure selected *IPsec* crypto map. If crypto map is not found, the command tries to create it.

Command with **no** prefix removes crypto map.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-crypto-map)

Synopsis

```
(config)> crypto map <name>
```

```
(config)> no crypto map <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | <i>IPsec</i> crypto map name. Latin letters, numbers, dots, hyphens and underscores are acceptable. |

Example

```
(config)> crypto map test  
IpSec::Manager: "test": crypto map successfully created.
```

```
(config)> no crypto map test  
IpSec::Manager: Crypto map profile "test" removed.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto map command has been introduced. |

3.19.1 crypto map connect

Description Enable automatic unconditional *IPsec* connection to the remote host. Setting has no meaning if basic remote host was set to any (see **crypto map set-peer** command). By default, setting is disabled and connection is established when attempting to transmit traffic through the *IPsec ESP* transformation.

Command with **no** prefix disables automatic unconditional connection.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> connect
```

```
(config-crypto-map)> no connect
```

Example

```
(config-crypto-map)> connect  
IpSec::Manager: "test": crypto map autoconnect enabled.
```

```
(config-crypto-map)> no connect  
IpSec::Manager: "test": crypto map autoconnect disabled.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto map connect command has been introduced. |

3.19.2 crypto map enable

Description

Enable selected *IPsec* crypto map. By default, setting is enabled.

Command with **no** prefix disables crypto map.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> enable
```

```
(config-crypto-map)> no enable
```

Example

```
(config-crypto-map)> enable  
IpSec::Manager: "test": crypto map enabled.
```

```
(config-crypto-map)> no enable  
IpSec::Manager: "test": crypto map disabled.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto map enable command has been introduced. |

3.19.3 crypto map fallback-check-interval

Description

Enable periodic checking of basic host availability and return to it in case of presence basic and backup remote hosts both. By default, setting is disabled.

Command with **no** prefix disables checking.

Prefix no

Yes

Change settings

Yes

Multiple input No

Synopsis

```
(config-crypto-map)> fallback-check-interval <interval-value>
(config-crypto-map)> no fallback-check-interval
```

Arguments

| Argument | Value | Description |
|----------------|----------------|---|
| interval-value | <i>Integer</i> | Period of checking in seconds. Can take values in the range from 60 to 86400. |

Example

```
(config-crypto-map)> fallback-check-interval 120
IpSec::Manager: "test": crypto map fallback check interval is ►
set to 120.
```

```
(config-crypto-map)> no fallback-check-interval
IpSec::Manager: "test": crypto map fallback check interval is ►
cleared.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto map fallback-check-interval command has been introduced. |

3.19.4 crypto map force-encaps

Description Enforce the *ESP* packet wrapping mode in *UDP* to bypass the firewall and NAT. Command with **no** prefix disables the mode.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> force-encaps
(config-crypto-map)> no force-encaps
```

Example

```
(config-crypto-map)> force-encaps
IpSec::Manager: "test": crypto map force ESP in UDP encapsulation ►
enabled.
```

```
(config-crypto-map)> no force-encaps
IpSec::Manager: "test": crypto map force ESP in UDP encapsulation ►
disabled.
```

History

| Version | Description |
|---------|---|
| 2.08 | The crypto map force-encaps command has been introduced. |

3.19.5 crypto map l2tp-server dhcp route

Description

Assign a route which is transmitted in DHCP INFORM messages to the [L2TP](#) server clients.

Command with **no** prefix cancels the specified route. If you use no arguments, the entire list of routes will be cleared.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-crypto-map)> l2tp-server dhcp route <address> <mask>
```

```
(config-crypto-map)> no l2tp-server dhcp route [ <address> <mask> ]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | Network client address. |
| mask | <i>IP-mask</i> | Network client mask. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |

Example

```
(config-crypto-map)> l2tp-server dhcp route 192.168.2.0/24  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
added DHCP INFORM route to 192.168.2.0/255.255.255.0.
```

```
(config-crypto-map)> l2tp-server no dhcp route  
IpSec::Manager: "VPNL2TPServer": Cleared DHCP INFORM routes.
```

History

| Version | Description |
|---------|---|
| 2.12 | The crypto map l2tp-server dhcp route command has been introduced. |

3.19.6 crypto map l2tp-server enable

Description

Enable [L2TP](#) server on [IPsec](#) crypto map. By default, the setting is enabled.

Command with **no** prefix disables the setting.

Prefix no

Yes

Change settings Yes**Multiple input** No

Synopsis

```
(config-crypto-map)> l2tp-server enable
```

```
(config-crypto-map)> no l2tp-server enable
```

Example

```
(config-crypto-map)> l2tp-server enable
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
enabled.
```

```
(config-crypto-map)> no l2tp-server enable
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
disabled.
```

History

| Version | Description |
|---------|---|
| 2.11 | The crypto map l2tp-server enable command has been introduced. |

3.19.7 crypto map l2tp-server interface

Description Bind *L2TP* server to the specified interface.
Command with **no** prefix unbinds the server.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config-crypto-map)> l2tp-server interface <interface>
```

```
(config-crypto-map)> no l2tp-server interface
```

Arguments

| Argument | Value | Description |
|-----------|------------------|---|
| interface | <i>Interface</i> | Full name or an alias of the interface. You can see the list of available interfaces with help of l2tp-server interface [Tab] command. |

Example

```
(config-crypto-map)> l2tp-server interface [Tab]
```

```
Usage template:
  interface {interface}
```

```
Choose:
  GigabitEthernet1
```

```

ISP
WifiMaster0/AccessPoint2
WifiMaster1/AccessPoint1
WifiMaster0/AccessPoint3
WifiMaster0/AccessPoint0
    AccessPoint
WifiMaster1/AccessPoint2
WifiMaster0/AccessPoint1
    GuestWiFi

```

```

(config-crypto-map)> l2tp-server interface ISP
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
is bound to ISP.

```

```

(config-crypto-map)> no l2tp-server interface ISP
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
is unbound.

```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto map l2tp-server interface command has been introduced. |

3.19.8 crypto map l2tp-server ipv6cp

Description Enable IPv6 support. DHCP IPv6 pools are created for each *L2TP* server. By default, the setting is disabled.

Command with **no** prefix disables IPv6 support.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (config-crypto-map)> **l2tp-server ipv6cp**

| (config-crypto-map)> **no l2tp-server ipv6cp**

Example (config-crypto-map)> **l2tp-server ipv6cp**
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
IPv6CP is enabled.

```

(config-crypto-map)> no l2tp-server ipv6cp
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
IPv6CP is disabled.

```

History

| Version | Description |
|---------|---|
| 3.00 | The crypto map l2tp-server ipv6cp command has been introduced. |

3.19.9 crypto map l2tp-server lcp echo

Description Specify the testing rules of the *L2TP* server connections with *LCP* echo tools.
Command with **no** prefix disables *LCP* echo.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> l2tp-server lcp echo <interval> <count>
(config-crypto-map)> no l2tp-server lcp echo
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| interval | <i>Integer</i> | Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply. |
| count | <i>Integer</i> | The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated. |

Example

```
(config-crypto-map)> l2tp-server lcp echo 5 3
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
set LCP echo to "5" : "3".
```

```
(config-crypto-map)> no l2tp-server lcp echo
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
LCP echo disabled.
```

History

| Version | Description |
|---------|---|
| 2.11 | The crypto map l2tp-server lcp echo command has been introduced. |

3.19.10 crypto map l2tp-server mru

Description Set *MRU* value to be transmitted to *L2TP* server. By default, 1200 value is used.
Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> l2tp-server mru <mr>
```

```
(config-crypto-map)> no l2tp-server mru
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| mru | <i>Integer</i> | <i>MRU</i> value. Can take values in the range from 128 to 1500 inclusively. |

Example

```
(config-crypto-map)> l2tp-server mru 1500  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
set MRU to "1500".
```

```
(config-crypto-map)> no l2tp-server mru  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
MRU reset to default.
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto map l2tp-server mru command has been introduced. |

3.19.11 crypto map l2tp-server mtu

Description Set *MTU* value to be transmitted to *L2TP* server. By default, 1400 value is used.

Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> l2tp-server mtu <mt>
```

```
(config-crypto-map)> no l2tp-server mtu
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| mtu | <i>Integer</i> | <i>MTU</i> value. Can take values in the range from 576 to 1500 inclusively. |

Example

```
(config-crypto-map)> l2tp-server mtu 1400  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
set MTU to "1400".
```

```
(config-crypto-map)> no l2tp-server mtu
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
MTU reset to default.
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto map l2tp-server mtu command has been introduced. |

3.19.12 crypto map l2tp-server multi-login

Description Allow connection to [L2TP](#) server for multiple users from one account.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> l2tp-server multi-login
```

```
(config-crypto-map)> no l2tp-server multi-login
```

Example

```
(config-crypto-map)> l2tp-server multi-login
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
multiple login is enabled.
```

```
(config-crypto-map)> no l2tp-server multi-login
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
multiple login is disabled.
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto map l2tp-server multi-login command has been introduced. |

3.19.13 crypto map l2tp-server nat

Description Enable translation of addresses for [L2TP](#) server.

Command with **no** prefix disables the translation.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> l2tp-server nat
```

```
(config-crypto-map)> no l2tp-server nat
```

Example

```
(config-crypto-map)> l2tp-server nat  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
SNAT is enabled.
```

```
(config-crypto-map)> no l2tp-server nat  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
SNAT is disabled.
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto map l2tp-server nat command has been introduced. |

3.19.14 crypto map l2tp-server range

Description

Assign a pool of addresses for the clients of [L2TP](#) server. By default, size 100 is used.

Command with **no** prefix removes a pool.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> l2tp-server range <begin> <end> | <size>
```

```
(config-crypto-map)> no l2tp-server range
```

Arguments

| Argument | Value | Description |
|----------|-------------------|------------------------|
| begin | <i>IP address</i> | Start address of pool. |
| end | <i>IP address</i> | End address of pool. |
| size | <i>Integer</i> | Pool size. |

Example

```
(config-crypto-map)> l2tp-server range 172.16.2.33 172.16.2.38  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
pool range set from "172.16.2.33" to "172.16.2.38".
```

```
(config-crypto-map)> l2tp-server range 172.16.2.33 100  
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►  
pool range set from "172.16.2.33" to "172.16.2.132".
```

```
(config-crypto-map)> no l2tp-server range
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
pool range deleted.
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto map l2tp-server range command has been introduced. |

3.19.15 crypto map l2tp-server static-ip

Description Bind IP address to the user. User account must have ipsec-l2tp tag.

Command with **no** prefix removes binding.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> static-ip <user> <address>
```

```
(config-crypto-map)> no static-ip <user>
```

Arguments

| Argument | Value | Description |
|----------|-------------------|---------------------|
| user | <i>String</i> | Username. |
| address | <i>IP address</i> | IP address to bind. |

Example

```
(config-crypto-map)> l2tp-server static-ip admin 172.16.2.33
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
static IP "172.16.2.33" assigned to user "admin".
```

```
(config-crypto-map)> no l2tp-server static-ip admin
IpSec::Manager: "VPNL2TPServer": crypto map L2TP/IPsec server ►
static IP removed for user "admin".
```

History

| Version | Description |
|---------|--|
| 2.11 | The crypto map l2tp-server static-ip command has been introduced. |

3.19.16 crypto map nail-up

Description Enable automatic renegotiation of *IPsec ESP* transformations at their obsolescence. By default, setting is disabled.

Command with **no** prefix disables automatic renegotiation.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> nail-up
(config-crypto-map)> no nail-up
```

Example

```
(config-crypto-map)> nail-up
IpSec::Manager: "test": crypto map SA renegotiation enabled.
```

```
(config-crypto-map)> no nail-up
IpSec::Manager: "test": crypto map SA renegotiation disabled.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto map nail-up command has been introduced. |

3.19.17 crypto map reauth-passive

Description Enable passive reauthentication of *IPsec* crypto map. By default, setting is disabled.

Command with **no** prefix disables passive reauthentication.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> reauth-passive
(config-crypto-map)> no reauth-passive
```

Example

```
(config-crypto-map)> reauth-passive
IpSec::Manager: "VPNL2TPServer": crypto map SA passive ►
reauthentication enabled.
```

```
(config-crypto-map)> no reauth-passive
IpSec::Manager: "VPNL2TPServer": crypto map SA passive ►
reauthentication disabled.
```

History

| Version | Description |
|---------|---|
| 2.11 | The crypto map reauth-passive command has been introduced. |

3.19.18 crypto map set-peer

Description Set basic remote host for *IPsec* connection.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> set-peer <remote-ip>
(config-crypto-map)> no set-peer
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---|
| remote-ip | <i>String</i> | IP address or domain name of remote host. |
| | any | Accept any incoming connections. |

Example

```
(config-crypto-map)> set-peer ipsec.test.com
IpSec::Manager: "test": crypto map primary remote peer is set ►
to "ipsec.test.com".
```

```
(config-crypto-map)> no set-peer
IpSec::Manager: "test": crypto map remote primary and fallback ►
peer reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto map set-peer command has been introduced. |

3.19.19 crypto map set-peer-fallback

Description Set backup remote host for *IPsec* connection. This setting can be made after assignment of basic host (see [crypto map set-peer](#) command).

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> set-peer-fallback <remote-ip>
(config-crypto-map)> no set-peer-fallback
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---|
| remote-ip | <i>String</i> | IP address or domain name of remote host. |

Example

```
(config-crypto-map)> set-peer-fallback test.com
IpSec::Manager: "test": crypto map fallback remote peer cannot ►
be set without primary peer.
```

```
(config-crypto-map)> no set-peer-fallback
IpSec::Manager: "test": crypto map fallback remote peer reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto map set-peer-fallback command has been introduced. |

3.19.20 crypto map set-profile

Description

Set the reference to existing *IPsec* profile (see [crypto ipsec profile](#) command).
Command with **no** prefix removes the reference.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> set-profile <profile>
```

```
(config-crypto-map)> no set-profile
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| profile | <i>String</i> | <i>IPsec</i> profile name. You can see the list of available profiles with help of set-profile [Tab] command. |

Example

```
(config-crypto-map)> set-profile [Tab]
```

```
Usage template:
  set-profile {name: {A-Z, a-z, 0-9, ., _, -}}
```

Choose:

```
TEST
MYMY
```

```
VirtualIPServer
VPLN2TPServer
```

```
(config-crypto-map)> set-profile test
IpSec::Manager: "test": crypto map ipsec profile is set to "test".
```



```
(config-crypto-map)> no set-profile
IpSec::Manager: "test": crypto map ipsec profile reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto map set-profile command has been introduced. |

3.19.21 crypto map set-tcpmss

Description

Set the limit on the segment size of outgoing *TCP* sessions within *IPsec* tunnel. If the *MSS* value, which is transmitted in the header of SYN-packets, exceeds the specified limit, command changes it. Path MTU Discovery mode allows automatically identify *MSS* limit.

Command with **no** prefix removes all limits from *MSS*.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> set-tcpmss <mss-value>
```

```
(config-crypto-map)> no set-tcpmss
```

Arguments

| Argument | Value | Description |
|-----------|----------------|--|
| mss-value | <i>Integer</i> | <i>MSS</i> upper limit. Can take values in the range from 576 to 1500. |
| | pmtu | Enable Path MTU Discovery mode. |

Example

```
(config-crypto-map)> set-tcpmss 1280
IpSec::Manager: "test": crypto map tcpmss set to 1280.
```

```
(config-crypto-map)> no set-tcpmss
IpSec::Manager: "test": crypto map tcpmss reset.
```

History

| Version | Description |
|---------|---|
| 2.06 | The crypto map set-tcpmss command has been introduced. |

3.19.22 crypto map set-transform

Description

Set the reference to existing *IPsec ESP* transformation (see **crypto ipsec transform-set** command).

Command with **no** prefix removes the reference.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> set-transform <transform-set>
(config-crypto-map)> no set-transform
```

Arguments

| Argument | Value | Description |
|---------------|--------|---|
| transform-set | String | IPsec transformation name. You can see the list of available transformations with help of set-transform [Tab] command. |

Example

```
(config-crypto-map)> set-transform [Tab]
Usage template:
  set-transform {name: {A-Z, a-z, 0-9, ., _, -}}

Choose:
VirtualIPServer
VPNL2TPServer
```

```
(config-crypto-map)> set-transform test
IpSec::Manager: "test": crypto map ipsec transform-set is set ►
to "test".
```

```
(config-crypto-map)> no set-transform
IpSec::Manager: "test": crypto map ipsec transform-set reset.
```

History

| Version | Description |
|---------|--|
| 2.06 | The crypto map set-transform command has been introduced. |

3.19.23 crypto map traffic-selectors

Description Assign an object group as *IPsec* Phase 2 selectors.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> traffic-selectors <local> <remote>
```

```
(config-crypto-map)> no traffic-selectors
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------------|
| local | <i>String</i> | Name of local object group. |
| remote | <i>String</i> | Name of remote object group. |

Example

```
(config-crypto-map)> traffic-selectors ►
 WEBADMIN_IPSEC_VPNL2TPServer-local ►
 WEBADMIN_IPSEC_VPNL2TPServer-remote
IpSec::Config::CryptoMap: "test": set traffic-selectors to ►
 "_WEBADMIN_IPSEC_VPNL2TPServer-local": ►
 "_WEBADMIN_IPSEC_VPNL2TPServer-remote".
```

```
(config-crypto-map)> no traffic-selectors
IpSec::Config::CryptoMap: "test": reset traffic-selectors.
```

History

| Version | Description |
|---------|--|
| 4.00 | The crypto map traffic-selectors command has been introduced. |

3.19.24 crypto map tunnel-interface

Description

Assign the [XFRM](#) interface to a crypto map for site-to-site traffic routing.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> tunnel-interface <interface>
```

```
(config-crypto-map)> no tunnel-interface
```

Arguments

| Argument | Value | Description |
|-----------|------------------|-----------------------------|
| interface | <i>Interface</i> | Full name of the interface. |

Example

```
(config-crypto-map)> tunnel-interface XFRM0
IpSec::Config::CryptoMap: "TEST": linked tunnel interface "XFRM0".
```

```
(config-crypto-map)> no tunnel-interface
IpSec::Config::CryptoMap: "TEST": reset tunnel interface.
```

History

| Version | Description |
|---------|---|
| 4.01 | The crypto map tunnel-interface command has been introduced. |

3.19.25 crypto map virtual-ip dhcp route

Description

Assign a route which is transmitted in DHCP INFORM messages to the Virtual IP server clients.

Command with **no** prefix deletes the specified route. If you use no arguments, the entire list of routes will be cleared.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-crypto-map)> virtual-ip dhcp route <address> <mask>
```

```
(config-crypto-map)> no virtual-ip dhcp route [ <address> <mask> ]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | Network client address. |
| mask | <i>IP-mask</i> | Network client mask. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |

Example

```
(config-crypto-map)> virtual-ip dhcp route 192.168.2.0/24  
IpSec::ManagerVirtualIp: "VirtualIPServerIKE2": crypto map ►  
Virtual IP server added DHCP INFORM route to ►  
192.168.2.0/255.255.255.0.
```

```
(config-crypto-map)> no virtual-ip dhcp route 192.168.2.0/24  
IpSec::ManagerVirtualIp: "VirtualIPServerIKE2": crypto map ►  
Virtual IP server DHCP INFORM route to 192.168.2.0/255.255.255.0 ►  
removed.
```

```
(config-crypto-map)> no virtual-ip dhcp route  
IpSec::ManagerVirtualIp: "VirtualIPServerIKE2": crypto map ►  
Virtual IP server DHCP INFORM routes cleared.
```

History

| Version | Description |
|---------|--|
| 3.06 | The crypto map virtual-ip dhcp route command has been introduced. |

3.19.26 crypto map virtual-ip dns-server

Description Set *DNS* server issued to clients in Virtual IP server mode.

Command with **no** prefix deletes the address.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> virtual-ip dns-server <address>
(config-crypto-map)> no virtual-ip dns-server
```

Arguments

| Argument | Value | Description |
|----------|-------------------|----------------------------------|
| address | <i>IP address</i> | IP address of <i>DNS</i> server. |

Example

```
(config-crypto-map)> virtual-ip dns-server 10.5.5.5
IpSec::Manager: "test": crypto map Virtual IP DNS server set to ►
"10.5.5.5".
```

```
(config-crypto-map)> no virtual-ip dns-server
IpSec::Manager: "test": crypto map Virtual IP DNS server deleted.
```

History

| Version | Description |
|---------|--|
| 2.08 | The crypto map virtual-ip dns-server command has been introduced. |

3.19.27 crypto map virtual-ip enable

Description Enable Virtual IP server mode, when clients receive addresses from a given range. The value of a remote subnet, specified in the corresponding access-list, will be ignored. By default, the setting is disabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> virtual-ip enable
(config-crypto-map)> no virtual-ip enable
```

Example (config-crypto-map)> **virtual-ip enable**
IpSec::Manager: "test": crypto map Virtual IP mode enabled.

(config-crypto-map)> **no virtual-ip enable**
IpSec::Manager: "test": crypto map Virtual IP mode disabled.

History

| Version | Description |
|---------|--|
| 2.08 | The crypto map virtual-ip enable command has been introduced. |

3.19.28 crypto map virtual-ip multi-login

Description Allow connection to Virtual IP server for multiple users from one account.
Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis (config-crypto-map)> **virtual-ip multi-login**

(config-crypto-map)> **no virtual-ip multi-login**

Example (config-crypto-map)> **virtual-ip multi-login**
IpSec::Manager: "VirtualIPServer": crypto map Virtual IP server ▶ multiple login is enabled.

(config-crypto-map)> **no virtual-ip multi-login**
IpSec::Manager: "VirtualIPServer": crypto map Virtual IP server ▶ multiple login is disabled.

History

| Version | Description |
|---------|---|
| 3.05 | The crypto map virtual-ip multi-login command has been introduced. |

3.19.29 crypto map virtual-ip nat

Description Enable translation for remote network of Virtual IP extension server.
Command with **no** prefix removes the rule.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> virtual-ip nat
```

```
(config-crypto-map)> no virtual-ip nat
```

Example

```
(config-crypto-map)> virtual-ip nat  
IpSec::Manager: "test": crypto map Virtual IP remote pool SNAT ►  
is enabled.
```

```
(config-crypto-map)> no virtual-ip nat  
IpSec::Manager: "test": crypto map Virtual IP remote pool SNAT ►  
is disabled.
```

History

| Version | Description |
|---------|---|
| 2.08 | The crypto map virtual-ip nat command has been introduced. |

3.19.30 crypto map virtual-ip range

Description Configure the range of addresses issued to clients in Virtual IP server mode. Command with **no** prefix removes the range.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> virtual-ip range <begin> (<end> | <size>)
```

```
(config-crypto-map)> no virtual-ip range
```

Arguments

| Argument | Value | Description |
|----------|-------------------|-------------------------------------|
| begin | <i>IP address</i> | The beginning of the address range. |
| end | <i>IP address</i> | The end of the address range. |
| size | <i>Integer</i> | Address range size. |

Example

```
(config-crypto-map)> virtual-ip range 10.5.0.0 20  
IpSec::Manager: "test": crypto map Virtual IP pool range set ►  
from "10.5.0.0" to "10.5.0.19" (CIDR 10.5.0.0/27).
```

```
(config-crypto-map)> no virtual-ip range  
IpSec::Manager: "test": crypto map Virtual IP pool range deleted.
```

History

| Version | Description |
|---------|---|
| 2.08 | The crypto map virtual-ip range command has been introduced. |

3.19.31 crypto map virtual-ip static-ip**Description**

Bind IP address to the user. User account must have ipsec-xauth tag.

Command with **no** prefix removes binding.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-crypto-map)> virtual-ip static-ip <user> <address>
```

```
(config-crypto-map)> no virtual-ip static-ip <user>
```

Arguments

| Argument | Value | Description |
|----------|-------------------|---------------------|
| user | <i>String</i> | Username. |
| address | <i>IP address</i> | IP address to bind. |

Example

```
(config-crypto-map)> virtual-ip static-ip admin 172.20.0.1  
IpSec::ManagerVirtualIp: "VirtualIPServer": crypto map Virtual ►  
IP server static address "172.20.0.1" assigned to user "admin".
```

```
(config-crypto-map)> no virtual-ip static-ip admin  
IpSec::ManagerVirtualIp: "VirtualIPServer": crypto map Virtual ►  
IP server static address removed for user "admin".
```

History

| Version | Description |
|---------|---|
| 3.05 | The crypto map virtual-ip static-ip command has been introduced. |

3.20 dlna**Description**

Access to a group of commands to manage [DLNA](#) service.

Prefix no

No

Change settings

No

Multiple input

No

Group entry

(config-dlna)

Synopsis

```
(config)> dlna
```

Example

```
(config)> dlna
Core::Configurator: Done.
(config-dlna)>
```

History

| Version | Description |
|---------|--|
| 2.00 | The dlna command has been introduced. |

3.20.1 dlina container

Description

Set default container for *DLNA* service.

Command with **no** prefix resets the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dlna)> container <container>
```

```
(config-dlna)> no container
```

Arguments

| Argument | Value | Description |
|-----------|--------|--|
| container | browse | Show the content of browse container by default. |
| | music | Show the content of music container by default. |
| | video | Show the content of video container by default. |
| | images | Show the content of images container by default. |

Example

```
(config-dlna)> container browse
Dlna::Server: Set default container to "browse".
```

```
(config-dlna)> no container
Dlna::Server: Reset default container.
```

History

| Version | Description |
|---------|---|
| 2.11 | The dlina container command has been introduced. |

3.20.2 dlina db-directory

Description

Specify the directory with database of multimedia content.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dlna)> db-directory <directory>
(config-dlna)> no db-directory
```

Arguments

| Argument | Value | Description |
|-----------|--------|--------------------------------------|
| directory | String | Name of the directory with database. |

Example

```
(config-dlna)> db-directory 46E243F4E243E6B1:/components/dlna/Dlna::Server: DB directory set.
```

```
(config-dlna)> no db-directory
Dlna::Server: DB directory removed.
```

History

| Version | Description |
|---------|---|
| 2.06 | The dlna db-directory command has been introduced. |

3.20.3 dlna directory

Description Specify the directory with media content.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dlna)> directory <directory> [media-type]
(config-dlna)> no directory <directory>
```

Arguments

| Argument | Value | Description |
|------------|--------|---|
| directory | String | Name of the directory with media content. |
| media-type | audio | Content type is audio. |
| | video | Content type is video. |
| | images | Content type is images. |

Example

```
(config-dlna)> directory ▶
46E243F4E243E6B1:/components/transmission/download/
Dlna::Server: ▶
"46E243F4E243E6B1:/components/transmission/download/" directory ▶
added.
```

```
(config-dlna)> no directory ▶
46E243F4E243E6B1:/components/transmission/download/
Dlna::Server: ▶
"46E243F4E243E6B1:/components/transmission/download/" directory ▶
removed.
```

History

| Version | Description |
|---------|--|
| 2.00 | The dlna directory command has been introduced. |
| 2.06 | Parameter <code>media-type</code> was added. |

3.20.4 dlna display-name

Description Assign custom name to [DLNA](#) server.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dlna)> display-name <display-name>
```

```
(config-dlna)> no display-name
```

Arguments

| Argument | Value | Description |
|---------------------------|---------------|------------------------|
| <code>display-name</code> | <i>String</i> | Server name to assign. |

Example

```
(config-dlna)> display-name MYDLNA
Dlna::Server: Set a display name.
```

History

| Version | Description |
|---------|---|
| 2.12 | The dlna display-name command has been introduced. |

3.20.5 dlna interface

Description Set the router interface through which media content will be transmitted. You can enter up to 16 interfaces.

Command with **no** prefix removes the defined interface from the list. If you use no argument, the entire list of interfaces will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config-dlna)> interface <interface>
```

```
(config-dlna)> no interface <interface>
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(config-dlna)> interface [Tab]
```

```
Usage template:
  interface {interface}
```

```
Choose:
  GigabitEthernet1
  ISP
  WifiMaster0/AccessPoint2
  WifiMaster1/AccessPoint1
  WifiMaster0/AccessPoint3
  WifiMaster0/AccessPoint0
  AccessPoint
  WifiMaster1/AccessPoint2
  WifiMaster0/AccessPoint1
  GuestWiFi
```

```
(config-dlna)> interface FastEthernet0/Vlan1
```

```
(config-dlna)> no interface FastEthernet0/Vlan1
```

History

| Version | Description |
|---------|--|
| 2.00 | The dlna interface command has been introduced. |

3.20.6 dlna port

Description Set DLNA server port for HTTP (descriptions, SOAP, media transfer) traffic. By default, value 8200 is used.

Command with **no** prefix resets port to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dlna)> port <port>
(config-dlna)> no port
```

Arguments

| Argument | Value | Description |
|----------|----------------|------------------|
| port | <i>Integer</i> | The port number. |

Example

```
(config-dlna)> port 8999
Dlna::Server: Port changed to 8999.
```

```
(config-dlna)> no port
Dlna::Server: Port reset to 8200.
```

History

| Version | Description |
|---------|---|
| 2.00 | The dlna port command has been introduced. |

3.20.7 dlna rescan

Description

Renew info about files in the directory with media content.

Note: If keyword **full** is specified, deleting and recreating of the content database happens. This may take a long time, so it is recommended to do this when the content database structure is damaged.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(config-dlna)> rescan [ full ]
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| full | <i>Keyword</i> | Specifies if rebuilding of database content is needed. |

Example

```
(config-dlna)> rescan
```

```
(config-dlna)> rescan full
```

History

| Version | Description |
|---------|---|
| 2.00 | The dlna rescan command has been introduced. |

3.20.8 dlna sort

Description

Set the sort criteria for *DLNA* server files.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-dlna)> sort <key> [ <order> ]
```

```
(config-dlna)> no sort
```

Arguments

| Argument | Value | Description |
|----------|------------|--|
| key | class | Sort by class of media content (audio, video, images). |
| | title | Sort by title. |
| | date | Sort by date. |
| | track | Sort by track. |
| | album | Sort by album. |
| order | ascending | Sort files in ascending order. The parameter is used by default. |
| | descending | Sort files in descending order. |

Example

```
(config-dlna)> sort date  
Dlna::Server: "date by ascending" sort criterion appended.
```

```
(config-dlna)> sort date ascending  
Dlna::Server: "date by ascending" sort criterion appended.
```

```
(config-dlna)> no sort  
Dlna::Server: Sort criteria removed.
```

History

| Version | Description |
|---------|---|
| 2.11 | The dlna sort command has been introduced. |

3.21 dns-proxy

Description Access to a group of commands to manage DNS proxy service.

Prefix no No

Change settings No

Multiple input No

Group entry (config-dnspx)

Synopsis (config)> **dns-proxy**

Example (config)> **dns-proxy**
Core::Configurator: Done.
(config-dnspx)>

History

| Version | Description |
|---------|---|
| 2.04 | The dns-proxy command has been introduced. |

3.21.1 dns-proxy filter assign host preset

Description Assign a filtering preset to a network device.

See the list of presets you can with help of [show dns-proxy filter presets](#) command.

Command with **no** prefix removes the defined preset for host. If you use no argument, the entire list of presets will be cleared for hosts.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis (config-dnspx)> **filter assign host preset** <host> <preset>

(config-dnspx)> **no filter assign host preset** [<host>]

Arguments

| Argument | Value | Description |
|----------|-------------|-----------------------------|
| host | MAC address | Network device MAC address. |
| preset | String | Preset name. |

Example (config-dnspx)> **filter assign host preset 04:d4:c1:51:b1:59 ►**
opendns-family

```
Dns::Filter::Public: Associated host "04:d4:c1:51:b1:59" with ▶
preset "opendns-family".
```

```
(config-dnsp) > no filter assign host preset 04:d4:c1:51:b1:59
Dns::Filter::Public: Removed preset for host "04:d4:c1:51:b1:59".
```

```
(config-dnsp) > no filter assign host preset
Dns::Filter::Public: Removed presets for hosts.
```

History

| Version | Description |
|---------|---|
| 3.08 | The dns-proxy filter assign host preset command has been introduced. |

3.21.2 dns-proxy filter assign host profile

Description

Assign a filtering profile to a network device.

Add new profile you can with help of [dns-proxy filter profile](#) command.

See the list of profiles you can with help of [show dns-proxy filter profiles](#) command.

Command with **no** prefix removes the defined profile for host. If you use no argument, the entire list of profiles will be cleared for hosts.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-dnsp) > filter assign host profile <host> <profile>
```

```
(config-dnsp) > no filter assign host profile [<host>]
```

Arguments

| Argument | Value | Description |
|----------|--------------------|-----------------------------|
| host | <i>MAC address</i> | Network device MAC address. |
| profile | <i>String</i> | Profile name. |

Example

```
(config-dnsp) > filter assign host profile 00:d2:c1:54:bc:59 test
Dns::Filter::Public: Associated host "00:d2:c1:54:bc:59" with ▶
profile "test".
```

```
(config-dnsp) > no filter assign host profile 00:d2:c1:54:bc:59
Dns::Filter::Public: Removed profile for host "00:d2:c1:54:bc:59".
```

```
(config-dnsp) > no filter assign host profile
Dns::Filter::Public: Removed profiles for hosts.
```


| History | Version | Description |
|---------|---------|--|
| | 3.08 | The dns-proxy filter assign host profile command has been introduced. |

3.21.3 dns-proxy filter assign interface preset

Description Assign a filtering preset to all devices on segment (exclude ones with already assigned profiles/presets).

See the list of presets you can with help of [show dns-proxy filter presets](#) command.

Command with **no** prefix removes the defined preset for interface. If you use no argument, the entire list of presets for interfaces will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> filter assign interface preset <interface> <preset>
(config-dnspx)> no filter assign interface preset [ <interface> ]
```

| Arguments | Argument | Value | Description |
|-----------|-----------|------------------|--|
| | interface | <i>Interface</i> | Network interface name. Must have a private or protected security level. |
| | preset | <i>String</i> | Preset name. |

Example

```
(config-dnspx)> filter assign interface preset Bridge0 ►
quad9-security
Dns::Filter::Public: Associated interface "Bridge0" with preset ►
"quad9-security".
```

```
(config-dnspx)> no filter assign interface preset Bridge0
Dns::Filter::Public: Removed preset for interface "Bridge0".
```

```
(config-dnspx)> no filter assign interface preset
Dns::Filter::Public: Removed presets for interfaces.
```

| History | Version | Description |
|---------|---------|--|
| | 3.08 | The dns-proxy filter assign interface preset command has been introduced. |

3.21.4 dns-proxy filter assign interface profile

Description Assign a filtering profile to all devices on segment (exclude ones with already assigned profiles/presets).

Add new profile you can with help of [dns-proxy filter profile](#) command.

See the list of profiles you can with help of [show dns-proxy filter profiles](#) command.

Command with **no** prefix removes the defined profile for interface. If you use no argument, the entire list of profiles for interfaces will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> filter assign interface profile <interface> <profile>
(config-dnspx)> no filter assign interface profile [ <interface> ]
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Network interface name. Must have a private or protected security level. |
| profile | <i>String</i> | Profile name. |

Example

```
(config-dnspx)> filter assign interface profile ►
GigabitEthernet0/Vlan1 DnsProfile0
Dns::Filter::Public: Associated interface ►
"GigabitEthernet0/Vlan1" with profile "DnsProfile0".
```

```
(config-dnspx)> no filter assign interface profile ►
GigabitEthernet0/Vlan1
Dns::Filter::Public: Removed profile for interface ►
"GigabitEthernet0/Vlan1".
```

```
(config-dnspx)> no filter assign interface profile
Dns::Filter::Public: Removed profiles for interfaces.
```

History

| Version | Description |
|---------|---|
| 3.08 | The dns-proxy filter assign interface profile command has been introduced. |

3.21.5 dns-proxy filter engine

Description Selects DNS engine.

Command with **no** prefix disables the feature. Config request will return empty value in case of disabled filter.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> filter engine <engine>
(config-dnspx)> no filter engine
```

Arguments

| Argument | Value | Description |
|----------|-------------|---|
| engine | interceptor | One of available DNS filtering engines. |
| | public | |
| | nextdns | |
| | opkg | |
| | skydns | |

Example

```
(config-dnspx)> filter engine interceptor
Dns::Filter::Interceptor: Enabled.
```

```
(config-dnspx)> no filter engine
Dns::Manager: Disabled filter engine.
```

History

| Version | Description |
|---------|---|
| 3.08 | The dns-proxy filter engine command has been introduced. |

3.21.6 dns-proxy filter profile

Description Create a user-defined DNS filtering profile.

Command with **no** prefix removes profile.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> filter profile <name>
(config-dnspx)> no filter profile <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | Profile name in reduced form, not more than 32 characters. The maximum number of profiles is 8. |

Example

```
(config-dnspx)> filter profile test
Dns::Filter::Public: Created profile "test".
```

```
(config-dnspx)> no filter profile test
Dns::Filter::Public: Removed profile "test".
```

History

| Version | Description |
|---------|--|
| 3.08 | The dns-proxy filter profile command has been introduced. |

3.21.7 dns-proxy filter profile description

Description

Assign description for DNS filtering profile.

Command with **no** prefix deletes the profile description.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dnspx)> filter profile <name>description <description>
```

```
(config-dnspx)> no filter profile <name>description <description>
```

Arguments

| Argument | Value | Description |
|-------------|---------------|---------------------------------------|
| name | <i>String</i> | Profile name. |
| description | <i>String</i> | Arbitrary description of the profile. |

Example

```
(config-dnspx)> filter profile test description MyProfile1
Dns::Filter::Public: Set description to profile "test".
```

```
(config-dnspx)> no filter profile test description
Dns::Filter::Public: Cleared description of profile "test".
```

History

| Version | Description |
|---------|--|
| 3.08 | The dns-proxy filter profile description command has been introduced. |

3.21.8 dns-proxy filter profile dns53 upstream

Description Add IP address of the DNS server to user-defined filtering profile. Number of servers are limited to 6.

Command with **no** prefix removes the defined server from the list. If you use no argument, the entire list of servers will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> filter profile <name>dns53 upstream <address> [:<port>]
(config-dnspx)> no filter profile <name>dns53 description [ <address>
[:<port>]]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|---------------------------|
| name | <i>String</i> | Profile name. |
| address | <i>IP address</i> | IP address of the server. |
| port | <i>Integer</i> | The server port. |

Example

```
(config-dnspx)> filter profile test dns53 upstream 1.1.1.1
Dns::Filter::Public: Added DNS name server 1.1.1.1 to profile ►
"test".
```

```
(config-dnspx)> no filter profile test dns53 upstream
Dns::Filter::Public: Removed DNS name server from profile "test".
```

```
(config-dnspx)> no filter profile test dns53 upstream 1.1.1.1
Dns::Filter::Public: Removed DNS name server 1.1.1.1 from profile ►
"test".
```

History

| Version | Description |
|---------|---|
| 3.08 | The dns-proxy filter profile dns53 upstream command has been introduced. |

3.21.9 dns-proxy filter profile https upstream

Description Add [DNS over HTTPS](#) server to user-defined filtering profile. Number of servers are limited to 6.

Command with **no** prefix removes the defined server from the list. If you use no argument, the entire list of servers will be cleared.

Prefix no Yes

Change settings Yes**Multiple input** Yes

Synopsis

```
(config-dnspx)> filter profile <name>https upstream <url> [ spki <hash> ]
(config-dnspx)> no filter profile <name>https description [ <url> ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|-----------------------|
| name | <i>String</i> | Profile name. |
| url | <i>String</i> | URL of DNS service. |
| hash | <i>String</i> | Hash TLS certificate. |

Example

```
(config-dnspx)> filter profile test https upstream ▶
https://dns.google/resolve
Dns::Filter::Public: Added DNS-over-HTTPS name server ▶
https://dns.google/resolve to profile "test".
```

```
(config-dnspx)> no filter profile test https upstream ▶
https://dns.google/resolve
Dns::Filter::Public: Removed DNS-over-HTTPS name server ▶
https://dns.google/resolve from profile "test".
```

```
(config-dnspx)> no filter profile test https upstream
Dns::Filter::Public: Removed DNS-over-HTTPS name server from ▶
profile "test".
```

History

| Version | Description |
|---------|---|
| 3.08 | The dns-proxy filter profile https upstream command has been introduced. |

3.21.10 dns-proxy filter profile intercept enable

Description Enable transit DNS requests interception for filtering profile. By default, the interception is disabled.

Command with **no** prefix disables the interception for filtering profile.

Prefix no Yes**Change settings** Yes**Multiple input** Yes

Synopsis

```
(config-dnspx)> filter profile <name>intercept enable
(config-dnspx)> no filter profile <name>intercept enable
```

| Argument | Value | Description |
|----------|---------------|-------------------------|
| name | <i>String</i> | Filtering profile name. |

Example

```
(config-dnspx)> filter profile DnsProfile0 intercept enable
Dns::Filter::Public: Enabled intercept in profile "DnsProfile0".
```

```
(config-dnspx)> no filter profile DnsProfile0 intercept enable
Dns::Filter::Public: Disabled intercept in profile "DnsProfile0".
```

| Version | Description |
|---------|---|
| 3.09 | The dns-proxy filter profile intercept enable command has been introduced. |

3.21.11 dns-proxy filter profile tls upstream

Description Add *DNS over TLS* server to user-defined filtering profile. Number of servers are limited to 6.

Command with **no** prefix removes the defined server from the list. If you use no argument, the entire list of servers will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> filter profile <name>tls upstream <address> [ <port>
] [ sni <fqdn> ] [ spki <hash> ]

(config-dnspx)> no filter profile <name>tls description [ <address> ] [
<port> ]
```

| Argument | Value | Description |
|----------|----------------------------------|------------------------|
| name | <i>String</i> | Profile name. |
| address | <i>IP address</i> <i>FQDN</i> | Address of the server. |
| port | <i>Integer</i> | The server port. |
| fqdn | <i>String</i> | Full domain name. |
| hash | <i>String</i> | Hash TLS certificate. |

Example

```
(config-dnspx)> filter profile test tls upstream 1.1.1.1 8853 ►
sni cloudflare-dns.com
Dns::Filter::Public: Added DNS-over-TLS name server 1.1.1.1 to ►
profile "test".
```

```
(config-dnspx)> no filter profile test tls upstream 1.1.1.1 8853
Dns::Filter::Public: Removed DNS-over-TLS name server 1.1.1.1 ►
from profile "test".
```

```
(config-dnspx)> no filter profile test tls upstream
Dns::Filter::Public: Removed DNS-over-TLS name server from ►
profile "test".
```

History

| Version | Description |
|---------|---|
| 3.08 | The dns-proxy filter profile tls upstream command has been introduced. |

3.21.12 dns-proxy https upstream

Description

Add *DNS over HTTPS* server.

Command with **no** prefix removes the defined server from the list. If you use no argument, the entire list of servers will be cleared.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-dnspx)> https upstream <url> [ <format> ] [ sni <hash> ] [ on
<interface> ] [ domain <domain> ]
```

```
(config-dnspx)> no https upstream [ <url> ]
```

Arguments

| Argument | Value | Description |
|-----------|------------------|-----------------------------------|
| url | <i>String</i> | Custom URL of DNS service. |
| format | dnsm | The format to represent DNS data. |
| | json | |
| hash | <i>String</i> | Hash TLS certificate. |
| interface | <i>Interface</i> | Interface name to configure. |
| domain | <i>String</i> | The domain name. |

Example

```
(config-dnspx)> https upstream ►
https://cloudflare-dns.com/dns-query?ct=application/dns-json json
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ►
"https://cloudflare-dns.com/dns-query?ct=application/dns-json" ►
(json) added.
```

```
(config-dnspx)> https upstream https://dns.adguard.com/dns-query ►
dnsm
```



```
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ▶
"https://dns.adguard.com/dns-query" (dnsm) added.
```

```
(config-dnspx)> https upstream https://dns.adguard.com/dns-query ▶
dnsm on ISP
```

```
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ▶
"https://dns.adguard.com/dns-query" (dnsm) added.
```

```
(config-dnspx)> https upstream https://my.domain.com/dns-query ▶
dnsm domain my.lib
```

```
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ▶
"https://my.domain.com/dns-query" (dnsm) added.
```

```
(config-dnspx)> no https upstream ▶
https://dns.adguard.com/dns-query
```

```
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ▶
"https://dns.adguard.com/dns-query" deleted.
```

```
(config-dnspx)> no https upstream
```

```
Dns::Secure::ManagerDoh: DNS-over-HTTPS name servers cleared.
```

History

| Version | Description |
|---------|--|
| 3.01 | The dns-proxy https upstream command has been introduced. |
| 3.08 | The domain argument was added. |

3.21.13 dns-proxy intercept enable

Description

Enable transit DNS requests interception for system profile. By default, the interception is disabled.

Command with **no** prefix disables the interception for system profile.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dnspx)> intercept enable
```

```
(config-dnspx)> no intercept enable
```

Example

```
(config-dnspx)> intercept enable
```

```
Dns::Filter::Filter: Enable intercept for system profile.
```

```
(config-dnspx)> no intercept enable
```

```
Dns::Filter::Filter: Disable intercept for system profile.
```

History

| Version | Description |
|---------|--|
| 3.06 | The dns-proxy intercept enable command has been introduced. |
| 3.08 | The dns-proxy intercept enable command was removed as obsolete. |
| 3.09 | The dns-proxy intercept enable command has been added again. |

3.21.14 dns-proxy max-ttl

Description

Set maximum TTL for DNS proxy cached entries.

Command with **no** prefix removes maximum TTL value.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dnspx)> max-ttl <max-ttl>
```

```
(config-dnspx)> no max-ttl
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| max-ttl | <i>Integer</i> | The maximum value of TTL. Can take values in the range from 1 to 604800000 milliseconds (1 week). |

Example

```
(config-dnspx)> max-ttl 10000
Dns::Proxy: Dns-proxy set max-ttl to 10000.
```

```
(config-dnspx)> no max-ttl
Dns::Proxy: Dns-proxy max-ttl cleared.
```

History

| Version | Description |
|---------|---|
| 2.05 | The dns-proxy max-ttl command has been introduced. |

3.21.15 dns-proxy proceed

Description

Set interval between concurrent requests, which is sent by DNS proxy to multiple DNS servers. By default, 500 value is used.

Command with **no** prefix resets proceed to default.

Prefix no

Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> proceed <proceed>
(config-dnspx)> no proceed
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| proceed | <i>Integer</i> | The value of DNS proxy proceed in milliseconds. Can take values in the range from 1 to 50000. |

Example

```
(config-dnspx)> proceed 600
Dns::Proxy: Dns-proxy set 600 msec. proceed.
```

```
(config-dnspx)> no proceed
Dns::Proxy: Dns-proxy proceed timeout reset.
```

History

| Version | Description |
|---------|---|
| 2.04 | The dns-proxy proceed command has been introduced. |

3.21.16 dns-proxy rebind-protect

Description Enable protect against *DNS rebinding* attacks. By default, auto mode is used. Command with **no** prefix disables protection.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> rebind-protect (auto | strict)
(config-dnspx)> no rebind-protect
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| auto | <i>Keyword</i> | Protect subnets for private interfaces. |
| strict | <i>Keyword</i> | Protect subnets from list IANA IPv4 Special-Purpose Address Registry ¹ . |

Example

```
(config-dnspx)> rebind-protect auto
Dns::Manager: Enabled rebind protection.
```

¹ <https://www.iana.org/assignments/iana-ipv4-special-registry/iana-ipv4-special-registry.xhtml>

```
(config-dnspx)> no rebind-protect
Dns::Manager: Disabled rebind protection.
```

History

| Version | Description |
|---------|--|
| 3.04 | The dns-proxy rebind-protect command has been introduced. |

3.21.17 dns-proxy srr-reset

Description Set DNS proxy send-response rating reset time. By default, value 600000 is used.

Command with **no** prefix resets time reset to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> srr-reset <srr-reset>
```

```
(config-dnspx)> no srr-reset
```

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| srr-reset | <i>Integer</i> | The value of time reset in milliseconds. Can take values in the range from 0 to 600000. |

Example

```
(config-dnspx)> srr-reset 111
Dns::Manager: Set send-response rating reset time to 111 ms.
```

```
(config-dnspx)> no srr-reset
Dns::Manager: Reset send-response rating reset time to default.
```

History

| Version | Description |
|---------|---|
| 2.12 | The dns-proxy srr-reset command has been introduced. |

3.21.18 dns-proxy tls upstream

Description Add *DNS over TLS* server.

Command with **no** prefix removes the defined server from the list. If you use no argument, the entire list of servers will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> tls upstream <address> [<port>] [sni <fqdn>] [spki
<hash>] [on <interface>] [domain <domain>]
```

```
(config-dnspx)> no tls upstream [<address>] [<port>]
```

Arguments

| Argument | Value | Description |
|-----------|-------------------|------------------------------|
| address | <i>IP address</i> | IP address of the server. |
| port | <i>Integer</i> | The server port. |
| fqdn | <i>String</i> | Full domain name. |
| hash | <i>String</i> | Hash TLS certificate. |
| interface | <i>Interface</i> | Interface name to configure. |
| domain | <i>String</i> | The domain name. |

Example

```
(config-dnspx)> tls upstream 1.1.1.1 853 sni cloudflare-dns.com
Dns::Secure::ManagerDot: DNS-over-TLS name server 1.1.1.1:853 ►
added.
```

```
(config-dnspx)> tls upstream 1.1.1.1 853 sni cloudflare-dns.com ►
on ISP
Dns::Secure::ManagerDot: DNS-over-TLS name server 1.1.1.1:853 ►
added.
```

```
(config-dnspx)> tls upstream 144.144.144.143 853 sni ►
my.domain.com domain my.lib
Dns::Secure::ManagerDot: DNS-over-TLS name server ►
144.144.144.143:853 added.
```

```
(config-dnspx)> no tls upstream 1.1.1.1 853
Dns::Secure::ManagerDot: DNS-over-TLS name server 1.1.1.1:853 ►
deleted.
```

```
(config-dnspx)> no tls upstream
Dns::Secure::ManagerDot: DNS-over-TLS name servers cleared.
```

History

| Version | Description |
|---------|--|
| 3.01 | The dns-proxy tls upstream command has been introduced. |
| 3.08 | The domain argument was added. |

3.22 dpn accept

Description

Accept user agreement [DPN](#). Until the license is accepted, the configurator does not accept any command except READ_ONLY.

Prefix no No**Change settings** No**Multiple input** No**Synopsis** `(config)> dpn accept`**Example** `(config)> dpn accept
Core::Legal: Accepted dpn version 20200330.`

| Version | Description |
|---------|--|
| 3.05 | The dpn accept command has been introduced. |

3.23 dyndns profile

Description Access to a group of commands to configure DynDns profile. If the profile is not found, the command tries to create it. You can enter up to 32 profiles.Command with **no** prefix removes DynDns profile.**Prefix no** Yes**Change settings** Yes**Multiple input** Yes**Group entry** (config-dyndns)**Synopsis** `(config)> dyndns profile <name>``(config)> no dyndns profile <name>`

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | The profile name. Maximum name length is 64 characters. |

Example `(config)> dyndns profile _WEBADMIN
Core::Configurator: Done.
(config-dyndns)>`

| Version | Description |
|---------|--|
| 2.00 | The dyndns profile command has been introduced. |

3.23.1 dyndns profile domain

Description Assign permanent domain name to the computer. You need to register this domain name on the site [dyndns.com](http://www.dyndns.com)² or [no-ip.com](http://www.no-ip.com)³ before execution.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> domain <domain>
(config-dyndns)> no domain
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| domain | <i>String</i> | The domain name. Maximum domain name length is 254 characters. |

Example

```
(config-dyndns)> domain support.ddns.net
DynDns::Profile: "_WEBADMIN": domain saved..
```

```
(config-dyndns)> no domain
ynDns::Profile: "_WEBADMIN" domain cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The dyndns profile domain command has been introduced. |

3.23.2 dyndns profile password

Description Set password for access via DynDns.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> password <password>
(config-dyndns)> no password
```

² <http://www.dyndns.com>

³ <http://www.no-ip.com>

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| password | <i>String</i> | The password for authentication. Maximum password length is 64 characters. |

Example

```
(config-dyndns)> password 123456789
DynDns::Profile: "_WEBADMIN": password saved.
```

```
(config-dyndns)> no password
DynDns::Profile: "_WEBADMIN" password cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The dyndns profile password command has been introduced. |

3.23.3 dyndns profile send-address

Description

Enable the necessity of connection IP address indication in DynDns request. Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dyndns)> send-address
```

```
(config-dyndns)> no send-address
```

Example

```
(config-dyndns)> send-address
DynDns::Profile: Send address is enabled.
```

```
(config-dyndns)> no send-address
DynDns::Profile: Send address is disabled.
```

History

| Version | Description |
|---------|---|
| 2.03 | The dyndns profile send-address command has been introduced. |

3.23.4 dyndns profile type

Description

Set DynDns type depending on the site where the domain name was registered.

Prefix no

Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> type <type>
```

```
(config-dyndns)> no type
```

Arguments

| Argument | Value | Description |
|----------|--------|---|
| type | dyndns | Used if the domain name was registered on the dyndns.com ⁴ site. |
| | noip | Used if the domain name was registered on the no-ip.com ⁵ site. |
| | custom | Used if the domain name was registered on the other site (defined with dyndns profile url command). |

Example

```
(config-dyndns)> type noip  
DynDns::Profile: "_WEBADMIN": type saved.
```

```
(config-dyndns)> no type  
DynDns::Profile: "_WEBADMIN" type cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The dyndns profile type command has been introduced. |

3.23.5 dyndns profile update-interval

Description Set the address update interval for DynDns.

Command with **no** prefix cancels the ability to update.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> update-interval <days> days [ <hours> hours ]  
[ <minutes> minutes ] [ <seconds> seconds ]
```

```
(config-dyndns)> no update-interval
```

Arguments

| Argument | Value | Description |
|----------|----------------|------------------------|
| days | <i>Integer</i> | Interval time in days. |

⁴ <http://www.dyndns.com>

⁵ <http://www.no-ip.com>

| Argument | Value | Description |
|----------|----------------|---------------------------|
| hours | <i>Integer</i> | Interval time in hours. |
| minutes | <i>Integer</i> | Interval time in minutes. |
| seconds | <i>Integer</i> | Interval time in seconds. |

Example

```
(config-dyndns)> update-interval 5 days 5 hours 5 minutes 5 ►
seconds
DynDns::Profile: Interval is set to 450305 seconds.
```

```
(config-dyndns)> update-interval 5 days
DynDns::Profile: Interval is set to 432000 seconds.
```

```
(config-dyndns)> no update-interval
DynDns::Profile: Periodic registration disabled.
```

History

| Version | Description |
|---------|--|
| 2.03 | The dyndns profile update-interval command has been introduced. |

3.23.6 dyndns profile url

Description Set dynamic DNS service custom URL.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> url <url>
(config-dyndns)> no url
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| url | <i>String</i> | Custom URL of DNS service. |

Example

```
(config-dyndns)> url http://members.dyndns.org/nic/update
DynDns::Profile: "_WEBADMIN": URL saved.
```

```
(config-dyndns)> no url
DynDns::Profile: "_WEBADMIN" URL cleared.
```

History

| Version | Description |
|---------|--|
| 2.05 | The dyndns profile url command has been introduced. |

3.23.7 dyndns profile username

Description Set username for access via DynDns.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> username <username>
```

```
(config-dyndns)> no username
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| username | <i>String</i> | Username for authentication. Maximum name length is 64 characters. |

Example

```
(config-dyndns)> username test@gmail.com
DynDns::Profile: "_WEBADMIN": username saved.
```

```
(config-dyndns)> no username
DynDns::Profile: "_WEBADMIN" username cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The dyndns profile username command has been introduced. |

3.24 easyconfig check

Description Access to a group of commands to configure Internet access check. To check Internet access, first requests to the default gateway are sent. If the answer is received, then the remote hosts specified in the settings are polled. The duration and frequency of requests are also specified in the settings. If all the checks have been passed, then the Internet access is provided.

Prefix no No

Change settings No

Multiple input No

Group entry (ezconfig-check)

Synopsis (config)> **easyconfig check**

Example

```
(config)> easyconfig check
(ezconfig-check)>
```

History

| Version | Description |
|---------|--|
| 2.00 | The easyconfig check command has been introduced. |

3.24.1 easyconfig check exclude-gateway

Description

Disable default gateway check. By default, the setting is enabled.

Command with **no** prefix enables the check back.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(ezconfig-check)> exclude-gateway
```

```
(ezconfig-check)> no exclude-gateway
```

Example

```
(ezconfig-check)> exclude-gateway  
Network::InternetChecker: Gateway checking disabled.
```

```
(ezconfig-check)> no exclude-gateway  
Network::InternetChecker: Gateway checking enabled.
```

History

| Version | Description |
|---------|--|
| 2.05 | The easyconfig check exclude-gateway command has been introduced. |

3.24.2 easyconfig check host

Description

Specify the hostnames used to send requests for Internet access detection. By default, host address is google.com.

Command with **no** prefix resets hostnames to default.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(ezconfig-check)> host <host>
```

```
(ezconfig-check)> no host [ <host> ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------|
| host | <i>String</i> | Remote host name. |

```

Example (ezconfig-check)> host google.com
Network::InternetChecker: "google.com" name added.

(ezconfig-check)> no host google.com
Network::InternetChecker: "google.com" name removed.

(ezconfig-check)> no host
Network::InternetChecker: Domain name set reset to default.

```

History

| Version | Description |
|---------|---|
| 2.00 | The easyconfig check host command has been introduced. |

3.24.3 easyconfig check max-fails

Description Specify the number of consecutive failed requests to the hostnames determined with **easyconfig check host** command. By default, value 3 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```

(ezconfig-check)> max-fails <count>
(ezconfig-check)> no max-fails

```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| count | <i>Integer</i> | Amount of failed requests. Can take values in the range from 2 to 8 inclusively. |

```

Example (ezconfig-check)> max-fails 5
Network::InternetChecker: A new maximum fail count set to 5.

(ezconfig-check)> no max-fails
Network::InternetChecker: The maximum fail count reset to the ►
default value (3).

```

History

| Version | Description |
|---------|--|
| 2.00 | The easyconfig check max-fails command has been introduced. |

3.24.4 easyconfig check period

Description Set a period of checking. By default, the value 15 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (ezconfig-check)> **period** *<period>*

| (ezconfig-check)> **no period**

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| period | <i>Integer</i> | Check interval in seconds. Can take values in the range from 10 to 60 inclusively. |

Example

```
(ezconfig-check)> period 20
Network::InternetChecker: A new check period set to 20 seconds.
```

```
(ezconfig-check)> no period
Network::InternetChecker: Check period reset to default (15 ►
seconds).
```

History

| Version | Description |
|---------|---|
| 2.00 | The easyconfig check period command has been introduced. |

3.25 easyconfig disable

Description Disable initial setup wizard. By default, the setting is enabled.

Command with **no** prefix enables initial setup wizard.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (config)> **easyconfig disable**

| (config)> **no easyconfig disable**

Example (config)> **easyconfig disable**
EasyConfig::Manager: Disabled.

(config)> **no easyconfig disable**
EasyConfig::Manager: Enabled.

History

| Version | Description |
|---------|--|
| 3.01 | The easyconfig disable command has been introduced. |

3.26 eula accept

Description Accept user agreement [EULA](#). Until the license is accepted, the configurator does not accept any command except READ_ONLY.

Prefix no No

Change settings No

Multiple input No

Synopsis (config)> **eula accept**

Example (config)> **eula accept**
Core::Eula: "20181001" license accepted.

History

| Version | Description |
|---------|---|
| 2.15 | The eula accept command has been introduced. |

3.27 igmp-proxy

Description Access to a group of commands to configure [IGMP](#).

Prefix no No

Change settings No

Multiple input No

Group entry (igmp-proxy)

Synopsis (config)> **igmp-proxy**

Example (config)> **igmp-proxy**
(igmp-proxy)>

History

| Version | Description |
|---------|--|
| 2.06 | The igmp-proxy command has been introduced. |

3.27.1 igmp-proxy fast-leave

Description

Enable the *IGMP* fast-leave to immediately remove a port from the forwarding entry for a multicast group when the port receives a leave message.

Command with **no** prefix disables the feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(igmp-proxy)> fast-leave
```

```
(igmp-proxy)> no fast-leave
```

Example

```
(igmp-proxy)> fast-leave
Igmpp::Proxy: Enabled Fast Leave.
```

```
(igmp-proxy)> no fast-leave
Igmpp::Proxy: Disabled Fast Leave.
```

History

| Version | Description |
|---------|---|
| 3.09 | The igmp-proxy fast-leave command has been introduced. |

3.27.2 igmp-proxy force

Description

Force old version of *IGMP*. By default, the setting is disabled and the protocol version is selected in automatic mode.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(igmp-proxy)> force <protocol>
```

```
(igmp-proxy)> no force
```


| Argument | Value | Description |
|----------|---------|--------------------------------------|
| protocol | igmp-v1 | Apply filtering to incoming packets. |
| | igmp-v2 | Apply filtering to outgoing packets. |

Example

```
(igmp-proxy)> force igmp-v1
Igmpp::Proxy: Forced protocol: igmp-v1.
```

```
(igmp-proxy)> no force
Igmpp::Proxy: Enabled IGMP auto-detect.
```

| Version | Description |
|---------|--|
| 2.08 | The igmp-proxy force command has been introduced. |

3.28 igmp-snooping disable

Description Disable IGMP snooping. Command is available in Client, Repeater or AP modes only.

Command with **no** prefix enables IGMP snooping.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> igmp-snooping disable
```

Example

```
(config)> igmp-snooping disable
Igmpp::Snooping: Disabled.
```

```
(config)> no igmp-snooping disable
Igmpp::Snooping: Enabled.
```

| Version | Description |
|---------|---|
| 2.12 | The igmp-snooping disable command has been introduced. |

3.29 interface

Description Access to a group of commands to configure the selected interface. If the interface is not found, the command tries to create it.

The interface name specifies its class that inherits certain properties, see the diagrams in the [Appendix](#). The commands work in relation to classes. The corresponding interface class is specified in the command description.

Command with **no** prefix deletes the interface.

| | |
|------------------------|-------------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | Yes |
| Group entry | (config-if) |

Synopsis

```
(config)> interface <name>
(config)> no interface <name>
```

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(config)> interface [Tab]
```

Usage template:

```
interface {name}
```

Choose:

```

          Pvc
          Vlan
          CdcEthernet
          UsbModem
          RealtekEthernet
          AsixEthernet
          Davicom
          UsbQmi
          UsbLte
          Yota
          Bridge
          PPPoE
          SSTPEthernet
          SSTP
          PPTP
          L2TP
          ZeroTier
          Wireguard
          Proxy
          OpenVPN
          IPIP
          XFRM
          TunnelSixInFour
```

```

IKE
Gre
EoIP
Clat
MapT
DsLite
TunnelFourInSix
Chilli

```

History

| Version | Description |
|---------|---|
| 2.00 | The interface command has been introduced. |

3.29.1 interface atf disable

Description Disable [ATF](#) for AP 5 GHz. By default, the setting is disabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFiMaster

Synopsis

```
(config-if)> atf disable
```

```
(config-if)> no atf disable
```

Example

```
(config-if)> atf disable
Network::Interface::Rtx::WifiMaster: "WifiMaster1": Airtime ►
Fairness disabled.
```

```
(config-if)> no atf disable
Network::Interface::Rtx::WifiMaster: "WifiMaster1": Airtime ►
Fairness enabled.
```

History

| Version | Description |
|---------|---|
| 3.02 | The interface atf disable command has been introduced. |

3.29.2 interface atf inbound

Description Enable [ATF](#) for transferring inbound packets only for AP 5 GHz. By default, the setting is disabled.

Command with **no** prefix disables the setting.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** WiFiMaster

Synopsis

```
(config-if)> atf inbound
```

```
(config-if)> no atf inbound
```

Example

```
(config-if)> atf inbound
Network::Interface::Rtx::WifiMaster: "WifiMaster0": Airtime ►
Fairness inbound is set.
```

```
(config-if)> atf inbound
Network::Interface::Rtx::WifiMaster: "WifiMaster1": Airtime ►
Fairness inbound is set.
```

```
(config-if)> no atf inbound
Network::Interface::Rtx::WifiMaster: "WifiMaster1": Airtime ►
Fairness inbound is unset.
```

History

| Version | Description |
|---------|---|
| 3.02 | The interface atf inbound command has been introduced. |

3.29.3 interface authentication chap

Description Enable [CHAP](#) authentication support.
Command with **no** prefix disables [CHAP](#).

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Secure

Synopsis

```
(config-if)> authentication chap
```

```
(config-if)> no authentication chap
```

Example

```
(config-if)> authentication chap
Network::Interface::Supplicant: "PPTP0": added authentication: ►
CHAP.
```

```
(config-if)> no authentication chap
Network::Interface::Supplicant: "PPTP0": removed authentication: ►
CHAP.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface authentication chap command has been introduced. |

3.29.4 interface authentication eap-md5

Description Enable EAP-MD5 authentication support.
Command with **no** prefix disables EAP-MD5.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> authentication eap-md5
(config-if)> no authentication eap-md5
```

Example

```
(config-if)> authentication eap-md5
Network::Interface::Ethernet: "GigabitEthernet1": configured ►
authentication: EAP-MD5.
```

```
(config-if)> no authentication eap-md5
Network::Interface::Supplicant: "GigabitEthernet1": removed ►
authentication: EAP-MD5.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface authentication eap-md5 command has been introduced. |

3.29.5 interface authentication eap-mschapv2

Description Enable EAP-MSCHAPv2 authentication support.
Command with **no** prefix disables EAP-MSCHAPv2, MS-CHAPv2.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure**Synopsis**

```
(config-if)> authentication eap-mschapv2
```

```
(config-if)> no authentication eap-mschapv2
```

Example

```
(config-if)> authentication eap-mschapv2
Network::Interface::Supplicant: "IKE0": authentication is ►
unchanged.
```

```
(config-if)> no authentication eap-mschapv2
Network::Interface::Supplicant: "IKE0": removed authentication: ►
EAP-MSCHAPv2, MS-CHAPv2.
```

History

| Version | Description |
|---------|---|
| 3.05 | The interface authentication eap-mschapv2 command has been introduced. |

3.29.6 interface authentication eap-ttls

Description

Enable EAP-TTLS authentication support.

Command with **no** prefix disables EAP-TTLS.**Prefix no**

Yes

Change settings

Yes

Multiple input

No

Interface type

Secure

Synopsis

```
(config-if)> authentication eap-ttls
```

```
(config-if)> no authentication eap-ttls
```

Example

```
(config-if)> authentication eap-ttls
Network::Interface::Ethernet: "GigabitEthernet1": configured ►
authentication: EAP-TTLS.
```

```
(config-if)> no authentication eap-ttls
Network::Interface::Supplicant: "GigabitEthernet1": removed ►
authentication: EAP-TTLS.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface authentication eap-ttls command has been introduced. |

3.29.7 interface authentication identity

Description Specify user name for device authentication on the remote system. Equally often used on PPTP, PPPoE, L2TP and Proxy connections, as well as for UsbQmi interfaces.

Command with **no** prefix deletes the previously specified user name.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> authentication identity <identity>
(config-if)> no authentication identity
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------------|
| identity | <i>String</i> | User name for authentication. |

Example

```
(config-if)> authentication identity mylogin
Network::Interface::Supplicant: "PPTP0": identity saved.
```

```
(config-if)> no authentication identity
Network::Interface::Supplicant: "PPTP0": identity cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface authentication identity command has been introduced. |

3.29.8 interface authentication mschap

Description Enable MS-CHAP authentication support.

Command with **no** prefix disables MS-CHAP.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> authentication mschap
```

```
(config-if)> no authentication mschap
```

Example

```
(config-if)> authentication mschap
Network::Interface::Supplicant: "PPTP0": added authentication: ►
MS-CHAP.
```

```
(config-if)> no authentication mschap
Network::Interface::Supplicant: "PPTP0": removed authentication: ►
MS-CHAP.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface authentication mschap command has been introduced. |

3.29.9 interface authentication mschap-v2

Description

Enable MS-CHAPv2 authentication support.

Command with **no** prefix disables MS-CHAPv2.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Secure

Synopsis

```
(config-if)> authentication mschap-v2
```

```
(config-if)> no authentication mschap-v2
```

Example

```
(config-if)> authentication mschap-v2
Network::Interface::Supplicant: "PPTP0": authentication is ►
unchanged.
```

```
(config-if)> no authentication mschap-v2
Network::Interface::Supplicant: "PPTP0": removed authentication: ►
MS-CHAPv2.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface authentication mschap-v2 command has been introduced. |

3.29.10 interface authentication pap

Description

Enable *PAP* authentication support.

Command with **no** prefix disables [PAP](#).

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> authentication pap
(config-if)> no authentication pap
```

Example

```
(config-if)> authentication pap
Network::Interface::Supplicant: "PPTP0": added authentication: ►
PAP.

(config-if)> no authentication pap
Network::Interface::Supplicant: "PPTP0": removed authentication: ►
PAP.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface authentication pap command has been introduced. |

3.29.11 interface authentication password

Description Specify password for device authentication on the remote system. Equally often used on PPTP, PPPoE, L2TP and Proxy connections.

Command with **no** prefix deletes the password.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> authentication password <password>
(config-if)> no authentication password
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------------|
| password | <i>String</i> | Password for authentication. |

Example

```
(config-if)> authentication password Aihoi2cha1
Network::Interface::Supplicant: "PPTP0": password saved.
```

```
(config-if)> no authentication password
Network::Interface::Supplicant: "PPTP0": password cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface authentication password command has been introduced. |

3.29.12 interface authentication peap

Description Enable *EAP-PEAP* authentication support.

Command with **no** prefix disables *EAP-PEAP*.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis | (config-if)> **authentication peap**

| (config-if)> **no authentication peap**

Example (config-if)> **authentication peap**
 Network::Interface::Ethernet: "WifiMaster1/AccessPoint0": ►
 configured authentication: PEAP.

```
(config-if)> no authentication peap
Network::Interface::Supplicant: "WifiMaster1/AccessPoint0": ►
removed authentication: PEAP.
```

History

| Version | Description |
|---------|---|
| 2.03 | The interface authentication peap command has been introduced. |

3.29.13 interface authentication shared

Description Enable authentication with a *shared key*. This mode is used only in conjunction with *WEP* encryption. *Shared keys* are specified by **interface encryption key** command.

Command with **no** prefix turns authentication to open mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> authentication shared
(config-if)> no authentication shared
```

Example

```
(config-if)> authentication shared
Network::Interface::Rtx::AccessPoint: "WifiMaster1/AccessPoint0": ►
shared authentication mode enabled.
```

```
(config-if)> no authentication shared
Network::Interface::Rtx::AccessPoint: "WifiMaster1/AccessPoint0": ►
shared authentication mode disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface authentication shared command has been introduced. |

3.29.14 interface authentication wpa-psk

Description Specify the pre-agreed key for authentication via WPA-PSK protocol. It is possible to specify the key as a 256-bit hexadecimal number or as a string of ASCII-characters. In the second case, the string is used as a code phrase to generate the key (passphrase).

Command with **no** prefix removes setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> authentication wpa-psk <psk>
(config-if)> no authentication wpa-psk
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| psk | <i>String</i> | Pre-agreed key in the form of a 256-bit hexadecimal number, which consists of 64 hexadecimal digits, or in the form of ASCII string of 8 to 63 characters length. |

Example

```
(config-if)> authentication wpa-psk Eethaich9z
Network::Interface::Wifi: "WifiMaster1/AccessPoint0": WPA PSK set.
```

```
(config-if)> no authentication wpa-psk
Network::Interface::Wifi: "WifiMaster1/AccessPoint0": WPA PSK ►
removed.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface authentication wpa-psk command has been introduced. |

3.29.15 interface auto-ssid

Description Generate a custom wireless network name (SSID) based on the router's MAC address.

Prefix no No

Change settings Yes

Multiple input No

Interface type WifiMaster

Synopsis

```
(config-if)> auto-ssid <template> <prefix>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| template | mac4 | Template name — the last 4 or 6 digits of the MAC address to be added to the prefix. |
| | mac6 | |
| prefix | <i>String</i> | Custom string at the user's choice. |

Example

```
(config-if)> auto-ssid mac4 12313213
Network::Interface::AccessPoint: "WifiMaster0/AccessPoint0": ►
generated SSID "12313213207E".
```

```
(config-if)> auto-ssid mac6 12313213
Network::Interface::AccessPoint: "WifiMaster0/AccessPoint0": ►
generated SSID "1231321369207E".
```

History

| Version | Description |
|---------|---|
| 3.08 | The interface auto-ssid command has been introduced. |

3.29.16 interface backhaul

Description Enable support of [VLAN](#) for wireless connection between routers Keenetic in the trunk mode. By default, setting is disabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFiMaster

Synopsis

```
(config-if)> backhaul
(config-if)> no backhaul
```

Example

```
(config-if)> backhaul
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint1": ►
backhaul mode enabled.

(config-if)> no backhaul
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint1": ►
backhaul mode disabled.
```

History

| Version | Description |
|---------|--|
| 3.02 | The interface backhaul command has been introduced. |

3.29.17 interface band-steering

Description Enable *Band Steering* for AP 5 GHz. By default, the setting is enabled.

For correct *Band Steering* operation it is necessary to fulfill the following conditions:

- access points 2,4 GHz and 5 GHz are enabled both
- they have the same SSID's
- they have the same security settings (encryption type, key value, etc.)

Command with **no** prefix disables the *Band Steering*.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFiMaster

Synopsis

```
(config-if)> band-steering
(config-if)> no band-steering
```

Example

```
(config-if)> band-steering
Network::Interface::Rtx::WifiMaster: "WifiMaster1": band steering ►
enabled.
```

```
(config-if)> no band-steering
Network::Interface::Rtx::WifiMaster: "WifiMaster1": band steering ►
disabled.
```

History

| Version | Description |
|---------|---|
| 2.09 | The interface band-steering command has been introduced. |

3.29.18 interface band-steering preference

Description

Set the band to give a preference in *Band Steering* technology. By default, the value is not defined.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> band-steering preference <band>
```

```
(config-if)> no band-steering preference
```

Arguments

| Argument | Value | Description |
|----------|-------|---------------|
| band | 2 | 2,4 GHz band. |
| | 5 | 5 GHz band. |

Example

```
(config-if)> band-steering preference 5
Network::Interface::Rtx::WifiMaster: "WifiMaster1": band steering ►
preference is 5 GHz.
```

```
(config-if)> no band-steering preference
Network::Interface::Rtx::WifiMaster: "WifiMaster1": band steering ►
preference disabled.
```

History

| Version | Description |
|---------|--|
| 2.09 | The interface band-steering preference command has been introduced. |

3.29.19 interface ccp

Description Enable [CCP](#) support during establishing connection.

Command with **no** prefix disables [CCP](#).

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ccp
(config-if)> no ccp
```

Example

```
(config-if)> ccp
CCP enabled.
```

```
(config-if)> no ccp
CCP disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface ccp command has been introduced. |

3.29.20 interface channel

Description Set the radio channel (broadcasting frequency band) for wireless interfaces. Wi-Fi interfaces take integers from 1 to 14 (frequency range from 2.412 GHz to 2.484 GHz) and from 36 to 165 (frequency range from 5.180 GHz to 5.825 GHz) as channel numbers. By default, auto value is used.

Command with **no** prefix resets to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Radio

Synopsis

```
(config-if)> channel <channel>
(config-if)> no channel
```

Arguments

| Argument | Value | Description |
|----------|--------|--------------------------|
| channel | number | Number of radio channel. |

| Argument | Value | Description |
|----------|-------|---|
| | auto | Radio channel number is detected automatically. |

Example

```
(config-if)> channel 8
Network::Interface::Rtx::WifiMaster: "WifiMaster0": channel set ►
to 8.
```

```
(config-if)> channel 36
Network::Interface::Rtx::WifiMaster: "WifiMaster1": channel set ►
to 36.
```

```
(config-if)> no channel
Network::Interface::Rtx::WifiMaster: "WifiMaster0": auto channel ►
mode set.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface channel command has been introduced. |

3.29.21 interface channel auto-rescan

Description Set a schedule for radio channel automatic scanning. By default, the setting is disabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Radio

Synopsis | (config-if)> **channel auto-rescan** [<hh>:<mm>] **interval** <interval>

| (config-if)> **no channel auto-rescan**

Arguments

| Argument | Value | Description |
|----------|-------|---------------------------|
| interval | 1 | Rescan interval in hours. |
| | 6 | |
| | 12 | |
| | 24 | |

Example

```
(config-if)> channel auto-rescan interval 1
Network::Interface::Rtx::WifiMaster: "WifiMaster0": scheduled ►
auto rescan, interval 1 hour.
```



```
(config-if)> no channel auto-rescan
Network::Interface::Rtx::WifiMaster: "WifiMaster0": auto rescan ►
disabled.
```

History

| Version | Description |
|---------|---|
| 2.07 | The interface channel auto-rescan command has been introduced. |

3.29.22 interface channel width

Description Set the bandwidth for a specified channel. By default, 40-below value is used.

Command with **no** prefix resets to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Radio

Synopsis

```
(config-if)> channel width <width>
(config-if)> no channel width
```

Arguments

| Argument | Value | Description |
|----------|----------|---|
| width | 20 | Set bandwidth equal to 20 MHz. |
| | 40-above | Expand the bandwidth up to 40 MHz using next channel. |
| | 40-below | Expand the bandwidth up to 40 MHz using previous channel. |

Example

```
(config-if)> channel width 20
Network::Interface::Rtx::WifiMaster: "WifiMaster0": channel ►
bandwidth setting applied.
```

```
(config-if)> no channel width
Network::Interface::Rtx::WifiMaster: "WifiMaster0": channel ►
bandwidth settings reset to default.
```

History

| Version | Description |
|---------|---|
| 2.04 | The interface channel width command has been introduced. |

3.29.23 interface chilli coaport

Description Set *UDP* port to which disconnect requests from the *RADIUS* client are sent. Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli coaport <coaport>
(config-if)> no chilli coaport
```

| Argument | Value | Description |
|----------|----------------|-----------------------------|
| coaport | <i>Integer</i> | The <i>CoA</i> port number. |

Example

```
(config-if)> chilli coaport 3940
Chilli::Interface: "Chilli0": coaport set to 3940.

(config-if)> no chilli coaport
Chilli::Interface: "Chilli0": coaport reset to default.
```

| Version | Description |
|---------|--|
| 2.10 | The interface chilli coaport command has been introduced. |

3.29.24 interface chilli dhcpif

Description Assign Chilli interface to the system network interface. Command with **no** prefix cancels the association.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli dhcpif <dhcpif>
(config-if)> no chilli dhcpif
```

| Argument | Value | Description |
|----------|------------------|----------------------------------|
| dhcpif | <i>Interface</i> | Full interface name or an alias. |

Example

```
(config-if)> chilli dhcpif Bridgel
Chilli::Interface: "Chilli0": bound to Bridgel.
```

```
(config-if)> no chilli dhcpif
Chilli::Interface: "Chilli0": unbound.
```

History

| Version | Description |
|---------|---|
| 2.10 | The interface chilli dhcpif command has been introduced. |

3.29.25 interface chilli dns

Description Set IP address of the DNS server.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli dns <dns1> [ <dns2> ]
```

```
(config-if)> no chilli dns
```

Arguments

| Argument | Value | Description |
|----------|-------------------|----------------------------------|
| dns1 | <i>IP address</i> | Address of primary DNS server. |
| dns2 | <i>IP address</i> | Address of secondary DNS server. |

Example

```
(config-if)> chilli dns 8.8.8.8 1.1.1.1
Chilli::Interface: "Chilli0": DNS servers set to 8.8.8.8, 1.1.1.1.
```

```
(config-if)> no chilli dns
Chilli::Interface: "Chilli0": DNS servers reset to default.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface chilli dns command has been introduced. |

3.29.26 interface chilli lease

Description Configure the lease time of the connected client IP addresses. By default, the value 3600 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli lease <lease>
(config-if)> no chilli lease
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| lease | <i>Integer</i> | Lease time in seconds. The maximum value is 259200. |

Example

```
(config-if)> chilli lease 1000
Chilli::Interface: "Chilli0": lease has been set 1000 seconds.
```

```
(config-if)> no chilli lease
Chilli::Interface: "Chilli0": lease has been reset to default ►
(3600 seconds).
```

History

| Version | Description |
|---------|--|
| 2.11 | The interface chilli lease command has been introduced. |

3.29.27 interface chilli login

Description Configure authorization to connect to the [RADIUS](#) server.

Prefix no No

Change settings No

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli login <mac> [ username <username> password <password> ]
```

| Argument | Value | Description |
|----------|--------------------|----------------------------------|
| mac | <i>MAC address</i> | MAC address for authentication. |
| username | <i>String</i> | Username for authentication. |
| password | <i>String</i> | The password for authentication. |

Example

```
(config-if)> interface Chilli0 chilli login 00:01:02:03:04:05
Chilli::Interface: "Chilli0": sent login request for ►
00:01:02:03:04:05
```

```
(config-if)> interface Chilli0 chilli login 00:01:02:03:04:05 ►
username test password test
Chilli::Interface: "Chilli0": sent login request for ►
00:01:02:03:04:05
```

| Version | Description |
|---------|--|
| 4.00 | The interface chilli login command has been introduced. |

3.29.28 interface chilli logout

Description Force the MAC address of the specified client to be disabled.

Prefix no No

Change settings No

Multiple input No

Interface type Chilli

Synopsis | (config-if)> **chilli logout** (<mac> | all)

| Argument | Value | Description |
|----------|--------------------|---------------------------------------|
| mac | <i>MAC address</i> | MAC address of the registered client. |
| all | Keyword | Disable all MAC addresses. |

Example

```
(config-if)> chilli logout 64:a2:22:51:b4:11
```

```
(config-if)> chilli logout all
Chilli::Interface: "Chilli0": service restarted.
```

| Version | Description |
|---------|---|
| 2.10 | The interface chilli logout command has been introduced. |

3.29.29 interface chilli macauth

Description Enable user authentication option based on MAC address detection only.
Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli macauth
(config-if)> no chilli macauth
```

Example

```
(config-if)> chilli macauth
Chilli::Interface: "Chilli0": macauth set to "".
```

```
(config-if)> no chilli macauth
Chilli::Interface: "Chilli0": macauth cleared.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface chilli macauth command has been introduced. |

3.29.30 interface chilli macpasswd

Description Set the password for MAC address authentication.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli macpasswd <macpasswd>
(config-if)> no chilli macpasswd
```

Arguments

| Argument | Value | Description |
|-----------|---------------|--------------------|
| macpasswd | <i>String</i> | The user password. |

Example

```
(config-if)> chilli macpasswd 1234567890
Chilli::Interface: "Chilli0": macpasswd set to "1234567890".

(config-if)> no chilli macpasswd
Chilli::Interface: "Chilli0": macpasswd cleared.
```

History

| Version | Description |
|---------|--|
| 2.11 | The interface chilli macpasswd command has been introduced. |

3.29.31 interface chilli nasip

Description Set *RADIUS* option NAS IP Address. Allows you to configure and use an arbitrary IP address.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli nasip (<address> | interface <wan> | auto)
(config-if)> no chilli nasip
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | Specific IP address of the server. |
| wan | <i>Interface</i> | IP address from the specified WAN interface. |
| auto | <i>Keyword</i> | IP address from the current WAN interface. |

Example

```
(config-if)> chilli nasip 95.213.215.187
Chilli::Interface: "Chilli0": NAS IP address set to ►
"95.213.215.187".

(config-if)> chilli nasip interface ISP
Chilli::Interface: "Chilli0": NAS IP interface set to ►
"GigabitEthernet1".

(config-if)> chilli nasip auto
Chilli::Interface: "Chilli0": NAS IP address set to auto.

(config-if)> no chilli nasip
Chilli::Interface: "Chilli0": NAS IP address cleared.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface chilli nasip command has been introduced. |

3.29.32 interface chilli nasmac

Description

Set MAC address for *RADIUS* Called-Station-ID attribute. By default, MAC address of the guest network is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)> chilli nasmac <mac>
```

```
(config-if)> no chilli nasmac
```

Arguments

| Argument | Value | Description |
|----------|--------------------|---|
| mac | <i>MAC address</i> | New MAC address for RADIUS Called-Station-ID. |

Example

```
(config-if)> chilli nasmac 50:ff:20:00:1e:86  
Chilli::Interface: "Chilli0": NAS MAC address set to ►  
"50:ff:20:00:1e:86".
```

```
(config-if)> no chilli nasmac  
Chilli::Interface: "Chilli0": NAS MAC address cleared.
```

History

| Version | Description |
|---------|---|
| 2.11 | The interface chilli nasmac command has been introduced. |

3.29.33 interface chilli profile

Description

Assign Chilli profile to the Chilli interface.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

| Interface type | Chilli | | | | | | | |
|-----------------------|---|------------------------------------|----------|-------------|-------------|--|---------------|------------------------------------|
| Synopsis | <pre>(config-if)> chilli profile <profile></pre> <pre>(config-if)> no chilli profile</pre> | | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>profile</td> <td><i>String</i></td> <td><i>RADIUS</i> server profile name.</td> </tr> </tbody> </table> | | Argument | Value | Description | profile | <i>String</i> | <i>RADIUS</i> server profile name. |
| Argument | Value | Description | | | | | | |
| profile | <i>String</i> | <i>RADIUS</i> server profile name. | | | | | | |
| Example | <pre>(config-if)> chilli profile Wi-Fi_SYSTEM</pre> <pre>Chilli::Interface: "Chilli0": assigned profile: Wi-Fi.</pre> <pre>(config-if)> no chilli profile</pre> <pre>Chilli::Interface: "Chilli0": profile cleared.</pre> | | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.10</td> <td>The interface chilli profile command has been introduced.</td> </tr> </tbody> </table> | | Version | Description | 2.10 | The interface chilli profile command has been introduced. | | |
| Version | Description | | | | | | | |
| 2.10 | The interface chilli profile command has been introduced. | | | | | | | |

3.29.34 interface chilli radius

| Description | <p>Add the <i>RADIUS</i> server addresses.</p> <p>Command with no prefix removes the servers.</p> | | | | | | | | | | |
|------------------------|---|---|----------|-------|-------------|---------|---------------|--|---------|---------------|---|
| Prefix no | Yes | | | | | | | | | | |
| Change settings | Yes | | | | | | | | | | |
| Multiple input | No | | | | | | | | | | |
| Interface type | Chilli | | | | | | | | | | |
| Synopsis | <pre>(config-if)> chilli radius <server1> [<server2>]</pre> <pre>(config-if)> no chilli radius</pre> | | | | | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>server1</td> <td><i>String</i></td> <td>Address of first <i>RADIUS</i> server.</td> </tr> <tr> <td>server2</td> <td><i>String</i></td> <td>Address of second <i>RADIUS</i> server.</td> </tr> </tbody> </table> | | Argument | Value | Description | server1 | <i>String</i> | Address of first <i>RADIUS</i> server. | server2 | <i>String</i> | Address of second <i>RADIUS</i> server. |
| Argument | Value | Description | | | | | | | | | |
| server1 | <i>String</i> | Address of first <i>RADIUS</i> server. | | | | | | | | | |
| server2 | <i>String</i> | Address of second <i>RADIUS</i> server. | | | | | | | | | |
| Example | <pre>(config-if)> chilli radius radius.example.net radius2.example.net</pre> <pre>Chilli::Interface: "Chilli0": RADIUS servers set to ► radius.example.net, radius2.example.net.</pre> <pre>(config-if)> no chilli radius</pre> <pre>Chilli::Interface: "Chilli0": RADIUS servers cleared.</pre> | | | | | | | | | | |

History

| Version | Description |
|---------|---|
| 2.10 | The interface chilli radius command has been introduced. |

3.29.35 interface chilli radiusacctport

Description Set accounting UDP-port of *RADIUS* server. By default, value 1813 is used.
Command with **no** prefix resets port to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli radiusacctport <radiusacctport>
```

```
(config-if)> no chilli radiusacctport
```

Arguments

| Argument | Value | Description |
|----------------|---------------|------------------|
| radiusacctport | <i>String</i> | The port number. |

Example

```
(config-if)> chilli radiusacctport 1819  
Chilli::Interface: "Chilli0": radiusacctport set to 1819.
```

```
(config-if)> no chilli radiusacctport  
Chilli::Interface: "Chilli0": radiusacctport reset to default.
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface chilli radiusacctport command has been introduced. |

3.29.36 interface chilli radiusauthport

Description Set authentication UDP-port of *RADIUS* server. By default, value 1812 is used.
Command with **no** prefix resets port to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli radiusauthport <radiusauthport>
```

```
(config-if)> no chilli radiusauthport
```

Arguments

| Argument | Value | Description |
|----------------|---------------|------------------|
| radiusauthport | <i>String</i> | The port number. |

Example

```
(config-if)> chilli radiusauthport 1820  
Chilli::Interface: "Chilli0": radiusauthport set to 1820.
```

```
(config-if)> no chilli radiusauthport  
Chilli::Interface: "Chilli0": radiusauthport reset to default.
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface chilli radiusauthport command has been introduced. |

3.29.37 interface chilli radiuslocationid

Description

Set location identifier of *RADIUS* server. It should be in the format isocc=, cc=, ac=, network=.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)> chilli radiuslocationid <radiuslocationid>
```

```
(config-if)> no chilli radiuslocationid
```

Arguments

| Argument | Value | Description |
|------------------|---------------|----------------------------|
| radiuslocationid | <i>String</i> | Location identifier value. |

Example

```
(config-if)> chilli radiuslocationid ►  
isocc=,cc=,ac=,network=WiFiSYSTEM,  
Chilli::Interface: "Chilli0": radiuslocationid set to ►  
"isocc=,cc=,ac=,network=WiFiSYSTEM,".
```

```
(config-if)> no chilli radiuslocationid  
Chilli::Interface: "Chilli0": radiuslocationid cleared.
```

History

| Version | Description |
|---------|---|
| 2.10 | The interface chilli radiuslocationid command has been introduced. |

3.29.38 interface chilli radiuslocationname**Description**

Set location name of *RADIUS* server.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)> chilli radiuslocationname <radiuslocationname>
```

```
(config-if)> no chilli radiuslocationname
```

Arguments

| Argument | Value | Description |
|--------------------|---------------|----------------|
| radiuslocationname | <i>String</i> | Location name. |

Example

```
(config-if)> chilli radiuslocationname MyHotSpot  
Chilli::Interface: "Chilli0": radiuslocationname set to ►  
"MyHotSpot".
```

```
(config-if)> no chilli radiuslocationname  
Chilli::Interface: "Chilli0": radiuslocationname cleared.
```

History

| Version | Description |
|---------|---|
| 2.10 | The interface chilli radiuslocationname command has been introduced. |

3.29.39 interface chilli radiusnasid**Description**

Set Network Access Server identifier.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

| Interface type | Chilli | | | | | | | |
|-----------------------|---|-----------------|----------|-------------|-------------|--|---------------|-----------------|
| Synopsis | <pre>(config-if)> chilli radiusnasid <radiusnasid></pre> <pre>(config-if)> no chilli radiusnasid</pre> | | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>radiusnasid</td> <td><i>String</i></td> <td>NAS identifier.</td> </tr> </tbody> </table> | | Argument | Value | Description | radiusnasid | <i>String</i> | NAS identifier. |
| Argument | Value | Description | | | | | | |
| radiusnasid | <i>String</i> | NAS identifier. | | | | | | |
| Example | <pre>(config-if)> chilli radiusnasid keeneticru_12</pre> <pre>Chilli::Interface: "Chilli0": radiusnasid set to "keeneticru_12".</pre> <pre>(config-if)> no chilli radiusnasid</pre> <pre>Chilli::Interface: "Chilli0": radiusnasid cleared.</pre> | | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.10</td> <td>The interface chilli radiusnasid command has been introduced.</td> </tr> </tbody> </table> | | Version | Description | 2.10 | The interface chilli radiusnasid command has been introduced. | | |
| Version | Description | | | | | | | |
| 2.10 | The interface chilli radiusnasid command has been introduced. | | | | | | | |

3.29.40 interface chilli radiussecret

| Description | Set shared secret for both RADIUS servers. Command with no prefix removes the setting. | | | | | | | |
|------------------------|---|-----------------|----------|-------|-------------|--------------|---------------|-----------------|
| Prefix no | Yes | | | | | | | |
| Change settings | Yes | | | | | | | |
| Multiple input | No | | | | | | | |
| Interface type | Chilli | | | | | | | |
| Synopsis | <pre>(config-if)> chilli radiussecret <radiussecret></pre> <pre>(config-if)> no chilli radiussecret</pre> | | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>radiussecret</td> <td><i>String</i></td> <td>A secret value.</td> </tr> </tbody> </table> | | Argument | Value | Description | radiussecret | <i>String</i> | A secret value. |
| Argument | Value | Description | | | | | | |
| radiussecret | <i>String</i> | A secret value. | | | | | | |
| Example | <pre>(config-if)> chilli radiussecret 12df34fd</pre> <pre>Chilli::Interface: "Chilli0": radiussecret set to "12df34fd".</pre> <pre>(config-if)> no chilli radiussecret</pre> <pre>Chilli::Interface: "Chilli0": radiussecret cleared.</pre> | | | | | | | |

History

| Version | Description |
|---------|---|
| 2.10 | The interface chilli radiussecret command has been introduced. |

3.29.41 interface chilli uamallowed

Description Specify the resource to which the client has access without first authenticating.

Command with **no** prefix removes the resource from the list. If you use no argument, the entire list of resources will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Chilli

Synopsis `(config-if)> chilli uamallowed <uamallowed>`

`(config-if)> no chilli uamallowed [<uamallowed>]`

Arguments

| Argument | Value | Description |
|------------|---------------|--------------------------------|
| uamallowed | <i>String</i> | IP-address, URL or subnetwork. |

Example

```
(config-if)> chilli uamallowed 188.166.114.0/24
Chilli::Interface: "Chilli0": "188.166.114.0/24" added to walled ►
garden.
```

```
(config-if)> chilli uamallowed www.example.link
Chilli::Interface: "Chilli0": "www.example.link" added to walled ►
garden.
```

```
(config-if)> no chilli uamallowed 188.166.114.0/24
Chilli::Interface: "Chilli0": "188.166.114.0/24" removed from ►
walled garden.
```

```
(config-if)> no chilli uamallowed www.example.link
Chilli::Interface: "Chilli0": "www.example.link" removed from ►
walled garden.
```

```
(config-if)> no chilli uamallowed
Chilli::Interface: "Chilli0": walled garden cleared.
```

History

| Version | Description |
|---------|---|
| 2.10 | The interface chilli uamallowed command has been introduced. |

3.29.42 interface chilli uamdomain

| | |
|------------------------|---|
| Description | Specify the domain name to which the client has access without first authenticating. Command with no prefix removes the domain name from the list. If you use no argument, the entire list of domain names will be cleared. |
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | Yes |
| Interface type | Chilli |
| Synopsis | <pre>(config-if)> chilli uamdomain <uamdomain></pre> <pre>(config-if)> no chilli uamdomain [<uamdomain>]</pre> |

| Arguments | Argument | Value | Description |
|------------------|-----------|---------------|-----------------------------|
| | uamdomain | <i>String</i> | Domain name of remote host. |

| | |
|----------------|---|
| Example | <pre>(config-if)> chilli uamdomain example.net</pre> <p>Chilli::Interface: "Chilli0": "example.net" added to walled garden.</p> |
| | <pre>(config-if)> no chilli uamdomain example.net</pre> <p>Chilli::Interface: "Chilli0": "example.net" removed from walled garden.</p> |
| | <pre>(config-if)> no chilli uamdomain</pre> <p>Chilli::Interface: "Chilli0": walled garden cleared.</p> |

| History | Version | Description |
|----------------|---------|--|
| | 2.10 | The interface chilli uamdomain command has been introduced. |

3.29.43 interface chilli uamhomepage

| | |
|------------------------|---|
| Description | Set URL of homepage to redirect unauthenticated users to. Command with no prefix removes the setting. |
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |

Interface type Chilli**Synopsis**

```
(config-if)> chilli uamhomepage <uamhomepage>
```

```
(config-if)> no chilli uamhomepage
```

Arguments

| Argument | Value | Description |
|-------------|---------------|-------------|
| uamhomepage | <i>String</i> | Custom URL. |

Example

```
(config-if)> chilli uamhomepage http://192.168.2.1/welcome.html
Chilli::Interface: "Chilli0": uamhomepage set to ►
"http://192.168.2.1/welcome.html".
```

```
(config-if)> no chilli uamhomepage
Chilli::Interface: "Chilli0": uamhomepage cleared.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface chilli uamhomepage command has been introduced. |

3.29.44 interface chilli uamport

Description

Set *TCP* port to bind to for authenticating clients. By default, value 3990 is used.

Command with **no** prefix resets port to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)> chilli uamport <uamport>
```

```
(config-if)> no chilli uamport
```

Arguments

| Argument | Value | Description |
|----------|----------------|------------------|
| uamport | <i>Integer</i> | The port number. |

Example

```
(config-if)> chilli uamport 3922
Chilli::Interface: "Chilli0": uamport set to 3922.
```

```
(config-if)> no chilli uamport
Chilli::Interface: "Chilli0": uamport reset to default.
```


| History | Version | Description |
|---------|---------|--|
| | 2.10 | The interface chilli uamport command has been introduced. |

3.29.45 interface chilli uamsecret

Description Set shared secret between *UAM* server and Chilli. The *UAM* secret is used to hash the challenge before password computation.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli uamsecret <uamsecret>
```

```
(config-if)> no chilli uamsecret
```

| Arguments | Argument | Value | Description |
|-----------|-----------|---------------|-----------------|
| | uamsecret | <i>String</i> | A secret value. |

Example

```
(config-if)> chilli uamsecret 12df34fd
```

```
Chilli::Interface: "Chilli0": uamsecret set to "12df34fd".
```

```
(config-if)> no chilli uamsecret
```

```
Chilli::Interface: "Chilli0": uamsecret set to "".
```

| History | Version | Description |
|---------|---------|--|
| | 2.10 | The interface chilli uamsecret command has been introduced. |

3.29.46 interface chilli uamserver

Description Set URL of web server to use for authenticating clients.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli**Synopsis**

```
(config-if)> chilli uamserver <uamserver>
```

```
(config-if)> no chilli uamserver
```

Arguments

| Argument | Value | Description |
|-----------|--------|---------------------------|
| uamserver | String | Custom URL of web server. |

Example

```
(config-if)> chilli uamserver ►
https://auth.example.net/hotspotlogin
Chilli::Interface: "Chilli0": uamserver set to ►
"https://auth.example.net/hotspotlogin".
```

```
(config-if)> no chilli uamserver
Chilli::Interface: "Chilli0": uamserver cleared.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface chilli uamserver command has been introduced. |

3.29.47 interface compatibility

Description

Set the standard for wireless communications, with which a given wireless adapter (the interface) must be compatible. For Wi-Fi interfaces, the compatibility is set by string of Latin letters A, B, G, N, that denote extensions to the standard IEEE 802.11. For example, the presence 'N' in the compatibility line will imply that the given adapter will be able to deal with the 802.11n-compatible devices via radio channel. The set of admissible compatibility lines is defined by the hardware capabilities of a particular adapter and provisions of the relevant additions to the IEEE 802.11 standard.

By default, "BGN" value is used for 2.4 GHz, "AN" — for 5 GHz.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

Radio

Synopsis

```
(config-if)> compatibility <annex>
```

Arguments

| Argument | Value | Description |
|----------|---------|--------------|
| annex | B, G, N | For 2,4 GHz. |
| | A, N | For 5 GHz. |

| Argument | Value | Description |
|----------|---------|---------------------------|
| | A, N+AC | Additional IEEE standard. |

Example

```
(config-if)> compatibility N
Network::Interface::Rtx::WifiMaster: "WifiMaster0": PHY mode set.
```

```
(config-if)> compatibility N+AC
Network::Interface::Rtx::WifiMaster: "WifiMaster1": PHY mode set.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface compatibility command has been introduced. |
| 2.06 | New standard AC was added. |

3.29.48 interface connect

Description

Start the process of connecting to a remote node.

Command with **no** prefix terminates the connection.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

PPP, IP

Synopsis

```
(config-if)> connect [ via <via> ]
```

```
(config-if)> no connect
```

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| via | <i>Interface</i> | Interface through which remote node is accessed. For PPPoE this option is mandatory. |

Example

```
(config-if)> connect via ISP
```

```
(config-if)> no connect
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface connect command has been introduced. |

3.29.49 interface country-code

Description Assign to the interface a literal country code, which influences the set of radio channels. By default, RU value is used.

Prefix no No

Change settings Yes

Multiple input No

Interface type Radio

Synopsis `(config-if)> country-code <code>`

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------|
| code | <i>String</i> | The country code. |

Example

```
(config-if)> country-code RU
Network::Interface::Rtx::WifiMaster: "WifiMaster0": country code ►
set.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface country-code command has been introduced. |

3.29.50 interface debug

Description Enable debug mode of *PPP* connection. Detailed info about connection progress is saved to the system log. By default, setting is disabled.

Command with **no** prefix disables the debug mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis `(config-if)> debug`

`(config-if)> no debug`

Example

```
(config-if)> debug
Network::Interface::Base: Debug enabled.
```

```
(config-if)> no debug
Network::Interface::Base: Debug disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface debug command has been introduced. |

3.29.51 interface description

Description Assign arbitrary description to the specified network interface.

Command with **no** prefix deletes the description.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> description <description>
```

```
(config-if)> no description
```

Arguments

| Argument | Value | Description |
|-------------|---------------|---|
| description | <i>String</i> | Arbitrary description of the interface. |

Example

```
(config-if)> description MYHOME
Network::Interface::Base: "Bridge0": description saved.
```

```
(config-if)> no description
Network::Interface::Base: "Bridge0": description saved.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface description command has been introduced. |

3.29.52 interface down

Description Disable the network interface and persist the state “down” to the settings.

Command with **no** prefix enables the network interface and deletes “down” from settings.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> down
```

```
(config-if)> no down
```

Example

```
(config-if)> down  
Network::Interface::Base: "GigabitEthernet0/2": interface is down.
```

```
(config-if)> up  
Network::Interface::Base: "GigabitEthernet0/2": interface is up.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface down command has been introduced. |

3.29.53 interface duplex

Description

Set the duplex mode of the Ethernet port. By default, auto value is set.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-if)> duplex (full | half | auto)
```

```
(config-if)> no duplex
```

Arguments

| Argument | Value | Description |
|----------|-------|-----------------------|
| mode | full | Full duplex protocol. |
| | half | Half duplex protocol. |
| | auto | Auto duplex protocol. |

Example

```
(config-if)> duplex full  
Network::Interface::Ethernet: "GigabitEthernet0/1": duplex set ►  
to "full".
```

```
(config-if)> no duplex  
Network::Interface::Ethernet: "GigabitEthernet0/1": duplex reset ►  
to default.
```

History

| Version | Description |
|----------|--|
| 2.06.B.1 | The interface duplex command has been introduced. |

3.29.54 interface dyndns profile

Description Assign the DynDns profile to the interface. Profile must be created and customized with [dyndns profile](#) commands before execution.

Command with **no** prefix unbinds the profile.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> dyndns profile <profile>
```

```
(config-if)> no dyndns profile
```

Arguments

| Argument | Value | Description |
|----------|---------------|-----------------------------|
| profile | <i>String</i> | The name of DynDns profile. |

Example

```
(config-if)> dyndns profile TEST  
DynDns::Profile: Interface set.
```

```
(config-if)> no dyndns profile TEST  
DynDns::Profile: Interface removed.
```

History

| Version | Description |
|---------|--|
| 2.02 | The interface dyndns profile command has been introduced. |

3.29.55 interface dyndns update

Description Update IP address for DynDns manually. By default command works in accordance with the policy of the DynDns service provider, that is not allows to update too often. Using the keyword **force** allows you to update excluding policy of the service provider.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> dyndns update [ force ]
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| force | <i>Keyword</i> | Not take into account the update rate recommended by service provider. |

Example (config-if)> **dyndns update**

History

| Version | Description |
|---------|---|
| 2.00 | The interface dyndns update command has been introduced. |

3.29.56 interface encryption anonymous-dh

Description Enable Anonymous DH for SSTP servers without a certificate.

Command with **no** prefix disables Anonymous DH.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type SSTP

Synopsis (config-if)> **encryption anonymous-dh**

(config-if)> **no encryption anonymous-dh**

Example (config-if)> **encryption anonymous-dh**
Network::Interface::Sstp: "SSTP0": anonymous DH TLS is enabled.

(config-if)> **no encryption anonymous-dh**
Network::Interface::Sstp: "SSTP0": anonymous DH TLS is disabled.

History

| Version | Description |
|---------|---|
| 2.13 | The interface encryption anonymous-dh command has been introduced. |

3.29.57 interface encryption disable

Description Disable encryption on the wireless interface.

Prefix no No

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis (config-if)> **encryption disable**

Example (config-if)> **encryption disable**
 Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
 wireless encryption disabled.

History

| Version | Description |
|---------|--|
| 2.00 | The interface encryption disable command has been introduced. |

3.29.58 interface encryption enable

Description Enable encryption on the wireless interface. By default, [WEP](#) encryption is used.

Command with **no** prefix disables wireless interface encryption.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> encryption enable
```

```
(config-if)> no encryption enable
```

Example (config-if)> **encryption enable**
 Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
 wireless encryption enabled.

```
(config-if)> no encryption enable  

  Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►  

  wireless encryption disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface encryption enable command has been introduced. |

3.29.59 interface encryption key

Description Specify the [WEP](#) encryption keys. Depending on the bit, the key can be standard 64-bit [WEP](#) uses a 40 bit key (also known as WEP-40), or 128-bit [WEP](#) uses a 26 hexadecimal characters (13 characters ASCII). Overall, there can be 1 to 4 encryption keys, with one of them default key must be assigned.

Command with **no** prefix removes key.

Prefix no Yes**Change settings** Yes**Multiple input** Yes**Interface type** WiFi

Synopsis

```
(config-if)> encryption key <id> (<value> [default] | default)
```

```
(config-if)> no encryption key <id>
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| id | <i>Integer</i> | The key number. Overall, up to 4 keys could be specified. |
| value | <i>String</i> | The key value as a hexadecimal number, consisting of 10 or 26 digits. |
| default | <i>Keyword</i> | Indicates that this key will be used by default. |

Example

```
(config-if)> encryption key 1 1231231234  
Network::Interface::Wifi: "WifiMaster0/AccessPoint0": WEP key 1 ►  
set.
```

```
(config-if)> no encryption key 1  
Network::Interface::Wifi: "WifiMaster0/AccessPoint0": WEP key 1 ►  
removed.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface encryption key command has been introduced. |

3.29.60 interface encryption mppe

Description Enable [MPPE](#) encryption support.
Command with **no** prefix disables [MPPE](#) encryption.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** PPTP

Synopsis

```
(config-if)> encryption mppe
```

```
(config-if)> no encryption mppe
```

Example

```
(config-if)> encryption mppe
MPPE enabled.
```

```
(config-if)> no encryption mppe
MPPE disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface encryption mppe command has been introduced. |

3.29.61 interface encryption owe

Description Enable [OWE](#) security algorithms on the wireless interface. By default, the setting is disabled.

Command with **no** prefix disables [OWE](#) support.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WifiMaster

Synopsis

```
(config-if)> encryption owe
```

```
(config-if)> no encryption owe
```

Example

```
(config-if)> encryption owe
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
OWE algorithms enabled.
```

```
(config-if)> no encryption owe
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
OWE algorithms disabled.
```

History

| Version | Description |
|---------|--|
| 3.00 | The interface encryption owe command has been introduced. |

3.29.62 interface encryption tkip hold-down

Description Set the "countermeasure" timer value for [TKIP](#) when the joint use [WPA](#) and [WPA2](#) security algorithms on the wireless interface. By default, the value 60 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** WiFi

Synopsis

```
(config-if)> encryption tkip hold-down <hold-down>
```

```
(config-if)> no encryption tkip hold-down
```

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| hold-down | <i>Integer</i> | Timer value in seconds. Can take values in the range from 0 to 60. If timer is set to 0, the setting is disabled. |

Example

```
(config-if)> encryption tkip hold-down 10
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
hold-down interval is 10 sec.
```

```
(config-if)> no encryption tkip hold-down
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
hold-down interval is reset to default (60 sec.).
```

History

| Version | Description |
|---------|---|
| 3.08 | The interface encryption tkip hold-down command has been introduced. |

3.29.63 interface encryption wpa

Description Enable [WPA](#) security algorithms on the wireless interface. Wireless interface can support the joint use of [WPA](#) and [WPA2](#), but supporting [WEP](#) automatically disables when any of the [WPA](#) is enabled.

Command with **no** prefix disables [WPA](#) support.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** WiFi

Synopsis

```
(config-if)> encryption wpa
```

```
(config-if)> no encryption wpa
```

Example (config-if)> **encryption wpa**
WPA algorithms enabled.

History

| Version | Description |
|---------|--|
| 2.00 | The interface encryption wpa command has been introduced. |

3.29.64 interface encryption wpa2

Description Enable [WPA2](#) (IEEE 802.11i, RSN) security algorithms on the wireless interface. Wireless interface can support the joint use of [WPA](#) and [WPA2](#), but supporting [WEP](#) automatically disables when any of the [WPA](#) is enabled.

Command with **no** prefix disables [WPA2](#) support.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> encryption wpa2
(config-if)> no encryption wpa2
```

Example (config-if)> **encryption wpa2**
WPA2 algorithms enabled.

History

| Version | Description |
|---------|---|
| 2.00 | The interface encryption wpa2 command has been introduced. |

3.29.65 interface encryption wpa3

Description Enable [WPA3](#) security algorithms on the wireless interface. Wireless interface can support the joint use of [WPA2](#) and [WPA3](#). By default, the setting is disabled.

Command with **no** prefix disables [WPA3](#) support.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> encryption wpa3
```

```
(config-if)> no encryption wpa3
```

Example

```
(config-if)> encryption wpa3
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
WPA3 algorithms enabled.
```

```
(config-if)> no encryption wpa3
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
WPA3 algorithms disabled.
```

History

| Version | Description |
|---------|---|
| 3.00 | The interface encryption wpa3 command has been introduced. |

3.29.66 interface encryption wpa3 suite-b

Description

Enable [WPA3](#) security algorithms to protect sensitive data Suite-B for [WPA Enterprise](#). By default, the feature is disabled.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

WiFi

Synopsis

```
(config-if)> encryption wpa3 suite-b
```

Example

```
(config-if)> encryption wpa3 suite-b
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint1": ►
WPA3 SuiteB enabled.
```

History

| Version | Description |
|---------|---|
| 3.01 | The interface encryption wpa3 suite-b command has been introduced. |

3.29.67 interface flowcontrol

Description

Configure Ethernet flow control Tx/Rx. By default, the feature is enabled.
Command with **no** prefix disables the feature.

Prefix no

Yes

Change settings

Yes

| Multiple input | No | | | | | | |
|-----------------------|--|------------------------------------|-------------|-------------|---|----------------|------------------------------------|
| Interface type | Ethernet | | | | | | |
| Synopsis | <pre>(config-if)> flowcontrol on</pre> <pre>(config-if)> no flowcontrol [send]</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>send</td> <td><i>Keyword</i></td> <td>Flow control works asynchronously.</td> </tr> </tbody> </table> | Argument | Value | Description | send | <i>Keyword</i> | Flow control works asynchronously. |
| Argument | Value | Description | | | | | |
| send | <i>Keyword</i> | Flow control works asynchronously. | | | | | |
| Example | <pre>(config-if)> flowcontrol on</pre> <pre>Network::Interface::Ethernet: "GigabitEthernet0/0": flow control ► enabled.</pre> <pre>(config-if)> no flowcontrol send</pre> <pre>Network::Interface::Ethernet: "GigabitEthernet0/0": flow control ► send disabled.</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.08</td> <td>The interface flowcontrol command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.08 | The interface flowcontrol command has been introduced. | | |
| Version | Description | | | | | | |
| 2.08 | The interface flowcontrol command has been introduced. | | | | | | |

3.29.68 interface follow

| | |
|------------------------|--|
| Description | <p>Copy settings from AP on WifiMaster0 (2.4 GHz) to the AP on WifiMaster with an index greater than zero (5 GHz or above).</p> <p>The follower automatically copies all changes applied to the master access point.</p> <p>If you change the follower settings, the link with the master access point is terminated.</p> <p>Warning: The WifiMaster0 access points are always used as a source of settings. They never follow. They can only be followed.</p> |
| Prefix no | No |
| Change settings | Yes |
| Multiple input | No |
| Interface type | AccessPoint |
| Synopsis | <pre>(config-if)> follow <access-point></pre> |

Arguments

| Argument | Value | Description |
|--------------|------------------|---|
| access-point | <i>Interface</i> | The name of an AccessPoint interface on the WifiMaster0 2.4 GHz. You can see the list of available interfaces with help of follow [Tab] command. |

Example

```
(config-if)> follow WifiMaster0/AccessPoint0
Network::Interface::AccessPoint: "WifiMaster1/AccessPoint0": set ►
to follow WifiMaster0/AccessPoint0.
```

History

| Version | Description |
|---------|--|
| 3.07 | The interface follow command has been introduced. |

3.29.69 interface ft enable

Description

Enable support of *FT* for Access Point (FT Over the Air, OTA) within the IEEE 802.11r standard. By default, the option is disabled.

For correct *FT* operation between 2,4 and 5 GHz APs it is necessary to fulfill the following conditions:

- access points 2,4 GHz and 5 GHz are enabled both
- they have the same SSID's
- they have the same security settings (encryption type — WPA2 or without password, password value, etc.)

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

AccessPoint

Synopsis

```
(config-if)> ft enable
```

```
(config-if)> no ft enable
```

Example

```
(config-if)> ft enable
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition enabled.
```

```
(config-if)> no ft enable
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition disabled.
```


| History | Version | Description |
|---------|---------|---|
| | 2.13 | The interface ft enable command has been introduced. |

3.29.70 interface ft mdid

Description Set Mobility Domain ID for *FT*. By default, KN value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type AccessPoint

Synopsis

```
(config-if)> ft mdid <mdid>
```

```
(config-if)> no ft mdid
```

| Arguments | Argument | Value | Description |
|-----------|----------|---------------|---|
| | mdid | <i>String</i> | The value of Mobility Domain ID. Consists of 2 ASCII symbols. |

Example

```
(config-if)> ft mdid 1F
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition MDID set to "1F".
```

```
(config-if)> no ft mdid
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition MDID reset to default.
```

| History | Version | Description |
|---------|---------|---|
| | 2.13 | The interface ft mdid command has been introduced. |

3.29.71 interface ft otd

Description Enable support of *FT* Over-the-DS (Distribution System) within the IEEE 802.11r standard. This type of *FT* is used for roaming in outdated subscriber devices, for example, in the iPhone 4s. By default, the setting is disabled.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No**Interface type** AccessPoint

Synopsis

```
(config-if)> ft otd
```

```
(config-if)> no ft otd
```

Example

```
(config-if)> ft otd
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition OTD enabled.
```

```
(config-if)> no ft otd
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition OTD disabled.
```

History

| Version | Description |
|---------|--|
| 2.13 | The interface ft otd command has been introduced. |

3.29.72 interface hide-ssid

Description Enable hidden *SSID* mode. When using this feature, Access Point will not be displayed in the list of available wireless networks. But if user informed of the existence of this network and know its *SSID*, than he can connect to it. The mode is disabled by default.

Command with **no** prefix disables the mode.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Access Point

Synopsis

```
(config-if)> hide-ssid
```

```
(config-if)> no hide-ssid
```

Example

```
(config-if)> hide-ssid
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
SSID broadcasting disabled.
```

```
(config-if)> no hide-ssid
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
SSID broadcasting enabled.
```

| History | Version | Description |
|---------|---------|---|
| | 2.00 | The interface hide-ssid command has been introduced. |

3.29.73 interface iapp auto

Description Generate *IAPP* key in automatic mode. To assign the key manually, use **interface iapp key** command.

Prefix no No

Change settings Yes

Multiple input No

Interface type Bridge

Synopsis

```
(config-if)> iapp auto
```

Example

```
(config-if)> iapp auto  
Network::Interface::Rtx::Iapp: Bridge0 autoconfigured.
```

| History | Version | Description |
|---------|---------|---|
| | 3.03 | The interface iapp auto command has been introduced. |

3.29.74 interface iapp key

Description Assign the *IAPP* Mobile Domain key for successful synchronization between Access Points where *FT* works (**interface ft enable** command). Access Points must belong to the same IP-subnet. By default, the key is not assigned.

Command with **no** prefix removes key value.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Bridge

Synopsis

```
(config-if)> iapp key <key>
```

```
(config-if)> no iapp key
```

| Arguments | Argument | Value | Description |
|-----------|----------|---------------|--|
| | key | <i>String</i> | The value of <i>IAPP</i> key. Maximum key length is 64 characters. |

Example

```
(config-if)> iapp key 11223344556677
Network::Interface::Rtx::Iapp: Bridge0 key applied.
```

```
(config-if)> no iapp key
Network::Interface::Rtx::Iapp: Bridge0 key cleared.
```

History

| Version | Description |
|---------|--|
| 2.13 | The interface iapp key command has been introduced. |

3.29.75 interface idle-timeout

Description

Set the interval for the STA client to disconnect from the Access Point by inactivity timeout. By default, 600 value is used.

Command with **no** prefix disables the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> idle-timeout idle-timeout
```

```
(config-if)> no idle-timeout
```

Arguments

| Argument | Value | Description |
|--------------|----------------|--|
| idle-timeout | <i>Integer</i> | Idle-timeout value in seconds. Can take values in the range from 60 to 2147483646. |

Example

```
(config-if)> idle-timeout 500
Network::Interface::Rtx::WifiMaster: "WifiMaster1": idle timeout ►
value is 500 sec.
```

```
(config-if)> no idle-timeout
Network::Interface::Rtx::WifiMaster: "WifiMaster1": idle timeout ►
disabled.
```

History

| Version | Description |
|---------|--|
| 3.06 | The interface idle-timeout command has been introduced. |

3.29.76 interface igmp downstream

Description Enable *IGMP* mode on the interface in the direction of the multicast recipients. **service igmp-proxy** must be enabled on the device. There can be several downstream interfaces.

Command with **no** prefix disables the mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> igmp downstream
(config-if)> no igmp downstream
```

Example (config-if)> **igmp downstream**

```
(config-if)> no igmp downstream
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface igmp downstream command has been introduced. |

3.29.77 interface igmp fork

Description Enable the duplication of outgoing packets *IGMP* upstream to the specified interface. There can be only one fork interface.

Command with **no** prefix disables the mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> igmp fork
(config-if)> no igmp fork
```

Example (config-if)> **igmp fork**

```
(config-if)> no igmp fork
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface igmp fork command has been introduced. |

3.29.78 interface igmp upstream

Description

Enable *IGMP* mode on the interface in the direction of the multicast source. **service igmp-proxy** must be enabled on the device. Only one upstream interface is allowed.

Command with **no** prefix disables the mode.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-if)> igmp upstream
```

```
(config-if)> no igmp upstream
```

Example

```
(config-if)> igmp upstream
```

```
(config-if)> no igmp upstream
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface igmp upstream command has been introduced. |

3.29.79 interface include

Description

Specify Ethernet-interface name which will be added to the software bridge as a port.

Command with **no** prefix removes the interface from the bridge.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Bridge

Synopsis

```
(config-if)> include <interface>
```

```
(config-if)> no include <interface>
```

| Argument | Value | Description |
|-----------|------------------|---|
| interface | <i>Interface</i> | Name or alias of the Ethernet-interface that should be plugged into the bridge. |

Example

```
(config-if)> include ISP
Network::Interface::Bridge: "Bridge0": ISP included.

(config-if)> no include
Network::Interface::Bridge: "Bridge0": removed ISP.
```

| Version | Description |
|---------|---|
| 2.00 | The interface include command has been introduced. |

3.29.80 interface inherit

Description Specify the name of the Ethernet-interface which will be added to the program bridge as a port. In contrast with the **include** command, **inherit** command transfers some settings of the interface being added to the bridge, such as IP address, mask and IP-aliases. On removing either the bridge itself or the bridge interface, these settings, even if they have been changed will be copied back to the vacant interface.

The command allows one to add the device control interface to the bridge so that control is not lost.

Command with **no** prefix removes the interface from the bridge, returns the settings that have earlier been inherited by the bridge back to the interface, and resets these settings on the bridge.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Bridge

Synopsis

```
(config-if)> inherit <interface>
(config-if)> no inherit <interface>
```

| Argument | Value | Description |
|-----------|------------------|---|
| interface | <i>Interface</i> | Name or alias of the Ethernet-interface that should be plugged into the bridge. |

Example

```
(config-if)> inherit GigabitEthernet0/Vlan3
Network::Interface::Bridge: "Bridge1": GigabitEthernet0/Vlan3 ►
inherited in Bridge1.
```

```
(config-if)> no inherit
Network::Interface::Bridge: "Bridge1": inherit removed.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface inherit command has been introduced. |

3.29.81 interface ip access-group

Description

Assign a named list of filtering rules (*ACL*, see [access-list](#)) to the interface. Parameter *in* or *out* indicates the traffic direction for which the *ACL* will be applied. Several *ACL*s can be assigned to a single interface.

Command with **no** prefix disables the *ACL* for the specified interface and traffic direction.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config-if)> ip access-group <acl> <direction>
```

```
(config-if)> no ip access-group [ <acl> [ <direction> ] ]
```

Arguments

| Argument | Value | Description |
|-----------|---------------|--|
| acl | <i>String</i> | List of filtering rules as previously created using access-list command. |
| direction | in | Apply filtering to incoming packets. |
| | out | Apply filtering to outgoing packets. |

Example

```
(config-if)> ip access-group BLOCK in
Network::Acl: Input "BLOCK" access list added to "CdcEthernet1".
```

```
(config-if)> ip access-group BLOCK out
Network::Acl: Output "BLOCK" access list added to "CdcEthernet1".
```

```
(config-if)> no ip access-group BLOCK in
Network::Acl: "BLOCK" access group deleted from "CdcEthernet1".
```

```
(config-if)> no ip access-group
Network::Acl: All access groups deleted from "CdcEthernet1".
```


| History | Version | Description |
|---------|---------|---|
| | 2.00 | The interface ip access-group command has been introduced. |

3.29.82 interface ip address

Description Change the IP address and the mask of the network interface. If the address automatic configuration service is running on the interface, for instance, DHCP client, (see [interface ip address dhcp](#)), then the manually set address can be overwritten.

Command with **no** prefix resets the address to 0.0.0.0.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> ip address <address> <mask>
(config-if)> no ip address
```

| Arguments | Argument | Value | Description |
|-----------|----------|-------------------|--|
| | address | <i>IP address</i> | The network interface address. |
| | mask | <i>IP-mask</i> | The network interface mask. There are two ways to specify the mask: the canonical form (for example, 255.255.255.0) and the prefix with bit length (for example, /24). |

Example The network address, defined by the IP address and mask, can be specified in either of the two ways: specify a mask in the canonical form, or set the prefix bit length.

```
(config)> ip address 192.168.9.1/24
Network::Interface::Ip: "Bridge3": IP address is 192.168.9.1/24.
```

```
(config)> no ip address
Network::Interface::Ip: "Bridge3": IP address cleared.
```

| History | Version | Description |
|---------|---------|--|
| | 2.00 | The interface ip address command has been introduced. |

3.29.83 interface ip address dhcp

Description Start the DHCP client to automatically configure the network parameters: IP address and mask of the interface, *DNS* servers and default gateway.

Command with **no** prefix stops the DHCP client, removes the dynamically configured settings and restores the previous settings of IP address and mask.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip address dhcp [ hostname <hostname> ]
(config-if)> no ip address dhcp
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| hostname | <i>String</i> | Name of the host to be placed in the DHCP option 12 field. This name need not be the same as the host name entered in global configuration mode. |

Example

```
(config-if)> ip address dhcp hostname QWERTY2
Dhcp::Client: Started DHCP client on ISP.
```

```
(config-if)> no ip address dhcp
Dhcp::Client: Stopped DHCP client on ISP.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface ip address dhcp command has been introduced. |

3.29.84 interface ip adjust-ttl recv

Description Modify the TTL for all inbound packets on the interface.

Command with **no** prefix cancels the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> ip adjust-ttl rcv <rcv>
```

```
(config-if)> no ip adjust-ttl rcv
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| rcv | <i>Integer</i> | The value of TTL changing. Can take values in the range from 1 to 255 inclusively. |

Example

```
(config-if)> ip adjust-ttl rcv 1
Network::Interface::Ip: "CdcEthernet0": incoming TTL set to 1.
```

```
(config-if)> no ip adjust-ttl rcv
Network::Interface::Ip: "CdcEthernet0": incoming TTL settings ►
removed.
```

History

| Version | Description |
|---------|---|
| 3.07 | The interface ip adjust-ttl rcv command has been introduced. Previous command name is interface ip adjust-ttl . |

3.29.85 interface ip adjust-ttl send

Description

Modify the TTL for all outbound packets on the interface.

Command with **no** prefix cancels the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-if)> ip adjust-ttl send <send>
```

```
(config-if)> no ip adjust-ttl send
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| send | <i>Integer</i> | The value of TTL changing. Can take values in the range from 1 to 255 inclusively. |

Example

```
(config-if)> ip adjust-ttl send 65
Network::Interface::Ip: "CdcEthernet1": outgoing TTL set to 65.
```

```
(config-if)> no ip adjust-ttl send
Network::Interface::Ip: "CdcEthernet1": outgoing TTL settings ►
removed.
```

History

| Version | Description |
|---------|--|
| 2.09 | The interface ip adjust-ttl send command has been introduced. |

3.29.86 interface ip alias

Description Assign an additional IP address and mask to the network interface (alias).
Command with **no** prefix resets the specified alias to 0.0.0.0. If you use no arguments, the entire list of aliases will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP, Ethernet

Synopsis

```
(config-if)> ip alias <address> <mask>
```

```
(config-if)> no ip alias [ <address> <mask> ]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | Additional address of the network interface. |
| mask | <i>IP-mask</i> | Additional mask of the network interface. There are two ways to specify the mask: the canonical form (for example, 255.255.255.0) and the prefix with bit length (for example, /24). |

Example

```
(config-if)> ip alias 192.168.1.88/24
Network::Interface::Ip: "WifiMaster1/WifiStation0": alias 0 is ►
192.168.1.88/24.
```

```
(config-if)> no ip alias 192.168.1.88/24
Network::Interface::Ip: "WifiMaster1/WifiStation0": alias 0 reset ►
to 0.0.0.0/0.
```

```
(config-if)> no ip alias
Network::Interface::Ip: "WifiMaster1/WifiStation0": all aliases ►
removed.
```

| History | Version | Description |
|---------|---------|--|
| | 2.00 | The interface ip alias command has been introduced. |

3.29.87 interface ip dhcp client broadcast

Description Set broadcast bit in the DHCP Discover messages, that indicate to a server how the reply should be sent back to the client. By default, the setting is disabled.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client broadcast
(config-if)> no ip dhcp client broadcast
```

Example

```
(config-if)> ip dhcp client broadcast
Dhcp::Client: ISP DHCP client request broadcast enabled.
```

```
(config-if)> no ip dhcp client broadcast
Dhcp::Client: ISP DHCP client request broadcast disabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.15 | The interface ip dhcp client broadcast command has been introduced. |

3.29.88 interface ip dhcp client class-id

Description Specify the device vendor name where *DHCP* client is running (dhcp option 60).

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client class-id <class>
```

```
(config-if)> no ip dhcp client class-id
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| class | <i>String</i> | Vendor class name, enclosed in double quotes. |

Example

```
(config-if)> ip dhcp client class-id "Carrier"
Dhcp::Client: ISP DHCP client vendor class is set to "Carrier".
```

```
(config-if)> no ip dhcp client class-id
Dhcp::Client: ISP DHCP client vendor class is cleared.
```

History

| Version | Description |
|---------|---|
| 2.02 | The interface ip dhcp client class-id command has been introduced. |

3.29.89 interface ip dhcp client debug

Description

Enable debug mode for DHCP client. Detailed info about DHCP client working is saved to the system log.

Command with **no** prefix disables the debug mode.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-if)> ip dhcp client debug
```

```
(config-if)> no ip dhcp client debug
```

Example

```
(config-if)> ip dhcp client debug
Dhcp::Client: ISP DHCP client debug enabled.
```

```
(config-if)> no ip dhcp client debug
Dhcp::Client: ISP DHCP client debug disabled.
```

History

| Version | Description |
|---------|--|
| 2.01 | The interface ip dhcp client debug command has been introduced. |

3.29.90 interface ip dhcp client displace

Description Displace static address of *what* if it conflicts with an address from DHCP client of main interface.

This command is executed automatically when you connect the USB Ethernet adapter. After that the configuration will be saved and device will be restarted.

Command with **no** prefix cancels the displacement for the specified interface.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client displace <what> [ check-session ]
(config-if)> no ip dhcp client displace <what> [ check-session ]
```

Arguments

| Argument | Value | Description |
|---------------|------------------|---|
| what | <i>Interface</i> | Name or alias of the interface whose static address will be displaced. |
| check-session | <i>Keyword</i> | With active SCGI sessions, it does not allow rebooting and changing the router's network address. By default, command is added to default-config. |

Example

```
(config-if)> ip dhcp client displace Home
Dhcp::Client: ISP added "Home" displacement.
```

```
(config-if)> ip dhcp client displace Home check-session
Dhcp::Client: ISP added "Home" displacement.
```

```
(config-if)> no ip dhcp client displace Home
Dhcp::Client: ISP deleted "Home" displacement.
```

```
(config-if)> no ip dhcp client displace Home check-session
Dhcp::Client: ISP deleted "Home" displacement.
```

History

| Version | Description |
|---------|---|
| 2.03 | The interface ip dhcp client displace command has been introduced. |
| 2.15 | Argument check-session was added. |

3.29.91 interface ip dhcp client dns-routes

Description Enable automatic addition of host routes to the DNS server received from the DHCP server. By default, the setting is enabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client dns-routes
(config-if)> no ip dhcp client dns-routes
```

Example

```
(config-if)> ip dhcp client dns-routes
Dhcp::Client: ISP DHCP client DNS host routes are enabled.
```

```
(config-if)> no ip dhcp client dns-routes
Dhcp::Client: ISP DHCP client DNS host routes are disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface ip dhcp client dns-routes command has been introduced. |

3.29.92 interface ip dhcp client fallback

Description Set static IP address in case of DHCP errors.

Command with **no** prefix cancels setting and sets 0.0.0.0 address.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client fallback <type>
(config-if)> no ip dhcp client fallback
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| type | <i>String</i> | The type of IP address. Currently implemented only one type — static. |

Example

```
(config-if)> ip dhcp client fallback static
Dhcp::Client: A DHCP address fallback is static.
```

```
(config-if)> no ip dhcp client fallback
Dhcp::Client: A DHCP address fallback set to zero for "ISP".
```

| Version | Description |
|---------|---|
| 2.05 | The interface ip dhcp client fallback command has been introduced. |

3.29.93 interface ip dhcp client hostname

Description Assign a host name which is sent in DHCP-request.
Command with **no** prefix resets the host name to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client hostname <hostname>
```

```
(config-if)> no ip dhcp client hostname
```

| Argument | Value | Description |
|----------|---------------|--------------------------|
| hostname | <i>String</i> | The host name to assign. |

Example

```
(config-if)> ip dhcp client hostname MYHOME
Dhcp::Client: ISP DHCP client hostname is set to MYHOME.
```

```
(config-if)> no ip dhcp client hostname
Dhcp::Client: ISP DHCP client hostname is reset to default (HOME).
```

| Version | Description |
|---------|---|
| 2.00 | The interface ip dhcp client hostname command has been introduced. |

3.29.94 interface ip dhcp client name-servers

Description Use *DNS* server addresses which are received via *DHCP*. By default, the function is enabled.

Command with **no** prefix denies using of *DNS* server addresses which are received via *DHCP*.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client name-servers
(config-if)> no ip dhcp client name-servers
```

Example

```
(config-if)> ip dhcp client name-servers
Dhcp::Client: ISP DHCP name servers are enabled.

(config-if)> no ip dhcp client name-servers
Dhcp::Client: ISP DHCP name servers are disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface ip dhcp client name-servers command has been introduced. |

3.29.95 interface ip dhcp client release

Description DHCP client releases lease IP address and goes into sleep mode. Another execution of this command takes DHCP client to the mode of automatical obtaining of IP address.

Prefix no No

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client release
```

Example

```
(config-if)> ip dhcp client release
Dhcp::Client: IP address released.
```

History

| Version | Description |
|---------|--|
| 2.03 | The interface ip dhcp client release command has been introduced. |

3.29.96 interface ip dhcp client renew

| | |
|------------------------|--|
| Description | DHCP client releases lease IP address and passes in a mode of obtaining a new one. |
| Prefix no | No |
| Change settings | Yes |
| Multiple input | No |
| Interface type | Ethernet |

Synopsis

```
(config-if)> ip dhcp client renew
```

Example

```
(config-if)> ip dhcp client renew
Dhcp::Client: IP address renewed.
```

History

| Version | Description |
|---------|--|
| 2.03 | The interface ip dhcp client renew command has been introduced. |

3.29.97 interface ip dhcp client routes

Description

Enable receiving routes from the provider (dhcp options 33, 121, 242). By default it is enabled. In the configuration it is displayed only with **no** prefix.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client routes
```

```
(config-if)> no ip dhcp client routes
```

Example

```
(config-if)> ip dhcp client routes
Dhcp::Client: ISP DHCP client static routes are enabled.
```

```
(config-if)> no ip dhcp client routes
Dhcp::Client: ISP DHCP client static routes are disabled.
```

History

| Version | Description |
|---------|---|
| 2.05 | The interface ip dhcp client routes command has been introduced. |

3.29.98 interface ip flow

Description

Enable *NetFlow* sensor on the specified interface. By default, the setting is disabled.

Command with **no** prefix disables *NetFlow* sensor.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-if)> ip flow <direction>
```

```
(config-if)> no ip flow
```

Arguments

| Argument | Value | Description |
|-----------|---------|---|
| direction | ingress | Collection of incoming traffic. |
| | egress | Collection of outgoing traffic. |
| | both | Collection of incoming and outgoing traffic both. |

Example

```
(config-if)> ip flow ingress
Netflow::Manager: NetFlow collector is enabled on interface ►
"Home" in "ingress" direction.
```

```
(config-if)> ip flow egress
Netflow::Manager: NetFlow collector is enabled on interface ►
"Home" in "egress" direction.
```

```
(config-if)> ip flow both
Netflow::Manager: NetFlow collector is enabled on interface ►
"Home" in "both" direction.
```

History

| Version | Description |
|---------|---|
| 2.11 | The interface ip flow command has been introduced. |

3.29.99 interface ip global

Description Set property “global” with a parameter to the interface. This property is necessary to configure the default route, DynDNS client and NAT functioning. Can represent global-interfaces as leading to the global network (the Internet).

Property “global” affects the interface priority in setting the default route. The higher the priority the more desirable it is for the user to access the global network through the specified interface. Internet access backup (WAN backup) functionality is using priority “global”.

By default, setting is disabled.

Command with **no** prefix removes property.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> ip global (<priority> | order <order> | auto)
(config-if)> no ip global
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| priority | <i>Integer</i> | Interface priority to configure the default route. Can take values in the range from 1 to 65534. |
| order | <i>Integer</i> | Relative priority between interfaces. It can take values in the range from 0 to 65534, but not more than the number of global interfaces. |
| auto | <i>Keyword</i> | Automatic priority calculation of the interface. The interface is located near the end of the list, but above order X. |

Example

```
(config-if)> ip global 10
Network::Interface::IP: "L2TP0": global priority is 10.
```

```
(config-if)> ip global order 0
Network::Interface::IP: "L2TP0": order is 1.
```

```
(config-if)> ip global auto
Network::Interface::IP: Global priority recalculated.
```

```
(config-if)> no ip global
Network::Interface::IP: "L2TP0": global priority cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface ip global command has been introduced. |
| 2.09 | The order and auto arguments were added. |

3.29.100 interface ip mru

Description

Set the value of *MRU* to be transmitted to a remote node during establishing the *PPP (IPCP)* connection. By default, 1460 value is used.

Command with **no** prefix resets the *MRU* value to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

PPP

Synopsis

```
(config-if)> ip mru <mr>
```

```
(config-if)> no ip mru
```

Arguments

| Argument | Value | Description |
|----------|----------------|-------------------|
| mru | <i>Integer</i> | <i>MRU</i> value. |

Example

```
(config-if)> ip mru 1492
Network::Interface::Ppp: "PPPoE0": MRU saved.
```

```
(config-if)> no ip mru
Network::Interface::Ppp: "PPPoE0": MRU reset to default.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface ip mru command has been introduced. |

3.29.101 interface ip mtu

Description

Set the *MTU* value on the network interface. When establishing a connection via *PPP (IPCP)*, packets with defined *MTU* size will be sent to the remote host, even if the host requested a lower *MTU* value.

Command with **no** prefix resets the *MTU* value to that which was before the first use of the command.

Prefix no

Yes

Change settings

Yes

| Multiple input | No | | | | | | |
|-----------------------|--|--|-------------|-------------|--|----------------|--|
| Interface type | IP | | | | | | |
| Synopsis | <pre>(config-if)> ip mtu <mtu></pre> <pre>(config-if)> no ip mtu</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>mtu</td> <td><i>Integer</i></td> <td><i>MTU</i> value. Can take values in the range from 64 to 65535 inclusively.</td> </tr> </tbody> </table> | Argument | Value | Description | mtu | <i>Integer</i> | <i>MTU</i> value. Can take values in the range from 64 to 65535 inclusively. |
| Argument | Value | Description | | | | | |
| mtu | <i>Integer</i> | <i>MTU</i> value. Can take values in the range from 64 to 65535 inclusively. | | | | | |
| Example | <pre>(config-if)> ip mtu 1500</pre> <pre>Network::Interface::Base: "GigabitEthernet1": static MTU is 1500.</pre> <pre>(config-if)> no ip mtu</pre> <pre>Network::Interface::Base: "GigabitEthernet1": static MTU reset ►</pre> <pre>to default.</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.00</td> <td>The interface ip mtu command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.00 | The interface ip mtu command has been introduced. | | |
| Version | Description | | | | | | |
| 2.00 | The interface ip mtu command has been introduced. | | | | | | |

3.29.102 interface ip nat loopback

| | |
|------------------------|---|
| Description | <p>Enable reverse translation to send local requests to the local server from the Internet. By default, the setting is enabled for the Home segment interfaces (private and protected security levels).</p> <p>Command with no prefix disables NAT loopback.</p> |
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Interface type | IP |
| Synopsis | <pre>(config-if)> ip nat loopback</pre> <pre>(config-if)> no ip nat loopback</pre> |
| Example | <pre>(config-if)> ip nat loopback</pre> <pre>Network::StaticNat: NAT loopback is explicitly enabled on "Home".</pre> <pre>(config-if)> no ip nat loopback</pre> <pre>Network::StaticNat: NAT loopback is explicitly disabled on "Home".</pre> |

History

| Version | Description |
|---------|---|
| 2.11 | The ip nat loopback command has been introduced. |

3.29.103 interface ip remote

Description Set a remote peer static address.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ip remote <address>
```

```
(config-if)> no ip remote
```

Arguments

| Argument | Value | Description |
|----------|------------|------------------------|
| address | IP address | A remote peer address. |

Example

```
(config-if)> ip remote 192.168.2.19
Network::Interface::Ppp: "L2TP0": remote address saved.
```

```
(config-if)> no ip remote
Network::Interface::Ppp: "L2TP0": remote address erased.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface ip remote command has been introduced. |

3.29.104 interface ip tcp adjust-mss

Description Set the limit on the segment size of outgoing [TCP](#) sessions. If the [MSS](#) value, which is transmitted in the header of SYN-packets, exceeds the specified limit, command changes it. The command is applied to the interface and affects all outgoing [TCP](#) SYN packets.

Command with **no** prefix removes all limits from [MSS](#).

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> ip tcp adjust-mss (pmtu | <mss> )
(config-if)> no ip tcp adjust-mss
```

| Argument | Value | Description |
|----------|---------|--|
| pmtu | Keyword | Set the upper limit of <i>MSS</i> , equal to the minimum <i>MTU</i> along the path to the remote peer. |
| mss | Integer | <i>MSS</i> upper limit. |

Example

```
(config-if)> ip tcp adjust-mss pmtu
Network::Interface::Ip: "L2TP0": TCP-MSS adjustment enabled.

(config-if)> ip tcp adjust-mss 1300
Network::Interface::Ip: "L2TP0": TCP-MSS adjustment enabled.

(config-if)> no ip tcp adjust-mss
Network::Interface::Ip: "L2TP0": TCP-MSS adjustment disabled.
```

| Version | Description |
|---------|---|
| 2.00 | The interface ip tcp adjust-mss command has been introduced. |

3.29.105 interface ipcp address

Description Use address from the remote peer.
Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ipcp address
(config-if)> no ipcp address
```

Example

```
(config-if)> ipcp address
using address from remote peer

(config-if)> no ipcp address
not using address from remote peer
```

History

| Version | Description |
|---------|--|
| 3.09 | The interface ipcp address command has been introduced. |

3.29.106 interface ipcp default-route

Description Use the remote peer address as default gateway. By default, the setting is enabled.

Command with **no** prefix denies default gateway changing.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ipcp default-route
(config-if)> no ipcp default-route
```

Example

```
(config-if)> ipcp default-route
Using peer as a default gateway.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface ipcp default-route command has been introduced. |

3.29.107 interface ipcp dns-routes

Description Use routes which are received via *IPCP*. By default, the setting is enabled.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ipcp dns-routes
(config-if)> no ipcp dns-routes
```

Example (config-if)> **ipcp dns-routes**
DNS routes enabled

(config-if)> **no ipcp dns-routes**
DNS routes disabled

History

| Version | Description |
|---------|---|
| 2.02 | The interface ipcp dns-routes command has been introduced. |

3.29.108 interface ipcp name-servers

Description Use *DNS* servers addresses which are received via *IPCP*. By default, the setting is enabled.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis (config-if)> **ipcp name-servers**

(config-if)> **no ipcp name-servers**

Example (config-if)> **ipcp name-servers**
using remote name servers.

(config-if)> **no ipcp name-servers**
not using remote name servers.

History

| Version | Description |
|---------|---|
| 2.00 | The interface ipcp name-servers command has been introduced. |

3.29.109 interface ipcp vj

Description Enable compression of TCP/IP headers by Van Jacobson's method. By default, the setting is disabled.

Command with **no** prefix disables compression.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ipcp vj [cid]
(config-if)> no ipcp vj
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| cid | <i>Keyword</i> | Enable compression of Connection ID into headers. |

Example

```
(config-if)> ipcp vj cid
VJ compression enabled.
```

```
(config-if)> no ipcp vj
VJ compression disabled.
```

History

| Version | Description |
|---------|---|
| 2.03 | The interface ipcp vj command has been introduced. |

3.29.110 interface ipsec encryption-level

Description Set encryption level for *IPSec* connection that is automatically associated with the tunnel. By default, the normal value is used.

A detailed description of each level is given in the [Appendix](#).

Command with **no** prefix resets encryption level to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> ipsec encryption-level <level>
(config-if)> no ipsec encryption-level
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| level | weak | Weak level, DES and MD5 algorithms enabled. |
| | normal | Level is compatible with most systems, priority is given to AES128 and SHA1. |
| | normal - 3des | Level is compatible with most systems, priority is given to 3DES and SHA1. |

| Argument | Value | Description |
|----------|-----------------|---|
| | strong | The strongest level, <i>PFS</i> is mandatory, priority is given to AES256 and SHA1. |
| | weak-pfs | The same as weak, but for the second phase <i>PFS</i> group 1 and 2 is enabled. |
| | normal-pfs | The same as normal, but for the second phase <i>PFS</i> group 2 and 5 is enabled. |
| | normal-3des-pfs | The same as normal-3des, but for the second phase <i>PFS</i> group 5 and 14 is enabled. |
| | high | A set of modern algorithms for external providers of VPN services. |
| | strong-aead | The strongest level, priority is given to AES256 and SHA1 with addition of <i>AEAD</i> algorithms. |
| | strong-aead-pfs | The strongest level, <i>PFS</i> is mandatory, priority is given to AES256 and SHA1 with addition of <i>AEAD</i> algorithms. |

Example

```
(config-if)> ipsec encryption-level high
Network::Interface::Secure: "IKE0": security level is set to ►
"high".
```

```
(config-if)> no ipsec encryption-level
Network::Interface::Secure: "IKE0": security level was reset.
```

History

| Version | Description |
|---------|--|
| 2.08 | The interface ipsec encryption-level command has been introduced. |
| 3.07 | New levels of encryption has been added — high, strong-aead and strong-aead-pfs. |

3.29.111 interface ipsec force-encaps

Description Enable support of *ESP* forced encapsulation in *UDP* for client tunnels. By default, the feature is disabled.

Command with **no** prefix cancels the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis | (config-if)> **ipsec force-encaps**

```
(config-if)> no ipsec force-encaps
```

Example

```
(config-if)> ipsec force-encaps
Network::Interface::Secure: Force ESP in UDP encapsulation ►
enabled.
```

```
(config-if)> no ipsec force-encaps
Network::Interface::Secure: Force ESP in UDP encapsulation ►
disabled.
```

History

| Version | Description |
|---------|--|
| 2.12 | The interface ipsec force-encaps command has been introduced. |

3.29.112 interface ipsec ignore

Description

Disable processing incoming *IKE* packets for *IPSec* service on the interface. By default the command is disabled.

Command with **no** prefix cancels the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Secure

Synopsis

```
(config-if)> ipsec ignore
```

```
(config-if)> no ipsec ignore
```

Example

```
(config-if)> ipsec ignore
IpSec::Manager: Interface "Gre0" added to IPsec ignore list.
```

```
(config-if)> no ipsec ignore
IpSec::Manager: Interface "Gre0" removed from IPsec ignore list.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface ipsec ignore command has been introduced. |

3.29.113 interface ipsec ikev2

Description

Enable IKEv2 protocol for *IPSec* connection that is automatically associated with the tunnel. By default, IKEv1 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> ipsec ikev2
(config-if)> no ipsec ikev2
```

Example

```
(config-if)> ipsec ikev2
Network::Interface::Secure: IKEv2 is enabled.

(config-if)> no ipsec ikev2
Network::Interface::Secure: IKEv2 is disabled, enable IKEv1.
```

History

| Version | Description |
|---------|---|
| 2.10 | The interface ipsec ikev2 command has been introduced. |

3.29.114 interface ipsec nail-up

Description Enable automatic changes of the secret keys for L2TP/IPsec, EoIP/IPsec, Gre/IPsec, IPIP/IPsec tunnels. By default, setting is enabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> ipsec nail-up
(config-if)> no ipsec nail-up
```

Example

```
(config-if)> ipsec nail-up
Network::Interface::Secure: SA renegotiation enabled.

(config-if)> no ipsec nail-up
Network::Interface::Secure: SA renegotiation disabled.
```

History

| Version | Description |
|---------|---|
| 2.12 | The interface ipsec nail-up command has been introduced. |

3.29.115 interface ipsec name-servers**Description**

Use *DNS* server addresses which are received via IKEv1 or IKEv2 *IPSec* server. By default, the function is enabled.

Command with **no** prefix denies using of *DNS* server addresses which are received via IKEv1 and IKEv2 *IPSec* server.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Secure

Synopsis

```
(config-if)> ipsec name-servers
```

```
(config-if)> no ipsec name-servers
```

Example

```
(config-if)> ipsec name-servers
```

```
IpSec::Interface::Ike: "IKE0": automatic name servers via IKE ►  
Configuration Payload are enabled.
```

```
(config-if)> no ipsec name-servers
```

```
IpSec::Interface::Ike: "IKE0": automatic name servers via IKE ►  
Configuration Payload are disabled.
```

History

| Version | Description |
|---------|--|
| 3.06 | The interface ipsec name-servers command has been introduced. |

3.29.116 interface ipsec preshared-key**Description**

Set PSK key for *IPSec* connection that is automatically associated with the tunnel. Command also enables *IPSec* for this tunnel.

Command with **no** prefix resets the key.

Prefix no

Yes

Change settings

Yes

Multiple input

No

| Interface type | Secure | | | | | | |
|-----------------------|---|-----------------------|-------------|-------------|---|---------------|-----------------------|
| Synopsis | <pre>(config-if)> ipsec preshared-key <key></pre> <pre>(config-if)> no ipsec preshared-key</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>key</td> <td><i>String</i></td> <td>Secret PSK key value.</td> </tr> </tbody> </table> | Argument | Value | Description | key | <i>String</i> | Secret PSK key value. |
| Argument | Value | Description | | | | | |
| key | <i>String</i> | Secret PSK key value. | | | | | |
| Example | <pre>(config-if)> ipsec preshared-key 12345678</pre> <pre>Network::Interface::Secure: "Gre0": preshared key was set.</pre> <pre>(config-if)> no ipsec preshared-key</pre> <pre>Network::Interface::Secure: "Gre0": preshared key was reset.</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.08</td> <td>The interface ipsec preshared-key command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.08 | The interface ipsec preshared-key command has been introduced. | | |
| Version | Description | | | | | | |
| 2.08 | The interface ipsec preshared-key command has been introduced. | | | | | | |

3.29.117 interface ipsec proposal lifetime

| Description | Set lifetime of <i>IPSec</i> transformation Phase1 on the interface. By default, the value 28800 is used. Command with no prefix resets setting to default. | | | | | | |
|------------------------|--|---|-------|-------------|----------|----------------|---|
| Prefix no | Yes | | | | | | |
| Change settings | Yes | | | | | | |
| Multiple input | No | | | | | | |
| Interface type | Secure | | | | | | |
| Synopsis | <pre>(config-if)> ipsec proposal lifetime <lifetime></pre> <pre>(config-if)> no ipsec proposal lifetime</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>lifetime</td> <td><i>Integer</i></td> <td>Lifetime of <i>IPSec</i> transformation in seconds. Can take values in the range from 60 to 2147483647.</td> </tr> </tbody> </table> | Argument | Value | Description | lifetime | <i>Integer</i> | Lifetime of <i>IPSec</i> transformation in seconds. Can take values in the range from 60 to 2147483647. |
| Argument | Value | Description | | | | | |
| lifetime | <i>Integer</i> | Lifetime of <i>IPSec</i> transformation in seconds. Can take values in the range from 60 to 2147483647. | | | | | |
| Example | <pre>(config-if)> ipsec proposal lifetime 222222</pre> <pre>Network::Interface::Secure: IPsec IKE proposal lifetime set to ►</pre> <pre>222222 s.</pre> | | | | | | |

```
(config-if)> no ipsec proposal lifetime
Network::Interface::Secure: IPsec IKE proposal lifetime reset ►
to 28800 s.
```

History

| Version | Description |
|---------|---|
| 2.11 | The interface ipsec proposal lifetime command has been introduced. |

3.29.118 interface ipsec proposal local-id

Description Set custom local identifier for *IKE*.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> ipsec proposal local-id <local-id>
(config-if)> no ipsec proposal local-id
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| local-id | <i>String</i> | IP address or domain name of local host. |

Example

```
(config-if)> ipsec proposal local-id 192.168.8.4
Network::Interface::Secure: Set IKE local ID to "192.168.8.4".
```

```
(config-if)> no ipsec proposal local-id
Network::Interface::Secure: Reset IKE local ID.
```

History

| Version | Description |
|---------|---|
| 3.08 | The interface ipsec proposal local-id command has been introduced. |

3.29.119 interface ipsec proposal remote-id

Description Set custom remote identifier for *IKE*.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes**Multiple input** No**Interface type** Secure

Synopsis

```
(config-if)> ipsec proposal remote-id <remote-id>
```

```
(config-if)> no ipsec proposal remote-id
```

| Argument | Value | Description |
|-----------|---------------|---|
| remote-id | <i>String</i> | IP address or domain name of remote host. |

Example

```
(config-if)> ipsec proposal remote-id my.domain.com
Network::Interface::Secure: Set IKE remote ID to "my.domain.com".
```

```
(config-if)> no ipsec proposal remote-id
Network::Interface::Secure: Reset IKE remote ID.
```

| Version | Description |
|---------|--|
| 3.08 | The interface ipsec proposal remote-id command has been introduced. |

3.29.120 interface ipsec transform-set lifetime

Description Set lifetime of *IPSec* transformation Phase2 on the interface. By default, the value 28800 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Secure

Synopsis

```
(config-if)> ipsec transform-set lifetime <lifetime>
```

```
(config-if)> no ipsec transform-set lifetime
```

| Argument | Value | Description |
|----------|----------------|---|
| lifetime | <i>Integer</i> | Lifetime of <i>IPSec</i> transformation in seconds. Can take values in the range from 60 to 2147483647. |

Example

```
(config-if)> ipsec transform-set lifetime 2222222
Network::Interface::Secure: IPsec ESP transform-set lifetime set ►
to 2222222 s.
```

```
(config-if)> no ipsec transform-set lifetime
Network::Interface::Secure: IPsec ESP transform-set lifetime ►
reset to 28800 s.
```

History

| Version | Description |
|---------|--|
| 2.11 | The interface ipsec transform-set lifetime command has been introduced. |

3.29.121 interface ipv6 address

Description

Configure an IPv6 address on the interface. If the argument is **auto**, address is autoconfigured. Passing a literal address as an argument will assign it statically.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-if)> ipv6 address (<address> | <block> | auto)
```

```
(config-if)> no ipv6 address [<address> | <block> | auto]
```

Arguments

| Argument | Value | Description |
|----------|---------------------|--|
| address | <i>IPv6 address</i> | The network interface address. |
| block | <i>IPv6 address</i> | The network interface address with mask. |
| auto | <i>Keyword</i> | Enable stateless autoconfiguration. |

Example

```
(config-if)> ipv6 address 2a01:291:2:612:52ff:20ff:fe00:1e87
Network::Interface::Ip6: "GigabitEthernet1": added static address ►
2a01:291:2:612:52ff:20ff:fe00:1e87.
```

```
(config-if)> ipv6 address 2001:db8::1
Network::Interface::Ip6: "GigabitEthernet1": added static address ►
2001:db8::1.
```

```
(config-if)> ipv6 address fd08:a648:e303::3/64
Network::Interface::Ip6: "GigabitEthernet1": added static address ►
fd08:a648:e303::3/64.
```

```
(config-if)> no ipv6 address 2a01:291:2:612:52ff:20ff:fe00:1e87
Network::Interface::Ip6: "GigabitEthernet1": removed static ►
address 2a01:291:2:612:52ff:20ff:fe00:1e87.
```

```
(config-if)> no ipv6 address
Network::Interface::Ip6: "GigabitEthernet1": cleared addresses.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface ipv6 address command has been introduced. |

3.29.122 interface ipv6 dhcp client pd hint

Description Configure DHCPv6 client prefix delegation hint.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> ipv6 dhcp client pd hint <prefix>
```

```
(config-if)> no ipv6 dhcp client pd hint
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| prefix | <i>Prefix</i> | Requested IPv6 prefix or only its length if specified as <code>::/length</code> . |

Example

```
(config-if)> ipv6 dhcp client pd hint fd08:a648:e303::/64
Ip6::Dhcp::Client: "GigabitEthernet1": set a prefix delegation ►
hint to "fd08:a648:e303::/64".
```

```
(config-if)> ipv6 dhcp client pd hint ::/64
Ip6::Dhcp::Client: "GigabitEthernet1": set a prefix delegation ►
hint to "::/64".
```

```
(config-if)> no ipv6 dhcp client pd hint
Ip6::Dhcp::Client: "GigabitEthernet1": reset prefix delegation ►
hint.
```

History

| Version | Description |
|---------|--|
| 4.01 | The interface ipv6 dhcp client pd hint command has been introduced. |

3.29.123 interface ipv6 id

Description Set the way of IPv6 interface identifier generation. By default, the eui64 value is used.

Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> ipv6 id (<suffix> | eui64 | random)
(config-if)> no ipv6 id
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| suffix | <i>Suffix</i> | The static suffix. |
| eui64 | <i>Keyword</i> | The identifier is based on the interface MAC address. |
| random | <i>Keyword</i> | Random generation of the interface identifier. |

Example

```
(config-if)> ipv6 id ::2
Network::Interface::Ip6: "Bridge0": interface ID is set to ::2.
```

```
(config-if)> ipv6 id eui64
Network::Interface::Ip6: "Bridge0": interface ID is set to eui64.
```

```
(config-if)> ipv6 id random
Network::Interface::Ip6: "Bridge0": interface ID is set to random.
```

```
(config-if)> no ipv6 id
Network::Interface::Ip6: "Bridge0": interface ID is reset to ►
default value.
```

History

| Version | Description |
|---------|---|
| 4.01 | The interface ipv6 id command has been introduced. |

3.29.124 interface ipv6 name-servers

Description Configure retrieval of *DNS* information. When **auto** is set, enables DHCPv6 name-server requests.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

| Multiple input | No | | | | | | |
|-----------------------|--|---------------------------------------|-------------|-------------|---|----------------|---------------------------------------|
| Synopsis | <pre>(config-if)> ipv6 name-servers (auto)</pre> <pre>(config-if)> no ipv6 name-servers [auto]</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>auto</td> <td><i>Keyword</i></td> <td>Enable name-server autoconfiguration.</td> </tr> </tbody> </table> | Argument | Value | Description | auto | <i>Keyword</i> | Enable name-server autoconfiguration. |
| Argument | Value | Description | | | | | |
| auto | <i>Keyword</i> | Enable name-server autoconfiguration. | | | | | |
| Example | <pre>(config-if)> ipv6 name-servers auto</pre> <p>Name servers provided by the interface network are accepted.</p> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.00</td> <td>The interface ipv6 name-servers command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.00 | The interface ipv6 name-servers command has been introduced. | | |
| Version | Description | | | | | | |
| 2.00 | The interface ipv6 name-servers command has been introduced. | | | | | | |

3.29.125 interface ipv6 prefix

| Description | <p>Configure prefix delegation. When auto is set, prefix is requested via DHCPv6-PD.</p> <p>Command with no prefix removes the setting.</p> | | | | | | | | | |
|------------------------|---|---------------------------|-------------|-------------|---|----------------|---------------------------|--------|---------------|-------------------------|
| Prefix no | Yes | | | | | | | | | |
| Change settings | Yes | | | | | | | | | |
| Multiple input | No | | | | | | | | | |
| Synopsis | <pre>(config-if)> ipv6 prefix (<prefix> auto)</pre> <pre>(config-if)> no ipv6 prefix [<prefix> auto]</pre> | | | | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>auto</td> <td><i>Keyword</i></td> <td>Enable prefix delegation.</td> </tr> <tr> <td>prefix</td> <td><i>Prefix</i></td> <td>Manual input of prefix.</td> </tr> </tbody> </table> | Argument | Value | Description | auto | <i>Keyword</i> | Enable prefix delegation. | prefix | <i>Prefix</i> | Manual input of prefix. |
| Argument | Value | Description | | | | | | | | |
| auto | <i>Keyword</i> | Enable prefix delegation. | | | | | | | | |
| prefix | <i>Prefix</i> | Manual input of prefix. | | | | | | | | |
| Example | <pre>(config-if)> ipv6 prefix 2001:db8:43:ab12::/64</pre> <p>Static IPv6 prefix added.</p> | | | | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.00</td> <td>The interface ipv6 prefix command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.00 | The interface ipv6 prefix command has been introduced. | | | | | |
| Version | Description | | | | | | | | | |
| 2.00 | The interface ipv6 prefix command has been introduced. | | | | | | | | | |

3.29.126 interface ipv6cp

Description Enable *IPv6CP* support during establishing connection.

Command with **no** prefix disables *IPv6CP*.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ipv6cp
(config-if)> no ipv6cp
```

Example

```
(config-if)> ipv6cp
IPv6CP enabled.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface ipv6cp command has been introduced. |

3.29.127 interface lcp acfc

Description Enable compression negotiation of the *Data Link Layer Address and Control fields*. By default, the feature is disabled.

Command with **no** prefix disables this option and all the remote peer requests for the *ACFC* negotiation will be rejected.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> lcp acfc [cid]
(config-if)> no lcp acfc
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| cid | <i>Keyword</i> | Enable compression of Connection ID into headers. |

Example (config-if)> **lcp acfc cid**
ACFC compression enabled

(config-if)> **no lcp acfc cid**
ACFC compression disabled

History

| Version | Description |
|---------|--|
| 2.03 | The interface lcp acfc command has been introduced. |

3.29.128 interface lcp echo

Description Specify the testing rules of the *PPP* connection with *LCP* echo tools.

By default, `interval` is set to 30, `count` is set to 3.

Command with **no** prefix disables *LCP* echo.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis (config-if)> **lcp echo** *interval* *count* [**adaptive**]

(config-if)> **no lcp echo**

Arguments

| Argument | Value | Description |
|-----------------------|----------------|---|
| <code>interval</code> | <i>Integer</i> | Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply. |
| <code>count</code> | <i>Integer</i> | The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated. |
| <code>adaptive</code> | <i>Keyword</i> | Pppd will send LCP echo-request frames only if no traffic was received from the peer since the last echo-request was sent. |

Example (config-if)> **lcp echo 20 2**
Network::Interface::Ppp: "PPPoE0": LCP echo parameters updated.

(config-if)> **no lcp echo**
Network::Interface::Ppp: "PPPoE0": LCP echo disabled.

History

| Version | Description |
|---------|--|
| 2.00 | The interface lcp echo command has been introduced. |
| 2.06 | The adaptive keyword has been added. |

3.29.129 interface lcp pfc**Description**

Enable compression negotiation of the *PPP Protocol field*. By default, the feature is disabled.

Command with **no** prefix disables this option and all the remote peer requests for the *PFC* negotiation will be rejected.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

PPP

Synopsis

```
(config-if)> lcp pfc [cid]
```

```
(config-if)> no lcp pfc
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| cid | <i>Keyword</i> | Enable compression of Connection ID into headers. |

Example

```
(config-if)> lcp pfc cid
PFC compression enabled
```

```
(config-if)> no lcp pfc cid
PFC compression disabled
```

History

| Version | Description |
|---------|---|
| 2.03 | The interface lcp pfc command has been introduced. |

3.29.130 interface ldpc**Description**

Enable the *LDPC* code for AP 5 GHz. By default, the feature is disabled.

Command with **no** prefix disables this feature.

Prefix no

Yes

Change settings

Yes

| Multiple input | No | | | | |
|-----------------------|---|---------|-------------|------|--|
| Interface type | WifiMaster | | | | |
| Synopsis | <pre>(config-if)> ldpc</pre> <pre>(config-if)> no ldpc</pre> | | | | |
| Example | <pre>(config-if)> ldpc</pre> <pre>Network::Interface::Rtx::WifiMaster: "WifiMaster1": LDPC enabled.</pre> <pre>(config-if)> no ldpc</pre> <pre>Network::Interface::Rtx::WifiMaster: "WifiMaster1": LDPC disabled.</pre> | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.07</td> <td>The interface ldpc command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.07 | The interface ldpc command has been introduced. |
| Version | Description | | | | |
| 2.07 | The interface ldpc command has been introduced. | | | | |

3.29.131 interface led wan

| Description | <p>Display the interface status by means of LED. SelectedWan control should be chosen with system led command. By default, function is disabled.</p> <p>Command with no prefix disables the feature.</p> | | | | |
|------------------------|--|---------|-------------|------|---|
| Prefix no | Yes | | | | |
| Change settings | Yes | | | | |
| Multiple input | No | | | | |
| Synopsis | <pre>(config-if)> led wan</pre> <pre>(config-if)> no led wan</pre> | | | | |
| Example | <pre>(config-if)> led wan</pre> <pre>Network::Interface::Led: Selected WAN GigabitEthernet1.</pre> <pre>(config-if)> no led wan</pre> <pre>Network::Interface::Led: Selected no WAN.</pre> | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.08</td> <td>The interface led wan command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.08 | The interface led wan command has been introduced. |
| Version | Description | | | | |
| 2.08 | The interface led wan command has been introduced. | | | | |

3.29.132 interface lldp disable

| | |
|--------------------|--|
| Description | <p>Disable LLDP agent on interface. By default, the feature is enabled.</p> <p>Command with no prefix enables LLDP agent.</p> |
|--------------------|--|

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config-if)> lldp disable
```

```
(config-if)> no lldp disable
```

Example

```
(config-if)> lldp disable
Network::DiscoveryManager: LLDP agent is disabled on interface ►
"ISP".
```

```
(config-if)> no lldp disable
Network::DiscoveryManager: LLDP agent is enabled on interface ►
"ISP".
```

History

| Version | Description |
|---------|--|
| 2.11 | The interface lldp disable command has been introduced. |

3.29.133 interface mac access-list address

Description Add a MAC address to the permit/deny filtering list of the interface. Type of access list is set with [interface mac access-list type](#) command.

Command with **no** prefix removes the specified MAC address from the [ACL](#).

Prefix no Yes**Change settings** Yes**Multiple input** Yes**Interface type** Access Point

Synopsis

```
(config-if)> mac access-list address <address>
```

```
(config-if)> no mac access-list address <address>
```

Arguments

| Argument | Value | Description |
|----------|--------------------|--|
| address | <i>MAC address</i> | A MAC address to be added to the ACL . |

Example

```
(config-if)> mac access-list address 64:a2:f9:53:b2:12
Network::Interface::Ethernet: "WifiMaster0/AccessPoint1": added ►
64:a2:f9:53:b2:12 to the ACL.
```

```
(config-if)> no mac access-list address 64:a2:f9:53:b2:12
Network::Interface::Ethernet: "WifiMaster0/AccessPoint1": removed ►
64:a2:f9:53:b2:12 from the ACL.
```

```
(config-if)> no mac access-list address
Network::Interface::Ethernet: "WifiMaster0/AccessPoint1": ACL ►
cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface mac access-list address command has been introduced. |

3.29.134 interface mac access-list type

Description Set the type for filtering list of the interface. Type is not defined by default (none value assigned).

Prefix no No

Change settings Yes

Multiple input No

Interface type Access Point

Synopsis | (config-if)> **mac access-list type** <type>

Arguments

| Argument | Value | Description |
|----------|--------|--|
| type | none | Type of filtering list is not defined. |
| | permit | Only approved MAC addresses will be added to the list. |
| | deny | Only restricted MAC addresses will be added to the list. |

Example

```
(config-if)> mac access-list type permit
Network::Interface::Ethernet: "WifiMaster0/AccessPoint1": ACL ►
type changed to permit.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface mac access-list type command has been introduced. |

3.29.135 interface mac address

Description Set the MAC address to the specified network interface. Address is specified in hexadecimal format 00:00:00:00:00:00. The command allows one to assign arbitrary address, but warns the user if the new address “multicast” bit is set or “OUI enforced” bit is cleared.

Command with **no** prefix resets the original MAC addresses on the interface.

Warning: Change MAC address on Wi-Fi interface is prohibited.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type MAC

Synopsis

```
(config-if)> mac address <mac>
```

```
(config-if)> no mac address
```

Arguments

| Argument | Value | Description |
|----------|-------------|-----------------------------------|
| mac | MAC address | New MAC address of the interface. |

Example

```
(config-if)> mac address 3C:1F:6E:2A:1C:BA
```

```
(config-if)> no mac address
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface mac address command has been introduced. |

3.29.136 interface mac address factory

Description Set the factory MAC address to the interface.

Prefix no No

Change settings Yes

Multiple input No

Interface type MAC

Synopsis

```
(config-if)> mac address factory <name>
```

Arguments

| Argument | Value | Description |
|----------|-------|--|
| name | lan | "LAN" MAC address will be assigned to the interface. |
| | wan | "WAN" MAC address will be assigned to the interface. |
| | wlan5 | "WLAN5" MAC address will be assigned to the interface. |

Example

```
(config-if)> mac address factory lan
Core::System::UConfig: done.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface mac address factory command has been introduced. |

3.29.137 interface mac band

Description

Bind a registered host to a 2.4 GHz or 5 GHz frequency band.

Command with **no** prefix removes the binding. If you use no argument, the entire list of bindings will be cleared.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Bridge

Synopsis

```
(config-if)> mac band <mac> <band>
```

```
(config-if)> no mac band [ <mac> ]
```

Arguments

| Argument | Value | Description |
|----------|-------------|---------------------------------------|
| mac | MAC address | MAC address of the registered client. |
| band | 0 | 2,4 GHz band. |
| | 1 | 5 GHz band. |

Example

```
(config-if)> mac band c0:b8:83:c2:cb:11 0
Network::Interface::Rtx::MacBand: "Bridge0": bound ►
c0:b8:83:c2:cb:11 to 2.4 GHz.
```

```
(config-if)> mac band c0:b8:83:c2:cb:11 1
Network::Interface::Rtx::MacBand: "Bridge0": bound ►
c0:b8:83:c2:cb:11 to 5 GHz.
```

```
(config-if)> no mac band c0:b8:83:c2:cb:85
Network::Interface::Rtx::MacBand: "Bridge0": unbound ►
c0:b8:83:c2:cb:85 from 2.4 GHz.
```

```
(config-if)> no mac band
Network::Interface::Rtx::MacBand: Unbound all hosts.
```

History

| Version | Description |
|---------|--|
| 3.05 | The interface mac band command has been introduced. |

3.29.138 interface mac bssid

Description Specify the Access Point's MAC address to connect to [WISP](#).

Command with **no** prefix removes the MAC address.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WifiStation

Synopsis `(config-if)> mac bssid <bssid>`

`(config-if)> no mac bssid`

Arguments

| Argument | Value | Description |
|----------|--------------------|-----------------------------------|
| bssid | <i>MAC address</i> | MAC address of WISP Access Point. |

Example

```
(config-if)> mac bssid 56:ff:20:00:1e:11
Network::Interface::WifiStation: BSSID set to 56:ff:20:00:1e:11.
```

```
(config-if)> no mac bssid
Network::Interface::WifiStation: BSSID cleared.
```

History

| Version | Description |
|---------|---|
| 2.13 | The interface mac bssid command has been introduced. |

3.29.139 interface mac clone

Description Clone the MAC address from the operator's PC to the interface.

Prefix no No

Change settings Yes

| Multiple input | No | | | | |
|-----------------------|--|---------|-------------|------|---|
| Interface type | MAC, IP | | | | |
| Synopsis | <code>(config-if)> mac clone</code> | | | | |
| Example | <code>(config-if)> mac clone</code> | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.00</td> <td>The interface mac clone command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.00 | The interface mac clone command has been introduced. |
| Version | Description | | | | |
| 2.00 | The interface mac clone command has been introduced. | | | | |

3.29.140 interface mobile lte disable-band

| Description | <p>Disable specified LTE band.</p> <p>Command with no prefix enables LTE band. If you use no argument, the entire list of LTE bands will be enabled.</p> | | | | | | |
|------------------------|--|---|-------------|-------------|---|----------------|---|
| Prefix no | Yes | | | | | | |
| Change settings | Yes | | | | | | |
| Multiple input | Yes | | | | | | |
| Interface type | Usb | | | | | | |
| Synopsis | <pre>(config-if)> mobile lte disable-band <band> (config-if)> no mobile lte disable-band [<band>]</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>band</td> <td><i>Integer</i></td> <td>LTE band in the range from 1 to 43 inclusively.</td> </tr> </tbody> </table> | Argument | Value | Description | band | <i>Integer</i> | LTE band in the range from 1 to 43 inclusively. |
| Argument | Value | Description | | | | | |
| band | <i>Integer</i> | LTE band in the range from 1 to 43 inclusively. | | | | | |
| Example | <pre>(config-if)> mobile lte disable-band 22 UsbQmi::Interface: "UsbQmi0": LTE band 22 disabled. (config-if)> no mobile lte disable-band 22 UsbQmi::Interface: "UsbQmi0": LTE band 22 enabled. (config-if)> no mobile lte disable-band UsbQmi::Interface: "UsbQmi0": all LTE bands are enabled.</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>3.04</td> <td>The interface mobile lte disable-band command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 3.04 | The interface mobile lte disable-band command has been introduced. | | |
| Version | Description | | | | | | |
| 3.04 | The interface mobile lte disable-band command has been introduced. | | | | | | |

3.29.141 interface mobile name-servers

Description Use [DNS](#) server addresses which are received via mobile operator. By default, the function is enabled.

Command with **no** prefix denies using of [DNS](#) server addresses which are received via mobile operator.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

```
(config-if)> mobile name-servers
(config-if)> no mobile name-servers
```

Example

```
(config-if)> mobile name-servers
UsbQmi::Interface: "UsbQmi0": automatic name servers via QMI are ►
enabled.
```

```
(config-if)> no mobile name-servers
UsbQmi::Interface: "UsbQmi0": automatic name servers via QMI are ►
disabled.
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface mobile name-servers command has been introduced. |

3.29.142 interface mobile operator

Description Set network identifier for [PLMN](#).

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

```
(config-if)> mobile operator <PLMN>
(config-if)> no mobile operator
```

| Argument | Value | Description |
|----------|---------------|----------------------|
| PLMN | <i>String</i> | Operator identifier. |

Example

```
(config-if)> mobile operator 25011
UsbQmi::Interface: Operator PLMN is set to "25011".
```

```
(config-if)> no mobile operator
UsbQmi::Interface: Operator PLMN cleared.
```

History

| Version | Description |
|---------|---|
| 3.04 | The interface mobile operator command has been introduced. |

3.29.143 interface mobile pdp

Description

Choose IP protocol version for USB modem. IPv6 can be selected only if the corresponding system component is installed. By default, ipv4 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> mobile pdp (ipv4 | ipv6 | ipv4v6)
```

```
(config-if)> no mobile pdp
```

Arguments

| Argument | Value | Description |
|----------|---------------|---------------------------|
| ipv4 | <i>String</i> | IPv4 only. |
| ipv6 | <i>String</i> | IPv6 only. |
| ipv4v6 | <i>String</i> | IPv4 and IPv6 dual stack. |

Example

```
(config-if)> mobile pdp ipv4
UsbQmi::Interface: Packet data protocol is set to "ipv4".
```

```
(config-if)> mobile pdp ipv4v6
UsbQmi::Interface: Packet data protocol is set to "ipv4v6".
```

```
(config-if)> no mobile pdp
Mobile::Interface: "UsbLte0": packet data protocol is reset to ►
default.
```

History

| Version | Description |
|---------|--|
| 3.04 | The interface mobile pdp command has been introduced. |
| 3.08 | The ipv6 argument and NO prefix were added. |

3.29.144 interface mobile roaming**Description**

Enable mobile roaming.

Command with **no** prefix disables the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> mobile roaming
```

```
(config-if)> no mobile roaming
```

Example

```
(config-if)> mobile roaming  
UsbQmi::Interface: "UsbQmi0": roaming is enabled.
```

```
(config-if)> no mobile roaming  
UsbQmi::Interface: "UsbQmi0": roaming is disabled.
```

History

| Version | Description |
|---------|--|
| 3.03 | The interface mobile roaming command has been introduced. |

3.29.145 interface mobile scan**Description**

Run a mobile network scan. The scanning process takes 20-50 seconds.

Command with **no** prefix stops scanning.

Prefix no

Yes

Change settings

No

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> mobile scan
```

```
(config-if)> no mobile scan
```

Example

```
(config-if)> mobile scan
UsbQmi::Interface: Network scanning started.
```

```
(config-if)> no mobile scan
UsbQmi::Interface: Network scanning stopped.
```

History

| Version | Description |
|---------|---|
| 3.05 | The interface mobile scan command has been introduced. |

3.29.146 interface mobile umts disable-band

Description

Disable specified UMTS band.

Command with **no** prefix enables UMTS band. If you use no argument, the entire list of UMTS bands will be enabled.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Usb

Synopsis

```
(config-if)> mobile umts disable-band <band>
```

```
(config-if)> no mobile umts disable-band [ <band> ]
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| band | <i>Integer</i> | UMTS band. Can take values 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 26. |

Example

```
(config-if)> mobile umts disable-band 6
UsbQmi::Interface: "UsbQmi0": WCDMA band 6 disabled.
```

```
(config-if)> no mobile lte disable-band 6
UsbQmi::Interface: "UsbQmi0": WCDMA band 6 enabled.
```

```
(config-if)> no mobile lte disable-band
UsbQmi::Interface: "UsbQmi0": all WCDMA bands are enabled.
```

History

| Version | Description |
|---------|--|
| 3.05 | The interface mobile umts disable-band command has been introduced. |

3.29.147 interface modem connect

Description Command to connect for USB-modem. Modem must be initialized with **tty init** command before execution.

Command with **no** prefix terminates the connection.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type UsbModem

Synopsis

```
(config-if)> modem connect ( dial <phone> | <string> )
(config-if)> no modem connect
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------------|
| phone | <i>String</i> | The phone number for dialing. |
| string | <i>String</i> | An arbitrary command. |

Example

```
(config-if)> modem connect dial *99#
Network::Interface::UsbModem: "UsbModem0": connect sequence saved.
```

```
(config-if)> modem connect dial *99#
Network::Interface::UsbModem: "UsbModem0": connect sequence ►
cleared.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface modem connect command has been introduced. |

3.29.148 interface modem timeout

Description Set modem connection timeout. Setting is used for slow modems/connections. By default, 30 value is used.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type UsbModem

Synopsis

```
(config-if)> modem timeout <timeout>
```

```
(config-if)> no modem timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | Value of timeout in seconds. Can take values in the range from 1 to 600 inclusively. |

Example

```
(config-if)> modem timeout 300
```

```
Network::Interface::UsbModem: "UsbModem0": connect timeout is ►  
300 seconds.
```

```
(config-if)> no modem timeout
```

```
Network::Interface::UsbModem: "UsbModem0": connect timeout is ►  
unchanged, defaults to 30 seconds.
```

History

| Version | Description |
|---------|---|
| 2.05 | The interface modem timeout command has been introduced. |

3.29.149 interface openvpn accept-routes

Description

Enable receiving routes from a remote side via OpenVPN.

Command with **no** prefix disables the feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

OpenVPN

Synopsis

```
(config-if)> openvpn accept-routes
```

```
(config-if)> no openvpn accept-routes
```

Example

```
(config-if)> openvpn accept-routes
```

```
Network::Interface::OpenVpn: "OpenVPN0": enable automatic routes ►  
accept via tunnel.
```

```
(config-if)> no openvpn accept-routes
```

```
Network::Interface::OpenVpn: "OpenVPN0": disable automatic routes ►  
accept via tunnel.
```

History

| Version | Description |
|---------|---|
| 2.10 | The interface openvpn accept-routes command has been introduced. |

3.29.150 interface openvpn connect

Description Set interface for OpenVPN connection. If you use no argument, connection is set via any interface.

Prefix no No

Change settings Yes

Multiple input No

Interface type OpenVPN

Synopsis

```
(config-if)> openvpn connect [ via <via> ]
(config-if)> openvpn connect
```

Arguments

| Argument | Value | Description |
|----------|------------------|----------------------------------|
| via | <i>Interface</i> | Full interface name or an alias. |

Example

```
(config-if)> openvpn connect via ISP
Network::Interface::OpenVpn: "OpenVPN0": set connection via ISP.

(config-if)> openvpn connect
Network::Interface::OpenVpn: "OpenVPN0": set connection via any ►
interface.
```

History

| Version | Description |
|---------|---|
| 2.10 | The interface openvpn connect command has been introduced. |

3.29.151 interface openvpn name-servers

Description Use [DNS](#) server addresses which are received via OpenVPN server. By default, the function is enabled.

Command with **no** prefix denies using of [DNS](#) server addresses which are received via OpenVPN server.

Prefix no Yes

Change settings Yes

Multiple input No

| Interface type | OpenVPN | | | | |
|-----------------------|---|---------|-------------|------|--|
| Synopsis | <pre>(config-if)> openvpn name-servers</pre> <pre>(config-if)> no openvpn name-servers</pre> | | | | |
| Example | <pre>(config-if)> openvpn name-servers</pre> <p>Network::Interface::OpenVpn: "OpenVPN0": automatic name servers ▶ via tunnel are enabled.</p> <pre>(config-if)> no openvpn name-servers</pre> <p>Network::Interface::OpenVpn: "OpenVPN0": automatic name servers ▶ via tunnel are disabled.</p> | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>3.06</td> <td>The interface openvpn name-servers command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 3.06 | The interface openvpn name-servers command has been introduced. |
| Version | Description | | | | |
| 3.06 | The interface openvpn name-servers command has been introduced. | | | | |

3.29.152 interface peer

| Description | <p>Specify ID of the remote peer to which the PPP connection will be used. A more precise meaning of configuration depends on interface type. For example, for PPPoE the interface peer command specifies the name of access hub, for PPTP — remote host name or IP address, and for SSTP — specifies a remote server with port 443 or another.</p> <p>Command with no prefix cancels the setting.</p> | | | | | | |
|------------------------|--|--|-------|-------------|------|---------------|--|
| Prefix no | Yes | | | | | | |
| Change settings | Yes | | | | | | |
| Multiple input | No | | | | | | |
| Interface type | PPP | | | | | | |
| Synopsis | <pre>(config-if)> peer <peer></pre> <pre>(config-if)> no peer</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>peer</td> <td><i>String</i></td> <td>Remote connection point ID or remote server address <code>host.example.net:port</code>. By default, port number is 443.</td> </tr> </tbody> </table> | Argument | Value | Description | peer | <i>String</i> | Remote connection point ID or remote server address <code>host.example.net:port</code> . By default, port number is 443. |
| Argument | Value | Description | | | | | |
| peer | <i>String</i> | Remote connection point ID or remote server address <code>host.example.net:port</code> . By default, port number is 443. | | | | | |
| Example | <pre>(config-if)> peer 111</pre> <pre>(config-if)> peer host.example.net:5555</pre> | | | | | | |

History

| Version | Description |
|---------|--|
| 2.00 | The interface peer command has been introduced. |
| 2.12 | Added the ability to change the port of a remote server. |

3.29.153 interface peer-isolation**Description**

Enable the isolation of wireless clients in the Home segment. The setting applies on the Bridge interface and has an effect for all access points included in it. Also, it blocks traffic from wireless clients inside the L2 network.

Command with **no** prefix cancels the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Bridge

Synopsis

```
(config-if)> peer-isolation
```

```
(config-if)> no peer-isolation
```

Example

```
(config-if)> peer-isolation
Network::Interface::Ethernet: "Bridge0": peer isolation enabled.
```

```
(config-if)> no peer-isolation
Network::Interface::Ethernet: "Bridge0": peer isolation disabled.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface peer-isolation command has been introduced. |

3.29.154 interface ping-check profile**Description**

Assign *Ping Check* profile to the interface.

Command with **no** prefix cancels the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> ping-check profile <profile>
```

```
(config-if)> no ping-check profile
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------|
| profile | <i>String</i> | Profile name to assign. |

Example

```
(config-if)> ping-check profile test
PingCheck::Client: Set ping-check profile for interface "ISP".
```

```
(config-if)> no ping-check profile
PingCheck::Client: Reset ping-check profile for interface "ISP".
```

History

| Version | Description |
|---------|--|
| 2.04 | The interface ping-check profile command has been introduced. |

3.29.155 interface ping-check restart

Description

Enable interface restart if *Ping Check* is triggered (Internet is not available on interface). By default the function is disabled.

Command with **no** prefix disables the function.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> ping-check restart [ <interface> ]
```

```
(config-if)> no ping-check restart
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full name or alias of the interface to be restarted when the <i>Ping Check</i> on the binded interface is triggered. If this argument is not specified, the interface binded with <i>Ping Check</i> profile will be restarted. |

Example

```
(config-if)> ping-check restart
PingCheck::Client: Enabled "PPPoE0" interface restart.
```

```
(config-if)> ping-check restart ISP
PingCheck::Client: Enabled "ISP" interface restart for "PPPoE0".
```

```
(config-if)> no ping-check restart
PingCheck::Client: Remove restart settings for "PPPoE0".
```

History

| Version | Description |
|---------|--|
| 3.04 | The interface ping-check restart command has been introduced. |

3.29.156 interface pmf**Description**

Enable *PMF* functionality.

Command with **no** prefix disables the feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFi

Synopsis

```
(config-if)> pmf
```

```
(config-if)> no pmf
```

Example

```
(config-if)> pmf
Network::Interface::Rtx::WifiStation: "WifiMaster0/WifiStation0": ►
PMF enabled.
```

```
(config-if)> no pmf
Network::Interface::Rtx::WifiStation: "WifiMaster0/WifiStation0": ►
PMF disabled.
```

History

| Version | Description |
|---------|---|
| 2.09 | The interface pmf command has been introduced. |

3.29.157 interface pmksa-lifetime**Description**

Change the *PMK* cache lifetime. By default, the value 1440 is set.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> pmksa-lifetime <pmksa-lifetime>
```

| Argument | Value | Description |
|----------------|----------------|-----------------------------|
| pmksa-lifetime | <i>Integer</i> | Lifetime value, in minutes. |

Example

```
(config-if)> interface WifiMaster1 pmksa-lifetime 43200
Network::Interface::Mtk::WifiMaster: "WifiMaster1": PMKSA cache ►
lifetime updated.
```

| Version | Description |
|---------|--|
| 4.01 | The interface pmksa-lifetime command has been introduced. |

3.29.158 interface power

Description Set the transmitter power for the radio interface. Transmitter power is limited by the hardware capabilities and state laws applicable to radio broadcast. This command allows one to only reduce the power of the transmitter relative to its maximum power, such as to decrease potential interference with other devices in this range/band. By default, the setting value of the power is set to 100.

Prefix no No

Change settings Yes

Multiple input No

Interface type Radio

Synopsis

```
(config-if)> power <power>
```

| Argument | Value | Description |
|----------|----------------|---|
| power | <i>Integer</i> | The transmitter power as the percentage of the maximum power (from 1 to 100). |

Example

```
(config-if)> power 1
Network::Interface::Rtx::WifiMaster: "WifiMaster0": TX power ►
level set.
```

| Version | Description |
|---------|---|
| 2.00 | The interface power command has been introduced. |

3.29.159 interface pppoe service

Description Specify PPPoE service. If service is not defined, then PPPoE client will be connected to an arbitrary service.

| | |
|------------------------|-------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Interface type | PPPoE |

Synopsis

```
(config-if)> pppoe service <service>
(config-if)> no pppoe service
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------|
| service | <i>String</i> | Name of PPPoE service. |

Example

```
(config-if)> pppoe service TEST
Network::Interface::Pppoe: "PPPoE0": service set.
```

```
(config-if)> no pppoe service
Network::Interface::Pppoe: "PPPoE0": service removed.
```

History

| Version | Description |
|---------|---|
| 2.05 | The interface pppoe service command has been introduced. |

3.29.160 interface pppoe session auto-cleanup

Description Enable sending a PADT packet for the unfinished PPPoE session. By default the option is enabled.

Command with **no** prefix disables sending a PADT packet.

| | |
|------------------------|-------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Interface type | PPPoE |

Synopsis

```
(config-if)> pppoe session auto-cleanup
(config-if)> no pppoe session auto-cleanup
```

Example

```
(config-if)> pppoe session auto-cleanup
Network::Interface::Ppp: "PPPoE0": enabled session auto cleanup.
```

```
(config-if)> no pppoe session auto-cleanup
Network::Interface::Ppp: "PPPoE0": disabled session auto cleanup.
```

| History | Version | Description |
|---------|---------|--|
| | 3.03 | The interface pppoe session auto-cleanup command has been introduced. |

3.29.161 interface preamble-short

Description Use short *preamble*. By default, the setting is disabled.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Radio

Synopsis

```
(config-if)> preamble-short
(config-if)> no preamble-short
```

Example

```
(config-if)> preamble-short
Network::Interface::Rtx::WifiMaster: "WifiMaster0": short ►
preamble enabled.
```

```
(config-if)> no preamble-short
Network::Interface::Rtx::WifiMaster: "WifiMaster0": short ►
preamble disabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.00 | The interface preamble-short command has been introduced. |

3.29.162 interface proxy connect

Description Start the process of connecting to the proxy server. By default, connection is set via any interface.

Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Proxy

Synopsis

```
(config-if)> proxy connect [ via <via> ]
```

```
(config-if)> no proxy connect
```

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| via | <i>Interface</i> | Interface through which remote node is accessed. |

Example

```
(config-if)> proxy connect via WifiMaster1/WifiStation0
Proxy::Interface: "Proxy0": set connection via ►
WifiMaster1/WifiStation0.
```

```
(config-if)> no proxy connect
Proxy::Interface: "Proxy0": set connection via any interface.
```

History

| Version | Description |
|---------|---|
| 3.09 | The interface proxy connect command has been introduced. |

3.29.163 interface proxy protocol

Description

Set the connection protocol. By default, the http protocol and [TCP](#) connection is used for proxy server.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Proxy

Synopsis

```
(config-if)> proxy protocol <protocol>
```

```
(config-if)> no proxy protocol
```

Arguments

| Argument | Value | Description |
|----------|--------|--|
| protocol | socks5 | Use SOCKS5 protocol for connection. |
| | http | Use HTTP or HTTPS protocol for connection. |

Example

```
(config-if)> proxy protocol socks5
Proxy::Interface: "Proxy0": set proxy protocol to socks5.
```

```
(config-if)> no proxy protocol
Proxy::Interface: "Proxy0": reset proxy protocol.
```


| History | Version | Description |
|---------|---------|--|
| | 3.09 | The interface proxy protocol command has been introduced. |

3.29.164 interface proxy socks5-udp

Description Enable *UDP* mode for the *SOCKS5* protocol. By default, the *UDP* mode is disabled.

Command with **no** prefix disables the mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Proxy

Synopsis

```
(config-if)> proxy socks5-udp
(config-if)> no proxy socks5-udp
```

Example

```
(config-if)> proxy socks5-udp
Proxy::Interface: "Proxy0": enable SOCKS5 UDP mode.
```

```
(config-if)> no proxy socks5-udp
Proxy::Interface: "Proxy0": disable SOCKS5 UDP mode.
```

| History | Version | Description |
|---------|---------|--|
| | 4.1 | The interface proxy socks5-udp command has been introduced. |

3.29.165 interface proxy udpgw-upstream

Description Set proxy server for *UDP* connection.

Note: Command is available if the *SOCKS5* is the connection protocol.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Proxy

Synopsis

```
(config-if)> proxy udpgw-upstream <host> [ <port> ]
```

```
(config-if)> no proxy udpgw-upstream
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| host | <i>String</i> | IP-address or domain name of proxy server. |
| port | <i>Integer</i> | The <i>UDP</i> port of server. |

Example

```
(config-if)> proxy udpgw-upstream 202.150.93.130 8080
Proxy::Interface: "Proxy0": set proxy UDPGW upstream to ►
202.150.93.130:8080.
```

```
(config-if)> no proxy udpgw-upstream
Proxy::Interface: "Proxy0": cleared proxy UDPGW upstream.
```

History

| Version | Description |
|---------|--|
| 4.1 | The interface proxy udpgw-upstream command has been introduced. |

3.29.166 interface proxy upstream

Description

Set proxy server for connection.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Proxy

Synopsis

```
(config-if)> proxy upstream <host> [ <port> ]
```

```
(config-if)> no proxy upstream
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| host | <i>String</i> | IP-address or domain name of proxy server. |
| port | <i>Integer</i> | The server port. |

Example

```
(config-if)> proxy upstream 161.8.174.48 1080
Proxy::Interface: "Proxy0": set proxy upstream to ►
161.8.174.48:1080.
```

```
(config-if)> no proxy upstream
Proxy::Interface: "Proxy0": cleared proxy upstream.
```

History

| Version | Description |
|---------|--|
| 3.09 | The interface proxy upstream command has been introduced. |

3.29.167 interface reconnect-delay

Description Set the period of time between reconnection attempts. By default, value 3 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> reconnect-delay <sec>
```

```
(config-if)> no reconnect-delay
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| sec | <i>Integer</i> | Value of time in seconds. Can take values in the range from 3 to 600. |

Example

```
(config-if)> reconnect-delay 3
Network::Interface::Ppp: "PPTP1": reconnect delay set to 3 ►
seconds.
```

```
(config-if)> no reconnect-delay
Network::Interface::Ppp: "PPTP0": reconnect delay reset to ►
default.
```

History

| Version | Description |
|---------|---|
| 2.11 | The interface reconnect-delay command has been introduced. |

3.29.168 interface rekey-interval

Description Set the period of time between automatic changes of the secret keys, which all devices on the network share. By default, 86400 value is used.

Command with **no** prefix disables keys changing.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> rekey-interval <interval>
(config-if)> no rekey-interval
```

| Argument | Value | Description |
|----------|----------------|-------------------------------------|
| interval | <i>Integer</i> | Value of rekey interval in seconds. |

Example

```
(config-if)> rekey-interval 3000
Network::Interface::Rtx::WifiMaster: "WifiMaster0": rekey ►
interval is 3000 sec.
```

```
(config-if)> no rekey-interval
Network::Interface::Rtx::WifiMaster: "WifiMaster0": rekey ►
interval disabled.
```

| Version | Description |
|---------|--|
| 2.06 | The interface rekey-interval command has been introduced. |
| 2.15 | Added default value of rekey interval 3600 sec. |
| 3.04 | Default value of rekey interval is changed to 86400 sec. |

3.29.169 interface rename

Description Assign arbitrary name to the specified network interface. The interface can be referred to by the new name just like by ID.

Command with **no** prefix removes the setting.

Warning: Do not rename Home interface. This can cause unpredictable system errors.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> rename <rename>
```

```
(config-if)> no rename
```

Arguments

| Argument | Value | Description |
|----------|---------------|---------------------|
| rename | <i>String</i> | New interface name. |

Example

```
(config-if)> rename PPPoE1
Network::Interface::Base: "PPPoE0": renamed to "PPPoE1".
```

```
(config-if)> no rename
Network::Interface::Base: "PPPoE0": name cleared.
```

History

| Version | Description |
|---------|--|
| 2.08 | The interface rename command has been introduced. |

3.29.170 interface rf e2p set

Description Change the memory cell value of calibration data at *offset* by *value* for the specified interface.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis

```
(config-if) rf e2p set <offset> <value>
```

Arguments

| Argument | Value | Description |
|----------|------------|---|
| offset | <i>Hex</i> | Memory cell location. Can take values in the range from 1E0 to 1FE. |
| value | <i>Hex</i> | Value to be set. Can take values in the range from 0 to FFFF. |

Example

```
(config-if)> rf e2p set 1f6 0
Network::Interface::Rtx::WifiMaster: EEPROM [0x01F6]:0000 set.
```

History

| Version | Description |
|---------|--|
| 2.04 | The interface rf e2p set command has been introduced. |

3.29.171 interface role

Description Set a role for the interface. Multiple roles can be assigned to one interface. Command is used for correct view of VLAN connections in the web interface.

Command with **no** prefix removes the role. If you use no arguments, the entire list of roles will be removed.

Prefix no Yes

Change settings No

Multiple input Yes

Synopsis

```
(config-if)> role <role> [ for <ifor> ]
(config-if)> no role [ role ]
```

Arguments

| Argument | Value | Description |
|----------|-----------|---|
| role | inet | Interface is used for Internet connection. |
| | iptv | Interface is used for IPTV service. |
| | voip | Interface is used for VoIP service. |
| | misc | Interface is used for IP Policy . |
| ifor | Interface | Full interface name or an alias. |

Example

```
(config-if)> role iptv for GigabitEthernet1
Network::Interface::Base: "GigabitEthernet1": assigned role ▶
"iptv" for GigabitEthernet1.
```

```
(config-if)> no role iptv for GigabitEthernet1
Network::Interface::Base: "GigabitEthernet1": deleted role "iptv".
```

```
(config-if)> no role
Network::Interface::Base: "GigabitEthernet1": deleted all roles.
```

History

| Version | Description |
|---------|--|
| 2.06 | The interface role command has been introduced. |
| 2.10 | Argument <code>misc</code> was added. |

3.29.172 interface rrm

Description Enable [RRM](#) for search of nearby APs according to IEEE 802.11k standard in order to provide this AP list to the subscriber device by request. By default, the option is disabled.

Command with **no** prefix removes the setting.

| | |
|------------------------|-------------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Interface type | AccessPoint |

Synopsis

```
(config-if)> rrm
(config-if)> no rrm
```

Example

```
(config-if)> rrm
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
RRM enabled.

(config-if)> no rrm
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
RRM disabled.
```

History

| Version | Description |
|---------|---|
| 2.13 | The interface rrm command has been introduced. |

3.29.173 interface rssi-threshold

Description Set the RSSI signal strength threshold for the Access Point at which Wi-Fi clients will be disconnected and cannot connect to the Access Point. By default, the RSSI value 0 is used.

Command with **no** prefix resets setting to default.

| | |
|------------------------|-------------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Interface type | AccessPoint |

Synopsis

```
(config-if)> rssi-threshold <rssi-threshold>
(config-if)> no rssi-threshold
```

Arguments

| Argument | Value | Description |
|----------------|----------------|---|
| rssi-threshold | <i>Integer</i> | RSSI values in the range from -100 to 0. If value is set to 0, the setting is disabled. |

Example

```
(config-if)> rssi-threshold -30
Network::Interface::Mtk::AccessPoint: "WifiMaster0/AccessPoint0": ►
rssi threshold is set to -30.
```

```
(config-if)> no rssi-threshold
Network::Interface::Mtk::AccessPoint: "WifiMaster0/AccessPoint0": ►
rssi threshold reset to 0.
```

History

| Version | Description |
|---------|--|
| 4.01 | The interface rssi-threshold command has been introduced. |

3.29.174 interface schedule

Description

Assign a schedule to the interface. Schedule must be created and customized with **schedule action** command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> schedule <schedule>
```

```
(config-if)> no schedule
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---|
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(config-if)> schedule WIFI
Network::Interface::Base: "WifiMaster0": schedule is "WiFi".
```

```
(config-if)> no schedule
Network::Interface::Base: "WifiMaster0": schedule cleared.
```

History

| Version | Description |
|---------|--|
| 2.06 | The interface schedule command has been introduced. |

3.29.175 interface security-level

Description

Specify the interface security level. The security levels define the firewall logic:

- Allow establishing private → public connections.

- Prohibit establishing connections coming to the public interface, i. e. in the direction `public → private` and `public → public`.
- The device itself accepts network connections (allows control) only from private interfaces.
- Data transfer between private interfaces can be allowed or disallowed depending on the `isolate-private` global parameter.
- protected interfaces have no access to device and to other private/protected subnetworks, but they have access to public interfaces and to the internet. The device provides only DHCP and DNS services to the protected segments.
- Data transfer from private to protected interfaces is forbidden by default. To allow such connection use the `no isolate-private` command.

Note: By default, to all newly created interfaces public security level assigned.

Access lists `access-list` have higher priority than the security levels, so they can be used to set additional rules of packet filtering.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis `(config-if)> security-level (public | private | protected)`

Example Despite the fact that there is no functionality to disable the firewall completely, it is possible to disable it for particular directions. Suppose that it is necessary to allow data transfer between the “home” network Home and global network PPPoE0. To accomplish that, to both interfaces must be assigned private security level and function `isolate-private` must be disabled.

```
(config)> interface Home security-level private
Network::Interface::IP: "Bridge0": security level set to ►
"private".
```

```
(config)> interface PPPoE0 security-level private
Network::Interface::IP: "PPPoE0": security level set to "private".
```

```
(config)> no isolate-private
Netfilter::Manager: Private networks not isolated.
```

Note: The firewall and the address translation — are the functions designed to solve fundamentally different problems. Enabling NAT between Home and PPPoE0 interfaces in the

configuration shown above, does not prohibit access to the network Home from the global network. Even as the address translation is enabled by command **ip nat Home**, the packets from PPPoE0 will get to Home network.

History

| Version | Description |
|---------|--|
| 2.00 | The interface security-level command has been introduced. |
| 2.06 | The protected parameter was added. |

3.29.176 interface sim pin**Description**

Set PIN-code for SIM card.

Command with **no** prefix removes PIN-code.

Prefix no

Yes

Change settings

No

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> sim pin <pin>
```

```
(config-if)> no sim pin
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------------|
| pin | <i>String</i> | 4 to 8 digits PIN. |

Example

```
(config-if)> sim pin 0000  
Mobile::Interface: "UsbLte0": PIN code has been set.
```

```
(config-if)> no sim pin  
Mobile::Interface: "UsbLte0": PIN code has been reset.
```

History

| Version | Description |
|---------|---|
| 3.02 | The interface sim pin command has been introduced. |
| 4.00 | Prefix no was added. |

3.29.177 interface sim slot**Description**

Switch SIM-slot for QMI modem. By default, the 1 slot is set.

Command with **no** prefix resets setting to default.

| | |
|------------------------|-----|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Interface type | Usb |

Synopsis

```
(config-if)> sim slot <slot>
```

```
(config-if)> no sim slot
```

| Arguments | Argument | Value | Description |
|------------------|----------|-------|------------------|
| | slot | 1 | Set 1 or 2 slot. |
| | | 2 | |

Example

```
(config-if)> sim slot 2  
Mobile::Interface: "UsbQmi0": SIM slot is set to "2".
```

```
(config-if)> no sim slot  
Mobile::Interface: "UsbQmi0": SIM slot is reset to default.
```

| History | Version | Description |
|----------------|---------|--|
| | 3.08 | The interface sim slot command has been introduced. |

3.29.178 interface speed

Description

Configure the speed of the Ethernet interface. By default, auto value is set.

Command with **no** prefix resets setting to default.

| | |
|------------------------|----------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Interface type | Ethernet |

Synopsis

```
(config-if)> speed (10 | 100 | 1000 | auto)
```

```
(config-if)> no speed
```

| Arguments | Argument | Value | Description |
|------------------|----------|----------------|-----------------------------|
| | 10 | <i>Keyword</i> | Connection speed in Mbit/s. |
| | 100 | | |

| Argument | Value | Description |
|----------|----------------|----------------------------------|
| 1000 | | |
| auto | <i>Keyword</i> | Automatical speed configuration. |

Example

```
(config-if)> speed 1000
Network::Interface::Ethernet: "GigabitEthernet1/0": speed set ►
to 1000.
```

```
(config-if)> no speed
Network::Interface::Ethernet: "GigabitEthernet1/0": speed reset ►
to default (auto-negotiation).
```

History

| Version | Description |
|----------|---|
| 2.06.B.1 | The interface speed command has been introduced. |

3.29.179 interface speed nonegotiate

Description

Disable autonegotiation. By default, autonegotiation is enabled.

Command with **no** prefix enables autonegotiation.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-if)> speed nonegotiate
```

```
(config-if)> no speed nonegotiate
```

Example

```
(config-if)> speed nonegotiate
Network::Interface::Ethernet: "GigabitEthernet1/0": ►
autonegotiation will be disabled for fixed speed.
```

```
(config-if)> no speed nonegotiate
Network::Interface::Ethernet: "GigabitEthernet1/0": ►
autonegotiation enabled..
```

History

| Version | Description |
|---------|---|
| 2.08 | The interface speed nonegotiate command has been introduced. |

3.29.180 interface ssid

Description Specify the wireless network name (SSID) for `WiFiStation` and `AccessPoint` interfaces. Depending on the interface type, the SSID value is processed differently.

- For `AccessPoint`, the SSID is a necessary setting, without which the connection will not be accepted.
- For the `WiFiStation` SSID determines which access point `WiFiStation` will connect to. Without a specified SSID, `WiFiStation` can connect to any available wireless network at its discretion.

Command with **no** prefix resets network name to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> ssid <ssid>
```

```
(config-if)> no ssid
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------------|
| ssid | <i>String</i> | Wireless Network Name (SSID). |

Example

```
(config-if)> ssid MYNETWORK
Network::Interface::Wireless: "WifiMaster0/AccessPoint0": SSID ►
saved.
```

```
(config-if)> no ssid
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
SSID reset.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface ssid command has been introduced. |

3.29.181 interface standby enable

Description Enable the standby mode. When the standby mode is enabled for an interface, it is automatically turned off when another WAN connection with a higher global priority is up and running.

The standby option is ignored in following cases:

- the global priority is not configured;
- the standby interface is included in a group, such as Bridge;
- the current WAN connection operates over the standby interface.

Command with **no** prefix disables the standby mode.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> standby enable
(config-if)> no standby enable
```

Example

```
(config-if)> standby enable
Network::Interface::Standby: "CdcEthernet0": enabled.

(config-if)> no standby enable
Network::Interface::Standby: "CdcEthernet0": disabled.
```

History

| Version | Description |
|---------|--|
| 4.00 | The interface standby enable command has been introduced. |

3.29.182 interface storm-control disable

Description Enable the broadcast storm control on the Bridge interface. By default, the setting is enabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Bridge

Synopsis

```
(config-if)> storm-control disable
(config-if)> no storm-control disable
```

Example

```
(config-if)> storm-control disable
Network::Interface::Bridge: "Bridge0": disabled storm control and loop detector.
```

```
(config-if)> no storm-control disable
Network::Interface::Bridge: "Bridge0": enabled storm control and ►
loop detector.
```

History

| Version | Description |
|---------|---|
| 4.00 | The interface storm-control disable command has been introduced. |

3.29.183 interface switchport access

Description Set the port [VLAN](#) ID for access mode. Allows to transfer frames of the specified [VLAN](#) to the port and remove [VLAN](#) marker from the transferred frames.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Port

Synopsis

```
(config-if)> switchport access vlan <vid>
```

```
(config-if)> no switchport access vlan
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| vid | <i>Integer</i> | Access VLAN ID. Can take values in the range from 1 to 4094 inclusively. |

Example

```
(config-if)> switchport access vlan 1
Network::Interface::Switch: "FastEthernet0/0": set access VLAN ►
ID: 1.
```

History

| Version | Description |
|---------|---|
| 2.06 | The interface switchport access command has been introduced. |

3.29.184 interface switchport friend

Description Configure unidirectional [VLAN](#) for multicast traffic in addition to access [VLAN](#). Port can be a member of one access [VLAN](#). This command enables forwarding of downstream traffic from a different [VLAN](#) (called "friend"). Friend packets are transmitted without a tag.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Port

Synopsis

```
(config-if)> switchport friend vlan <vid>
```

```
(config-if)> no switchport friend vlan
```

| Argument | Value | Description |
|----------|----------------|---|
| vid | <i>Integer</i> | Friend <i>VLAN</i> ID. Can take values in the range from 1 to 4094 inclusively. |

Example

```
(config-if)> switchport friend vlan 2
```

```
Network::Interface::Switch: "FastEthernet0/0": set friend VLAN ID: 2.
```

| Version | Description |
|---------|---|
| 2.06 | The interface switchport friend command has been introduced. |

3.29.185 interface switchport mode

Description Set access or trunk mode for *VLAN*. By default, access mode is set.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Port

Synopsis

```
(config-if)> switchport mode [ (access [q-in-q]) | trunk]
```

```
(config-if)> no switchport mode
```

| Argument | Value | Description |
|----------|--------|---|
| mode | access | Enable the access mode to a <i>VLAN</i> , that is the mode when only the untagged frames pass through the port. The incoming frames get |

| Argument | Value | Description |
|----------|----------------|--|
| | | tagged with the PVID marker, which is set with switchport access command. The port is an output one only for <i>VLAN</i> with PVID ID. Once a frame is transferred to the port, the <i>VLAN</i> marker gets removed. |
| | trunk | Enable the <i>VLAN</i> trunk mode, that is the mode when frames belonging to several VLANs get transmitted through the port. In this case each frame gets tagged. The list of IDs of <i>VLAN</i> networks that include the port is set with switchport trunk command. |
| q-in-q | <i>Keyword</i> | Enable double tagging. |

Example

```
(config-if)> switchport mode access
Network::Interface::Switch: "FastEthernet0/1": access mode ►
enabled.
```

History

| Version | Description |
|---------|---|
| 2.06 | The interface switchport mode command has been introduced. |

3.29.186 interface switchport trunk

Description

Add a port to the *VLAN*. Allows receiving and transmitting of the given *VLAN* frames to the port, such that VLAN marker from the transmitted frames is not removed. In the trunk mode it is allowed to add a port to several VLANs.

Command with **no** prefix removes the port from the specified *VLAN*. If you use no argument, the port will be removed from all the VLANs.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Port

Synopsis

```
(config-if)> switchport trunk vlan <vid>
```

```
(config-if)> no switchport trunk vlan [ vid ]
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| vid | <i>Integer</i> | <i>VLAN</i> ID. Can take values in the range from 1 to 4094 inclusively. |

Example

```
(config-if)> switchport trunk vlan 100
Network::Interface::Switch: "FastEthernet0/1": set trunk VLAN ►
ID: 100.
```

History

| Version | Description |
|---------|--|
| 2.06 | The interface switchport trunk command has been introduced. |

3.29.187 interface traffic-counter action disconnect

Description

Disconnect from the provider when the traffic limit is reached.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> traffic-counter action <trigger> disconnect
```

Arguments

| Argument | Value | Description |
|----------|-------|---|
| trigger | limit | Disconnection trigger on a limit traffic. |

Example

```
(config-if)> traffic-counter action limit disconnect
UsbQmi::TrafficCounter: "UsbQmi0": set disconnect action for ►
trigger "limit".
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface traffic-counter action disconnect command has been introduced. |

3.29.188 interface traffic-counter action sms-alert message

Description

Set [SMS](#) alert message.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> traffic-counter action <trigger> sms-alert message
<message>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| trigger | threshold | SMS alerting trigger is a threshold. |
| | limit | SMS alerting trigger is a traffic limit. |
| message | <i>String</i> | SMS alerting message. |

Example

```
(config-if)> traffic-counter action threshold sms-alert message ►
TEXT
UsbQmi::TrafficCounter: "UsbQmi0": set message for trigger ►
"threshold".
```

History

| Version | Description |
|---------|--|
| 3.06 | The interface traffic-counter action sms-alert message command has been introduced. |

3.29.189 interface traffic-counter action sms-alert phone

Description

Set phone numbers for *SMS* alerting.

Prefix no

No

Change settings

Yes

Multiple input

Yes

Interface type

Usb

Synopsis

```
(config-if)> traffic-counter action <trigger> sms-alert phone <phone>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| trigger | threshold | SMS alerting trigger is a threshold. |
| | limit | SMS alerting trigger is a traffic limit. |
| phone | <i>String</i> | Phone number for SMS alerting. Up to three phone numbers can be set. |

Example

```
(config-if)> traffic-counter action threshold sms-alert phone ►
+71112223344
UsbQmi::TrafficCounter: "UsbQmi0": add phone number ►
"+71112223344" for action "threshold".
```

History

| Version | Description |
|---------|--|
| 3.06 | The interface traffic-counter action sms-alert phone command has been introduced. |

3.29.190 interface traffic-counter enable**Description**

Enable the mobile traffic counter. By default, setting is disabled.

Command with **no** prefix disables the mobile traffic counter.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> traffic-counter enable
```

```
(config-if)> no traffic-counter enable
```

Example

```
(config-if)> traffic-counter enable  
UsbQmi::TrafficCounter: "UsbQmi0": enabled.
```

```
(config-if)> no traffic-counter enable  
UsbQmi::TrafficCounter: "UsbQmi0": disabled.
```

History

| Version | Description |
|---------|--|
| 3.06 | The interface traffic-counter enable command has been introduced. |

3.29.191 interface traffic-counter limit**Description**

Set the traffic counter limit in megabytes, gigabytes or terabytes.

Command with **no** prefix resets configuration.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> traffic-counter limit <value> <unit>
```

```
(config-if)> no traffic-counter limit
```

| Argument | Value | Description |
|----------|----------------|---|
| value | <i>Integer</i> | Limit traffic value. |
| unit | <i>String</i> | Limit value units: MB, GB, TB, MiB, GiB, TiB. |

Example

```
(config-if)> traffic-counter limit 4 TB
UsbQmi::TrafficCounter: "UsbQmi0": set limit to 4 TB.
```

```
(config-if)> no traffic-counter limit
UsbQmi::TrafficCounter: "UsbQmi0": reset limit.
```

| Version | Description |
|---------|---|
| 3.06 | The interface traffic-counter limit command has been introduced. |

3.29.192 interface traffic-counter monthly

Description Set the day of the month to restart the traffic counter.

Command with **no** prefix resets configuration.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

```
(config-if)> traffic-counter monthly <day-of-month>
```

```
(config-if)> no traffic-counter monthly
```

| Argument | Value | Description |
|--------------|----------------|---|
| day-of-month | <i>Integer</i> | The day of the month from 1 to 31 to restart the traffic counter. |

Example

```
(config-if)> traffic-counter monthly 31
UsbQmi::TrafficCounter: "UsbQmi0": set day of month to "31".
```

```
(config-if)> no traffic-counter monthly
UsbQmi::TrafficCounter: "UsbQmi0": reset day of month.
```

| Version | Description |
|---------|---|
| 3.06 | The interface traffic-counter monthly command has been introduced. |

3.29.193 interface traffic-counter set

Description Set the current value of the traffic counter.

Prefix no No

Change settings Yes

Multiple input No

Interface type Usb

Synopsis `(config-if)> traffic-counter set <value> <unit>`

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| value | <i>Integer</i> | Numeric counter value (either integer or floating point). |
| unit | <i>String</i> | Limit value units: MB, GB, TB, MiB, GiB, TiB. |

Example

```
(config-if)> traffic-counter set 1.54 GB
UsbQmi::TrafficCounter: "UsbQmi0": set value to 1.54 GB.
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface traffic-counter set command has been introduced. |

3.29.194 interface traffic-counter threshold

Description Set the traffic counter warning threshold.

Command with **no** prefix resets configuration.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis `(config-if)> traffic-counter threshold <threshold>`

`(config-if)> no traffic-counter threshold`

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| threshold | <i>Integer</i> | Threshold value as a percentage of the limit. Can take values from 1 to 99 percent. |

Example

```
(config-if)> traffic-counter threshold 99
UsbQmi::TrafficCounter: "UsbQmi0": set treshold to 99 percent ►
of the limit.
```

```
(config-if)> no traffic-counter threshold
UsbQmi::TrafficCounter: "UsbQmi0": reset threshold.
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface traffic-counter threshold command has been introduced. |

3.29.195 interface traffic-shape

Description Set the limit of data rate on a specified interface in both directions. By default speed is not limited.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> traffic-shape rate <rate> [ asymmetric <upstream-rate> ]
[ schedule <schedule> ]
```

```
(config-if)> no traffic-shape
```

Arguments

| Argument | Value | Description |
|---------------|-----------------|--|
| rate | <i>Integer</i> | Value of data download rate in Kbps. Limit could be in the range from 64 Kbps to 1 Gbps. |
| upstream-rate | <i>Integer</i> | Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps. |
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(config-if)> traffic-shape rate 5000
TrafficControl::Manager: "Bridge0" interface rate limited to ►
5000 kbit/s.
```

```
(config-if)> traffic-shape rate 5000 asymmetric 500
TrafficControl::Manager: "Bridge0" interface rate limited to ►
5000/500 kbit/s.
```

```
(config-if)> no traffic-shape
TrafficControl::Manager: Rate limit removed for "Bridge0" ►
interface.
```

History

| Version | Description |
|---------|---|
| 2.05 | The interface traffic-shape command has been introduced. |
| 3.04 | The upstream-rate argument was added. |

3.29.196 interface tty init

Description Add initialization string at specified position `index` for RAS (UsbModem), NDIS (UsbLte), QMI (UsbQmi) modems.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

```
(config-if)> tty init [ <index> ] <string> [ sleep <delay> ]
```

```
(config-if)> no tty init [ <index> ]
```

Arguments

| Argument | Value | Description |
|---------------------|----------------|--|
| <code>index</code> | <i>Integer</i> | Position, the line number where you want to insert a string. |
| <code>string</code> | <i>String</i> | Modem initialization string. |
| <code>delay</code> | <i>Integer</i> | Modem delay value in seconds. |

Example

```
(config-if)> tty init AT^SYSCFG=14,2,3fffffff,0,1  
Mobile::Interface: "UsbQmi0": initialization string inserted.
```

```
(config-if)> tty init AT^SYSCFG=14,2,3fffffff,0,1 sleep 1  
Mobile::Interface: "UsbQmi0": initialization string inserted.
```

```
(config-if)> no tty init  
Mobile::Interface: "UsbQmi0": initialization strings erased.
```

History

| Version | Description |
|---------|--|
| 4.00 | The interface tty init command has been introduced. |

3.29.197 interface tty send

Description Send AT command to UsbLte, UsbQmi modems.

| | |
|------------------------|-----|
| Prefix no | No |
| Change settings | Yes |
| Multiple input | No |
| Interface type | Usb |

Synopsis `(config-if)> tty send <command> [<expect>] [<timeout>]`

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| command | <i>String</i> | AT command. |
| expect | <i>String</i> | Expected response. Default response is OK ERROR. |
| timeout | <i>Integer</i> | Time to wait in seconds. Default value is 3. |

Example

```
(config-if)> tty send ATI
".Built@Aug 23 2019:16:28:33"
OK
```

```
Mobile::Interface: "UsbLte0": got expected response.
```

```
(config-if)> tty send ATI OK|ERROR 2
".Built@Aug 23 2019:16:28:33"
OK
```

```
Mobile::Interface: "UsbLte0": got expected response.
```

```
(config-if)> tty send ATI OKEY 2
".Built@Aug 23 2019:16:28:33"
OK
```

```
Mobile::Interface error[73140786]: "UsbLte0": timeout waiting ▶
for expected response.
```

History

| Version | Description |
|---------|--|
| 3.09 | The interface tty send command has been introduced. |

3.29.198 interface tunnel destination

Description Set the remote end of tunnel. If it is used in conjunction with an automatic [IPSec](#) connection associated with the tunnel, remote host becomes the initiator of an [IPSec](#) connection.

Command with **no** prefix resets the setting.

| | |
|------------------------|-----|
| Prefix no | Yes |
| Change settings | Yes |

Multiple input No**Interface type** Tunnel

Synopsis

```
(config-if)> tunnel destination <destination>
```

```
(config-if)> no tunnel destination
```

Arguments

| Argument | Value | Description |
|-------------|---------------|---|
| destination | <i>String</i> | IP address or domain name of the remote host. |

Example

```
(config-if)> tunnel destination example.net  
Network::Interface::Tunnel: "Gre0": destination set to ►  
example.net.
```

```
(config-if)> no tunnel destination  
Network::Interface::Tunnel: "Gre0": destination was reset.
```

History

| Version | Description |
|---------|--|
| 2.08 | The interface tunnel destination command has been introduced. |

3.29.199 interface tunnel eoip id

Description Set identifier of EoIP tunnel.Command with **no** prefix resets the setting.**Prefix no** Yes**Change settings** Yes**Multiple input** No**Interface type** Eoip

Synopsis

```
(config-if)> tunnel eoip id <id>
```

```
(config-if)> no tunnel eoip id
```

Arguments

| Argument | Value | Description |
|----------|----------------|-------------|
| id | <i>Integer</i> | Tunnel ID. |

Example

```
(config-if)> tunnel eoip id 50  
Network::Interface::Tunnel: "Gre0": eoip id interface set to auto.
```

```
(config-if)> no tunnel eoip id
Network::Interface::Tunnel: "Gre0": eoip id was reset.
```

History

| Version | Description |
|---------|--|
| 2.08 | The interface tunnel eoip id command has been introduced. |

3.29.200 interface tunnel gre keepalive

Description Enable support of Cisco-like keepalive for GRE tunnel. By default, interval is set to 5, count is set to 3.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Tunnel

Synopsis

```
(config-if)> tunnel gre keepalive <interval> [count]
(config-if)> no tunnel gre keepalive
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| interval | <i>Integer</i> | The interval of sending keepalive packets in seconds. Can take values in the range from 0 to 60. If 0 is set, then GRE keepalive replies is enabled only and the router will not react on the tunnel state change. |
| count | <i>Integer</i> | Number of attempts to send keepalive packets. Can take values in the range from 1 to 20. |

Example

```
(config-if)> tunnel gre keepalive 10 7
Network::Interface::Gre: "Gre0": set GRE keepalive to 10 s (7 ►
retries).
```

```
(config-if)> no tunnel gre keepalive
Network::Interface::Gre: "Gre0": disable GRE keepalive.
```

```
(config-if)> tunnel gre keepalive 0
Network::Interface::Gre: "Gre0": enable only GRE keepalive ►
replies.
```

History

| Version | Description |
|---------|--|
| 2.10 | The interface tunnel gre keepalive command has been introduced. |

3.29.201 interface tunnel source

Description

Set the local end of tunnel. If it is used in conjunction with an automatic *IPSec* connection associated with the tunnel, then the reception mode of IPsec IKE connections is activated to establish a secure tunnel.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

Tunnel

Synopsis

```
(config-if)> tunnel source (auto | <interface> | <address>)
```

Arguments

| Argument | Value | Description |
|-----------|-------------------|--|
| auto | <i>Keyword</i> | Set the current working WAN interface. |
| interface | <i>Interface</i> | Full interface name or an alias. |
| address | <i>IP address</i> | Local IP-address of the tunnel. |

Example

```
(config-if)> tunnel source auto  
Network::Interface::Tunnel: "Gre0": set source interface to auto.
```

History

| Version | Description |
|---------|---|
| 2.08 | The interface tunnel source command has been introduced. |
| 2.09 | The auto argument has been added. |
| 3.08 | The no prefix was removed as obsolete. |

3.29.202 interface tx-burst

Description

Enable Wi-Fi packet aggregation (Tx Burst). By default, the setting is disabled. Command with **no** prefix disables the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> tx-burst
```

```
(config-if)> no tx-burst
```

Example

```
(config-if)> tx-burst
Network::Interface::Rtx::WifiMaster: Tx Burst enabled.
```

History

| Version | Description |
|---------|--|
| 2.07 | The interface tx-burst command has been introduced. |

3.29.203 interface tx-queue length

Description

Set the size of the queue of outgoing packets on the interface. By default, 1000 value is set.

Command with **no** prefix resets to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> tx-queue length <length>
```

```
(config-if)> no tx-queue length
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| length | <i>Integer</i> | Queue length can take values in the range from 0 to 65536. |

Example

```
(config-if)> tx-queue length 255
Network::Interface::Base: "L2TP0": TX queue length is 255.
```

```
(config-if)> no tx-queue length
Network::Interface::Base: "L2TP0": TX queue length reset to ►
default.
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface tx-queue length command has been introduced. |

3.29.204 interface tx-queue scheduler cake

Description Set the [CAKE](#) package scheduler for the interface. By default, the value `cake` is used for DSL and USB-modem interfaces, `fq_codel` — for all others.

Command with **no** prefix resets the scheduler to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis `(config-if)> tx-queue scheduler cake`

`(config-if)> no tx-queue scheduler cake`

Example `(config-if)> tx-queue scheduler cake`
 Network::Interface::Base: "L2TP0": set TX queue scheduler to ►
 "cake".

`(config-if)> no tx-queue scheduler cake`
 Network::Interface::Base: "L2TP0": set default TX queue scheduler.

History

| Version | Description |
|---------|---|
| 3.06 | The interface tx-queue scheduler cake command has been introduced. |

3.29.205 interface tx-queue scheduler fq_codel

Description Set the [FQ_CODEL](#) package scheduler for the interface. By default, the value `cake` is used for DSL and USB-modem interfaces, `fq_codel` — for all others.

Command with **no** prefix resets the scheduler to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis `(config-if)> tx-queue scheduler fq_codel`

`(config-if)> no tx-queue scheduler fq_codel`

Example `(config-if)> tx-queue scheduler fq_codel`
 Network::Interface::Base: "L2TP0": set TX queue scheduler to ►
 "fq_codel".

```
(config-if)> no tx-queue scheduler fq_codel
Network::Interface::Base: "L2TP0": set default TX queue scheduler.
```

History

| Version | Description |
|---------|---|
| 3.06 | The interface tx-queue scheduler fq_codel command has been introduced. |

3.29.206 interface up**Description**

Enable the network interface and persist the state “up” to the settings.

Command with **no** prefix disables the the network interface and deletes “up” from settings. Also **interface down** command can be used.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> up
```

```
(config-if)> no up
```

Example

```
(config-if)> up
Interface enabled.
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface up command has been introduced. |

3.29.207 interface usb acq**Description**

Lock 3G/LTE mode for Huawei USB-modems.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> usb acq <acq>
```

```
(config-if)> no usb acq
```

Arguments

| Argument | Value | Description |
|----------|-------|-------------|
| acq | gsm | 2G network. |
| | umts | 3G network. |
| | lte | 4G network. |

Example

```
(config-if)> usb acq lte
Network::Interface::Usb: "UsbLte0": ACQ saved.
```

```
(config-if)> no usb acq
Network::Interface::Usb: "UsbLte0": ACQ cleared.
```

History

| Version | Description |
|---------|---|
| 2.09 | The interface usb acq command has been introduced. |

3.29.208 interface usb apn

Description

Set access point name (APN) for USB-modems in NDIS mode. Modem reboots after applying the command.

Command with **no** prefix resets the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> usb apn <apn>
```

```
(config-if)> no usb apn
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------------|
| apn | <i>String</i> | Access point name. |

Example

```
(config-if)> usb apn example.net
Network::Interface::Usb: "UsbModem0": APN saved.
```

```
(config-if)> no usb apn
Network::Interface::Usb: "UsbModem0": APN cleared.
```

History

| Version | Description |
|---------|---|
| 2.05 | The interface usb apn command has been introduced. |

3.29.209 interface usb device-id

Description Assign vendor and model ID to the UsbModem interface. It is necessary for modem and interface binding.

If there is an interface UsbModem[N] with the appropriate DeviceID, then automatic binding is occur. If there is no such interface, it will be created automatically with the appropriate DeviceID.

Command with **no** prefix deletes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

```
(config-if)> usb device-id <vendor> <model>
```

```
(config-if)> no usb device-id
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------|
| vendor | <i>String</i> | Vendor info. |
| model | <i>String</i> | Model info. |

Example

```
(config-if)> usb device-id 12d1 1001  
Device ID saved.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface usb device-id command has been introduced. |

3.29.210 interface usb port-id

Description Bind of RAS (UsbModem), CdcEthernet, NDIS (UsbLte), QMI (UsbQmi) modems interface to USB port identifier.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

```
(config-if)> usb port-id (<port> | auto)
```

```
(config-if)> no usb port-id
```

Arguments

| Argument | Value | Description |
|----------|----------------|--------------------------|
| port | <i>String</i> | USB port identifier. |
| auto | <i>Keyword</i> | Auto USB port selection. |

Example

```
(config-if)> usb port-id 1  
Network::Interface::Usb: "CdcEthernet0": port ID is set to "1".
```

```
(config-if)> usb port-id auto  
Network::Interface::Usb: "CdcEthernet0": port ID is automatically  
set to "2/4".
```

```
(config-if)> no usb port-id  
Network::Interface::Usb: "CdcEthernet0": port ID removed.
```

History

| Version | Description |
|---------|---|
| 4.01 | The interface usb port-id command has been introduced. |

3.29.211 interface usb power-cycle

Description

Turn off power on the usb-modem for a specified period of time. This function is used to hardware reset usb-modem in case of freezing.

Prefix no

No

Change settings

No

Multiple input

No

Interface type

Usb

Synopsis

```
(config-if)> usb power-cycle <pause>
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| pause | <i>Integer</i> | Period of time in which usb-modem will be disabled, in milliseconds. |

Example

```
(config-if)> usb power-cycle 3000  
Network::Interface::Usb: "UsbLte0": started 3000 ms. power cycle.
```

| History | Version | Description |
|---------|---------|---|
| | 2.03 | The interface usb power-cycle command has been introduced. |

3.29.212 interface usb power-fail

Description Specify further actions in case the usb-modem power-off did not help.

Prefix no No

Change settings Yes

Multiple input No

Interface type Usb

Synopsis `(config-if)> usb power-fail <interval> (retry <pause> | reboot)`

| Arguments | Argument | Value | Description |
|-----------|----------|----------------|--|
| | interval | <i>Integer</i> | Time to wait for modem detection after its power reset, in seconds. Can take values in the range from 0 to 60 inclusively. |
| | pause | <i>Integer</i> | Period of time in which usb-modem will be disabled, in seconds. Can take values in the range from 0 to 60 inclusively. |
| | reboot | <i>Keyword</i> | Reboot of the entire system. |

Example `(config-if)> usb power-fail 60 reboot`
 Network::Interface::Usb: "YotaOne1": enabled power fail action: ► reboot.

| History | Version | Description |
|---------|---------|--|
| | 2.10 | The interface usb power-fail command has been introduced. |

3.29.213 interface usb wwan-force-connected

Description Disable CDC-modem link polling via HTTP. By default, the feature is disabled.

Command with **no** prefix disables the function.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb**Synopsis**

```
(config-if)> usb wwan-force-connected
```

```
(config-if)> no usb wwan-force-connected
```

Example

```
(config-if)> usb wwan-force-connected
Network::Interface::Usb: "UsbLte0": force WWAN link status.
```

```
(config-if)> no usb wwan-force-connected
Network::Interface::Usb: "UsbLte0": unforce WWAN link status.
```

History

| Version | Description |
|---------|--|
| 2.12 | The interface wwan-force-connected command has been introduced. |

3.29.214 interface vga-clamp

DescriptionEnable [VGA](#) technology adjustment. By default, adjustment is disabled.Command with **no** prefix removes the setting.**Prefix no**

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> vga-clamp <vga-clamp>
```

```
(config-if)> no vga-clamp
```

Arguments

| Argument | Value | Description |
|-----------|----------------|--|
| vga-clamp | <i>Integer</i> | The value of correction. Can take values in the range from 1 to 8 inclusively. |

Example

```
(config-if)> vga-clamp 1
Network::Interface::Rtx::WifiMaster: "WifiMaster0": VGA clamp ►
set to 1.
```

```
(config-if)> no vga-clamp
Network::Interface::Rtx::WifiMaster: "WifiMaster0": VGA clamp ►
disabled.
```

```
(config-if)> vga-clamp 2
Network::Interface::Rtx::WifiMaster: "WifiMaster1": VGA clamp ►
set to 2.
```

```
(config-if)> no vga-clamp
Network::Interface::Rtx::WifiMaster: "WifiMaster1": VGA clamp ►
disabled.
```

History

| Version | Description |
|---------|---|
| 2.09 | The interface vga-clamp command has been introduced. |

3.29.215 interface web-api address

Description Set the IP address to access the modem's web interface connected to the router.

Command with **no** prefix deletes the address.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

```
(config-if)> web-api address <address>
(config-if)> no web-api address
```

Arguments

| Argument | Value | Description |
|----------|------------|----------------------------|
| address | IP-address | The web interface address. |

Example

```
(config-if)> web-api address 192.168.8.1
Mobile::Interface: "CdcEthernet0": WEB address is set.
```

```
(config-if)> no web-api address
Mobile::Interface: "CdcEthernet0": WEB address cleared.
```

History

| Version | Description |
|---------|---|
| 3.08 | The interface web-api address command has been introduced. |

3.29.216 interface web-api login

Description Specify the user name to access the modem's web interface connected to the router.

Command with **no** prefix deletes the user name.

Prefix no Yes

Change settings Yes**Multiple input** No**Interface type** Usb

Synopsis

```
(config-if)> web-api login <login>
```

```
(config-if)> no web-api login
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| login | <i>String</i> | User name for authentication. Maximum user name length is 64 characters. |

Example

```
(config-if)> web-api login myadmin  
Mobile::Interface: "CdcEthernet0": WEB login is set.
```

```
(config-if)> no web-api login  
Mobile::Interface: "CdcEthernet0": WEB login cleared.
```

History

| Version | Description |
|---------|---|
| 3.08 | The interface web-api login command has been introduced. |

3.29.217 interface web-api password

Description Set a password to access the modem's web interface connected to the router. Command with **no** prefix deletes the password.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Usb

Synopsis

```
(config-if)> web-api password <password>
```

```
(config-if)> no web-api password
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| password | <i>String</i> | The password for authentication. Maximum password length is 64 characters. |

Example

```
(config-if)> web-api password 12345678910  
Mobile::Interface: "CdcEthernet0": WEB password is set.
```

```
(config-if)> no web-api password
Mobile::Interface: "CdcEthernet0": WEB password cleared.
```

History

| Version | Description |
|---------|--|
| 3.08 | The interface web-api password command has been introduced. |

3.29.218 interface wireguard listen-port

Description Specify [UDP](#) port number to which incoming connections are accepted. By default, port number is not defined.

Command with **no** prefix resets the port.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Wireguard

Synopsis

```
(config-if)> wireguard listen-port <port>
(config-if)> no wireguard listen-port
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| port | <i>Integer</i> | Port number. Can take values in the range from 1 to 65535 inclusively. |

Example

```
(config-if)> wireguard listen-port 11633
Wireguard::Interface: "Wireguard4": set listen port to "11633".
```

```
(config-if)> no wireguard listen-port
Wireguard::Interface: "Wireguard4": reset listen port.
```

History

| Version | Description |
|---------|---|
| 3.03 | The interface wireguard listen-port command has been introduced. |

3.29.219 interface wireguard peer

Description Add the remote peer public key to configure the secure connection using the [WireGuard](#) protocol.

Command with **no** prefix removes specified key.

| | |
|------------------------|------------------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | Yes |
| Interface type | Wireguard |
| Group entry | (config-wg-peer) |

Synopsis

```
(config-if)> wireguard peer <key>
```

```
(config-if)> no wireguard peer <key>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| key | <i>String</i> | Value of the key. Latin letters, numbers and equal signs are acceptable. The key length is 44 characters (Base64-encoded 32-byte string representation). |

Example

```
(config-if)> wireguard peer ►
gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm0g=
(config-wg-peer)>
```

```
(config-if)> no wireguard peer ►
gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm0g=
Wireguard::Interface: "Wireguard4": removed peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm0g=" .
```

History

| Version | Description |
|---------|--|
| 3.03 | The interface wireguard peer command has been introduced. |

3.29.219.1 interface wireguard peer allow-ips

Description Add the subnet of IP addresses to which the transmission of packets inside the tunnel is allowed.

Note: You can add 0.0.0.0/0 subnet to allow transmission to any addresses.

Command with **no** prefix removes the subnet. If you use no argument, the entire list of subnets will be removed.

| | |
|------------------------|-----------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | Yes |
| Interface type | Wireguard |

Synopsis

```
(config-wg-peer)> allow-ips <address> <mask>
```

```
(config-wg-peer)> no allow-ips [ <address> <mask> ]
```

Arguments

| Argument | Value | Description |
|----------|------------|---|
| address | IP address | Together with mask <i>mask</i> sets the subnet of IP addresses to be translated. |
| mask | IP-mask | Mask of subnet. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |

Example

```
(config-wg-peer)> allow-ips 0.0.0.0/0
```

```
Wireguard::Interface: "Wireguard4": add allowed IPs ▶  
"0.0.0.0/0.0.0.0" from peer ▶  
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

```
(config-wg-peer)> allow-ips 192.168.11.0 255.255.255.0
```

```
Wireguard::Interface: "Wireguard4": add allowed IPs ▶  
"192.168.11.0/255.255.255.0" from peer ▶  
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

```
(config-wg-peer)> no allow-ips
```

```
Wireguard::Interface: "Wireguard4": clear allowed IPs of peer ▶  
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

History

| Version | Description |
|---------|--|
| 3.03 | The interface wireguard peer allow-ips command has been introduced. |

3.29.219.2 interface wireguard peer connect**Description**

Set interface for WireGuard peer connection. By default, connection is set via any interface.

Command with **no** prefix resets value to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WireGuard

Synopsis

```
(config-wg-peer)> connect via <via>
```

```
(config-wg-peer)> no connect
```

Arguments

| Argument | Value | Description |
|----------|------------------|----------------------------------|
| via | <i>Interface</i> | Full interface name or an alias. |

Example

```
(config-wg-peer)> connect via ISP
Wireguard::Interface: "Wireguard0": set peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byP0zK/MAI67VmXs=" connect via "ISP"
```

```
(config-wg-peer)> no connect
Wireguard::Interface: "Wireguard0": disabled peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byP0zK/MAI67VmXs=".
```

History

| Version | Description |
|---------|--|
| 4.01 | The interface wireguard peer connect command has been introduced. |

3.29.219.3 interface wireguard peer endpoint**Description**

Set the remote peer address to which the *WireGuard* connection will be established.

Command with **no** prefix removes the endpoint.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Wireguard

Synopsis

```
(config-wg-peer)> endpoint <address> [:<port>]
```

```
(config-wg-peer)> no endpoint
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | IP address or domain name of the server. |
| port | <i>Integer</i> | The <i>UDP</i> server port. |

Example

```
(config-wg-peer)> endpoint 10.0.1.10:11635
Wireguard::Interface: "Wireguard4": set peer ►
"gbplgW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=" endpoint to ►
"10.0.1.10:11635".
```

```
(config-wg-peer)> no endpoint
Wireguard::Interface: "Wireguard4": reset endpoint for peer ►
"gbplgW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

| History | Version | Description |
|---------|---------|---|
| | 3.03 | The interface wireguard peer endpoint command has been introduced. |

3.29.219.4 interface wireguard peer keepalive-interval

Description Set the interval of keepalive packet sending for *WireGuard* connection monitoring. By default, the interval is not set.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Wireguard

Synopsis

```
(config-wg-peer)> keepalive-interval <interval>
(config-wg-peer)> no keepalive-interval
```

| Arguments | Argument | Value | Description |
|-----------|----------|----------------|---|
| | interval | <i>Integer</i> | The interval of keepalive packet sending in seconds. Can take values in the range from 3 to 3600 inclusively. |

Example

```
(config-wg-peer)> keepalive-interval 3
Wireguard::Interface: "Wireguard4": set peer ▶
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=" keepalive interval ▶
to "3".

(config-wg-peer)> no keepalive-interval
Wireguard::Interface: "Wireguard4": reset persistent keepalive ▶
interval for peer "gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

| History | Version | Description |
|---------|---------|---|
| | 3.03 | The interface wireguard peer keepalive-interval command has been introduced. |

3.29.219.5 interface wireguard peer preshared-key

Description Set preshared key for *WireGuard* connection to remote peer. The preshared key (PSK) is an optional security improvement as per the *WireGuard* protocol and should be a unique PSK per client for highest security. By default, PSK is not used.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Wireguard

Synopsis

```
(config-wg-peer)> preshared-key <pre-shared-key>
(config-wg-peer)> no preshared-key
```

| Argument | Value | Description |
|---------------|---------------|---|
| preshared-key | <i>String</i> | Secret PSK key value. Latin letters, numbers and equal signs are acceptable. The key length is 44 characters. |

Example

```
(config-wg-peer)> preshared-key ►
WY2fkhJZuDCbYew7L8whBMzkReVf8KKzWJrmaR79F8z=
Wireguard::Interface: "Wireguard4": set preshared key for peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=" .

(config-wg-peer)> no preshared-key
Wireguard::Interface: "Wireguard4": reset preshared key for peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=" .
```

| Version | Description |
|---------|--|
| 3.03 | The interface wireguard peer preshared-key command has been introduced. |

3.29.220 interface wireguard private-key

Description Set or generate the private key to connect to the remote peers via [WireGuard](#) protocol. By default, private key is not configured.

Prefix no No

Change settings No

Multiple input No

Interface type Wireguard

Synopsis

```
(config-if)> wireguard private-key [ <private-key> ]
```

| Argument | Value | Description |
|-------------|---------------|--|
| private-key | <i>String</i> | A new private key value. Latin letters, numbers and equal signs are acceptable. The key length is 44 characters. |

Example

```
(config-if)> wireguard private-key
Wireguard::Interface: "Wireguard4": generated new private key.

(config-if)> wireguard private-key ▶
UshaeghezaiJ7reo8iK6ear0eomujohkeen8jahX5uo=
Wireguard::Interface: "Wireguard4": set private key.
```

| Version | Description |
|---------|---|
| 3.03 | The interface wireguard private-key command has been introduced. |

3.29.221 interface wmm

Description Enable *WMM* on the interface.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Access Point

Synopsis

```
(config-if)> wmm
(config-if)> no wmm
```

Example

```
(config-if)> wmm
WMM extensions enabled.
```

| Version | Description |
|---------|---|
| 2.00 | The interface wmm command has been introduced. |

3.29.222 interface wpa-eap radius secret

Description Specify the shared secret for secure communication between a *RADIUS* server and a *RADIUS* client.

Command with **no** prefix deletes the shared secret.

Prefix no Yes

Change settings Yes**Multiple input** No**Interface type** Bridge

Synopsis

```
(config-if)> wpa-eap radius secret <secret>
(config-if)> no wpa-eap radius secret
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| secret | <i>String</i> | The value of <i>RADIUS</i> shared secret. Maximum key length is 64 characters. |

Example

```
(config-if)> wpa-eap radius secret ►
(+>R#G`}-JNxru'i8i|LK}wBN9E^X0Xa{xFOG-N^%FaTnr|S(e(q$/LP2/tbX/#Q
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS secret applied.
```

```
(config-if)> no wpa-eap radius secret
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS secret cleared.
```

History

| Version | Description |
|---------|---|
| 3.01 | The interface wpa-eap radius secret command has been introduced. |

3.29.223 interface wpa-eap radius server

Description Specify *RADIUS* server address.
Command with **no** prefix deletes the address.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Bridge

Synopsis

```
(config-if)> wpa-eap radius server <address> [:<port>]
(config-if)> no wpa-eap radius server
```

Arguments

| Argument | Value | Description |
|----------|-------------------|----------------------------------|
| address | <i>IP address</i> | <i>RADIUS</i> server IP address. |
| port | <i>Integer</i> | <i>RADIUS</i> server port. |

Example

```
(config-if)> wpa-eap radius server 192.168.10.10
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server set to ►
192.168.10.10.

(config-if)> wpa-eap radius server 192.168.10.10:1111
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server set to ►
192.168.10.10:1111.

(config-if)> no wpa-eap radius server
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server cleared.
```

History

| Version | Description |
|---------|---|
| 3.01 | The interface wpa-eap radius server command has been introduced. |

3.29.224 interface wps

Description Enable [WPS](#) functionality.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> wps
(config-if)> no wps
```

Example

```
(config-if)> wps
WPS functionality enabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The interface wps command has been introduced. |

3.29.225 interface wps auto-self-pin

Description Enable [WPS](#) auto-self-pin mode. By default auto-self-pin mode is enabled. Command with **no** prefix disables this mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> wps auto-self-pin
```

```
(config-if)> no wps auto-self-pin
```

Example

```
(config-if)> wps auto-self-pin
```

Network::Interface::Rtx::Wps: an auto self PIN mode enabled.

History

| Version | Description |
|---------|---|
| 2.04 | The interface wps auto-self-pin command has been introduced. |

3.29.226 interface wps button

Description Start WPS process using a software button. Process takes 2 minutes or until the first connection occurred.

Prefix no No**Change settings** No**Multiple input** No**Interface type** WiFi

Synopsis

```
(config-if)> wps button <direction>
```

Arguments

| Argument | Value | Description |
|-----------|---------|--|
| direction | send | Send WiFi configuration. |
| | receive | Receive WiFi configuration from Carrier. |

Example

```
(config-if)> wps button send
```

Sending WiFi configuration process started (software button mode).

History

| Version | Description |
|---------|--|
| 2.00 | The interface wps button command has been introduced. |

3.29.227 interface wps peer

Description Start WPS process using remote peer's PIN. Process takes 2 minutes or until the first connection occurred. By default, WPS PIN is disabled.

Prefix no No

| | |
|------------------------|------|
| Change settings | No |
| Multiple input | No |
| Interface type | WiFi |

Synopsis | (config-if)> **wps peer** *<direction>* *<pin>*

Arguments

| Argument | Value | Description |
|-----------|---------------|--|
| direction | send | Send WiFi configuration. |
| | receive | Receive WiFi configuration from the remote peer. |
| pin | <i>String</i> | PIN code of the remote peer. |

Example

```
(config-if)> wps peer send 53794141
Network::Interface::Rtx::Wps: "WifiMaster0/AccessPoint0": peer ►
PIN WPS session started.
```

History

| Version | Description |
|---------|--|
| 2.04 | The interface wps peer command has been introduced. |

3.29.228 interface wps self-pin

Description Start WPS process using self PIN. Process takes 2 minutes or until the first connection occur.

Prefix no No

Change settings No

Multiple input No

Interface type WiFi

Synopsis | (config-if)> **wps self-pin** *<direction>*

Arguments

| Argument | Value | Description |
|-----------|---------|--|
| direction | send | Send WiFi configuration. |
| | receive | Receive WiFi configuration from Carrier. |

Example

```
(config-if)> wps self-pin receive
Receiving WiFi configuration process started (self PIN mode).
```

History

| Version | Description |
|---------|--|
| 2.00 | The interface wps self-pin command has been introduced. |

3.29.229 interface zerotier accept-addresses

Description Enable address accepting from the [ZeroTier](#) server.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type ZeroTier

Synopsis | (config-if)> **zerotier accept-addresses**

| (config-if)> **no zerotier accept-addresses**

Example

```
(config-if)> zerotier accept-addresses
ZeroTier::Interface: "ZeroTier0": enabled addresses accept.
```

```
(config-if)> no zerotier accept-addresses
ZeroTier::Interface: "ZeroTier0": disabled addresses accept.
```

History

| Version | Description |
|---------|---|
| 4.01 | The interface zerotier accept-addresses command has been introduced. |

3.29.230 interface zerotier accept-routes

Description Enable receiving routes from a remote side via [ZeroTier](#).

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type ZeroTier

Synopsis | (config-if)> **zerotier accept-routes**

| (config-if)> **no zerotier accept-routes**

Example

```
(config-if)> zerotier accept-routes
ZeroTier::Interface: "ZeroTier0": enabled routes accept.
```

```
(config-if)> no zerotier accept-routes
ZeroTier::Interface: "ZeroTier0": disabled routes accept.
```

| Version | Description |
|---------|--|
| 4.01 | The interface zerotier accept-routes command has been introduced. |

3.29.231 interface zerotier connect

Description Set interface for *ZeroTier* connection. If you use no argument, connection is set via any interface.

Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type ZeroTier

Synopsis

```
(config-if)> zerotier connect [ via <via> ]
```

```
(config-if)> no zerotier connect
```

| Argument | Value | Description |
|----------|------------------|----------------------------------|
| via | <i>Interface</i> | Full interface name or an alias. |

Example

```
(config-if)> zerotier connect via ISP
ZeroTier::Interface: "ZeroTier0": set connection via ISP.
```

```
(config-if)> no zerotier connect
ZeroTier::Interface: "ZeroTier0": set connection via any ►
interface.
```

| Version | Description |
|---------|--|
| 4.01 | The interface zerotier connect command has been introduced. |

3.29.232 interface zerotier network-id

Description Set identifier of *ZeroTier* tunnel.

Command with **no** prefix resets the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type ZeroTier

Synopsis

```
(config-if)> zerotier network-id <network-id>
(config-if)> no zerotier network-id
```

Arguments

| Argument | Value | Description |
|------------|--------|-------------|
| network-id | String | Tunnel ID. |

Example

```
(config-if)> zerotier network-id 816227940c13c37e
ZeroTier::Interface: "ZeroTier0": set network ID to ►
"816227940c13c37e".
```

```
(config-if)> no zerotier network-id
ZeroTier::Interface: "ZeroTier0": reset network ID.
```

History

| Version | Description |
|---------|---|
| 4.01 | The interface zerotier network-id command has been introduced. |

3.30 ip arp

Description

Set static mapping between an IP address and a MAC address for hosts that do not support dynamic [ARP](#).

Command with **no** prefix removes entry from ARP table. If you use no arguments, the whole list of ARP entries will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ip arp <ip> <mac>
(config)> no ip arp [ <ip> ]
```

Arguments

| Argument | Value | Description |
|----------|--------------------|---|
| ip | <i>IP address</i> | IP address in four-part dotted decimal format corresponding to the local data-link address. |
| mac | <i>MAC address</i> | MAC address as six groups of two hexadecimal digits separated by colons. |

Example

```
(config)> ip arp 192.168.2.50 a1:2e:84:85:f4:21
Network::ArpTable: Static ARP entry saved.
```

```
(config)> no ip arp 192.168.2.50
Network::ArpTable: Static ARP entry deleted for 192.168.2.50.
```

```
(config)> no ip arp
Network::ArpTable: Static ARP table cleared.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip arp command has been introduced. |

3.31 ip dhcp class

Description

Access to a group of commands to configure [DHCP](#) vendor class (option 60). If specified class name is not found, the command tries to create it.

Command with **no** prefix removes selected class.

Prefix no

Yes

Change settings

No

Multiple input

Yes

Group entry

(config-dhcp-class)

Synopsis

```
(config)> ip dhcp class <class>
```

```
(config)> no ip dhcp class <class>
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------|
| class | <i>String</i> | The vendor-class name. |

Example

```
(config)> ip dhcp class STB-0ne
Dhcp::Server: Vendor class "STB-0ne" has been created.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ip dhcp class command has been introduced. |

3.31.1 ip dhcp class option

Description Set an option 60 to match the vendor-class.
Command with **no** prefix removes selected option.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dhcp-class)> option <number> hex <data>
(config-dhcp-class)> no option <number>
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| number | <i>Integer</i> | Option number. Now the only 60 value is used. |
| data | <i>String</i> | Value of an option. |

Example

```
(config-dhcp-class)> option 60 hex FF
Dhcp::Server: Option 60 is set to FF.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip dhcp class option command has been introduced. |

3.32 ip dhcp host

Description Configure static linking of IP address to MAC address of the host. If the host with the specified name is not found, the command tries to create it. If the specified IP address is not in range of any pool, the command will remain in the settings, but will not affect the *DHCP server* functioning.

The command allows one to change the MAC address, leaving the old value IP address and vice versa — to change the IP address, leaving the old MAC address value intact.

Command with **no** prefix removes the host.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ip dhcp host <host> [ mac ] [ ip ]
```

```
(config)> no ip dhcp host <host>
```

Arguments

| Argument | Value | Description |
|----------|--------------------|---|
| host | <i>String</i> | Arbitrary host name, used to identify a MAC-IP pair in the settings. |
| mac | <i>MAC address</i> | MAC address of the host for static linking of IP address. If not specified, the value is taken from the previous configuration. |
| ip | <i>IP address</i> | IP address of the host. If not specified, the value is taken from the previous configuration. |

Example

```
(config)> ip dhcp host HOST 192.168.1.44
new host "HOST" has been created.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip dhcp host command has been introduced. |

3.33 ip dhcp pool

Description

Access to a group of commands to configure DHCP-pool. If the pool is not found, the command tries to create it. For a pool one sets a list of DNS servers (**dns-server** command), default gateway (**default-router** command) and the lease time (**lease** command), as well as a range of dynamic IP addresses (**range** command).

Having configured the pool, it is necessary to enable the *DHCP* service using the **service dhcp** command.

You can enter up to 32 pools. Maximum pool name length is 32 characters.

Note: In the current version of the system no more than one pool per interface is supported. For *DHCP server* to function correctly it is required that the range of IP addresses set by **range** command belong to the network that is configured on one of the device's Ethernet-interfaces.

Command with **no** prefix removes the pool.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-dhcp-pool)

Synopsis

```
(config)> ip dhcp pool <name>
```

```
(config)> no ip dhcp pool <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|-----------------|
| name | <i>String</i> | DHCP pool name. |

Example

```
(config)> ip dhcp pool test_pool
pool "test_pool" has been created.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip dhcp pool command has been introduced. |

3.33.1 ip dhcp pool bind

Description Bind the pool to specified interface.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-dhcp-pool)> bind <interface>
```

```
(config-dhcp-pool)> no bind <interface>
```

Arguments

| Argument | Value | Description |
|-----------|------------------|----------------------------------|
| interface | <i>Interface</i> | Full interface name or an alias. |

Example

```
(config-dhcp-pool)> bind FastEthernet0/Vlan2
pool "test_pool" bound to interface FastEthernet0/Vlan2.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ip dhcp pool bind command has been introduced. |

3.33.2 ip dhcp pool bootfile

Description Set boot file path on TFTP server for DHCP client (option 67).

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes**Multiple input** No**Interface type** Ethernet

Synopsis

```
(config-dhcp-pool)> bootfile <bootfile>
```

```
(config-dhcp-pool)> no bootfile
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---------------------|
| bootfile | <i>Filename</i> | The boot file path. |

Example

```
(config-dhcp-pool)> bootfile test.cnf
```

```
Dhcp::Pool: "_WEBADMIN": set bootfile option to "test.cnf".
```

```
(config-dhcp-pool)> no bootfile
```

```
Dhcp::Pool: "_WEBADMIN": cleared bootfile option.
```

History

| Version | Description |
|---------|---|
| 2.11 | The ip dhcp pool bootfile command has been introduced. |

3.33.3 ip dhcp pool class

Description

Access to a group of commands to configure *DHCP* vendor class for selected pool. If specified class name is not found, the command tries to create it.

To work correctly class name should be the same as for **ip dhcp class** command.

Command with **no** prefix removes selected class.

Prefix no Yes**Change settings** Yes**Multiple input** Yes**Group entry** (config-dhcp-pool-class)

Synopsis

```
(config-dhcp-pool)> class <class>
```

```
(config-dhcp-pool)> no class <class>
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------|
| class | <i>String</i> | The vendor-class name. |

Example

```
(config-dhcp-pool)> class STB-One
Dhcp::Server: Vendor class "STB-One" has been created.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip dhcp pool class command has been introduced. |

3.33.3.1 ip dhcp pool class option**Description**

Set additional options for *DHCP* client in case of vendor-class matching.
Command with **no** prefix removes selected option.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-dhcp-pool-class)> option <number> <type> <data>
```

```
(config-dhcp-pool-class)> no option <number>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| number | 6 | 6 option, DNS server. |
| | 42 | 42 option, NTP server. |
| | 43 | 43 option, vendor specific information. |
| type | ip | Type of data is IP address. This type is not used for 43 option. |
| | hex | Type of data is hexadecimal number. |
| data | <i>String</i> | Value of an option. |

Example

```
(config-dhcp-pool-class)> option 6 ip 192.168.1.1
Dhcp::Server: Option 6 is set to 192.168.1.1.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ip dhcp pool class option command has been introduced. |

3.33.4 ip dhcp pool debug**Description**

Add debug messages to the system log. By default, the setting is disabled.
Command with **no** prefix disables debugging.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> debug
(config-dhcp-pool)> no debug
```

| Version | Description |
|---------|--|
| 2.01 | The ip dhcp pool debug command has been introduced. |

3.33.5 ip dhcp pool default-router

Description Configure default gateway IP address. If not specified, the address of the Ethernet-interface determined automatically for a given range **range** will be used.

Command with **no** prefix cancels the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> default-router <address>
(config-dhcp-pool)> no default-router
```

| Argument | Value | Description |
|----------|-------------------|--------------------------|
| address | <i>IP address</i> | Default gateway address. |

Example

```
(config-dhcp-pool)> default-router 192.168.1.88
pool "test_pool" router address has been saved.
```

| Version | Description |
|---------|---|
| 2.00 | The ip dhcp pool default-router command has been introduced. |

3.33.6 ip dhcp pool dns-server

Description Configure IP addresses of the DNS servers (DHCP option 6). If not specified, the address of the Ethernet-interface determined automatically for a given range **range** will be used.

Command with **no** prefix cancels the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> dns-server (<address1> [ <address2> ] | disable)
(config-dhcp-pool)> no dns-server
```

Arguments

| Argument | Value | Description |
|----------|-------------------|----------------------------------|
| address1 | <i>IP address</i> | Address of primary DNS server. |
| address2 | <i>IP address</i> | Address of secondary DNS server. |
| disable | <i>Keyword</i> | Disable DHCP option 6. |

Example

```
(config-dhcp-pool)> dns-server 192.168.1.88
pool "test_pool" name server list has been saved.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ip dhcp pool dns-server command has been introduced. |
| 2.11 | Disable argument has been added. |

3.33.7 ip dhcp pool domain

Description Specify the domain name that client should use when resolving hostnames via DNS (option 15).

Command with **no** prefix cancels the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> domain <domain>
(config-dhcp-pool)> no domain
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------------|
| domain | <i>String</i> | Local domain name. |

Example (config-dhcp-pool)> **domain example.net**
Dhcp::Pool: Domain option has been saved.

| Version | Description |
|---------|---|
| 2.05 | The ip dhcp pool domain command has been introduced. |

3.33.8 ip dhcp pool enable

Description Start to use the pool in the system.
Command with **no** prefix disables pool using.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> enable
(config-dhcp-pool)> no enable
```

Example (config-dhcp-pool)> **enable**
Dhcp::Server: pool "111" is enabled.

| Version | Description |
|---------|---|
| 2.03 | The ip dhcp pool enable command has been introduced. |

3.33.9 ip dhcp pool lease

Description Set the lease time of DHCP pool IP address. By default, 25200 value is used (7 hours).

Command with **no** prefix resets lease time to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> lease <lease>
(config-dhcp-pool)> no lease
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| lease | <i>Integer</i> | Lease time in seconds. Can take values in the range from 1 to 259200 seconds (3 days). |

Example

```
(config-dhcp-pool)> lease 259200
Dhcp::Pool: "_WEBADMIN": set lease time: 259200 seconds.
```

```
(config-dhcp-pool)> no lease
Dhcp::Pool: "_WEBADMIN": lease time reset to default (25200 seconds).
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip dhcp pool lease command has been introduced. |

3.33.10 ip dhcp pool next-server

Description

Set TFTP server address for DHCP client (option 66).

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-dhcp-pool)> next-server <address>
```

```
(config-dhcp-pool)> no next-server
```

Arguments

| Argument | Value | Description |
|----------|-------------------|----------------------|
| address | <i>IP address</i> | TFTP server address. |

Example

```
(config-dhcp-pool)> next-server 10.1.1.11
Dhcp::Pool: "_WEBADMIN": set next server address: 10.1.1.11.
```

```
(config-dhcp-pool)> no next-server
Dhcp::Pool: "_WEBADMIN": cleared next server address.
```

History

| Version | Description |
|---------|--|
| 2.11 | The ip dhcp pool next-server command has been introduced. |

3.33.11 ip dhcp pool option

Description Set additional options for DHCP server.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Ethernet

Synopsis

```
(config-dhcp-pool)> option <number> [ type ] <data>
(config-dhcp-pool)> no option <number>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| number | 4 | 4 option, Time server. Type is IP address. |
| | 6 | 6 option, DNS server. Type is IP address. |
| | 42 | 42 option, NTP server. Type is IP address. |
| | 44 | 44 option, NetBIOS server. Type is IP address. |
| | 26 | 26 option, MTU. Can take values in the range from 0 to 65535 inclusively. |
| | 121 | 121 option, Classless Static Routes. Type is IP address of the destination network and mask of the destination network the form of prefix bit length (for example, /24). |
| | 249 | 249 option, Microsoft Classless Static Routes. Type is IP address of the destination network and mask of the destination network the form of prefix bit length (for example, /24). |
| type | hex | Hexadecimal number. |
| | ascii | ASCII number. |
| | ip | IP address. It is not applicable to 26 option. It is not specified as a keyword in the command. |
| data | <i>String</i> | Value of an option. |

Example

```
(config-dhcp-pool)> option 4 192.168.2.1
Dhcp::Pool: "_WEBADMIN_BRIDGE2": set option 4.
```

```
(config-dhcp-pool)> option 60 ascii "MSFT 5.0"
Dhcp::Pool: "_WEBADMIN_BRIDGE2": set option 60.
```

```
(config-dhcp-pool)> option 150 ip 41.57.50.46,42.54.50.46
Dhcp::Pool: "_WEBADMIN_BRIDGE2": set option 150.
```

```
(config-dhcp-pool)> no option 4
Dhcp::Pool: "_WEBADMIN_BRIDGE2": cleared option 4.
```

History

| Version | Description |
|---------|---|
| 2.09 | The ip dhcp pool option command has been introduced. |

3.33.12 ip dhcp pool range

Description

Configure the range of dynamic addresses issued to DHCP clients of a subnet. The range is set by start and end IP addresses or the start address and size. The network interface to which the settings are applied is chosen automatically. Address of the chosen interface is used as the default gateway and DNS server, if other addresses are not specified using commands **ip dhcp pool default-router** and **ip dhcp pool dns-server**.

Command with **no** prefix removes the range.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dhcp-pool)> range <begin> (<end> | <size>)
```

```
(config-dhcp-pool)> no range
```

Arguments

| Argument | Value | Description |
|----------|-------------------|-----------------------|
| begin | <i>IP address</i> | Pool's start address. |
| end | <i>IP address</i> | Pool's end address. |
| size | <i>Integer</i> | Pool size. |

Example

```
(config-dhcp-pool)> range 192.168.15.43 3
pool "_WEBADMIN" range has been saved.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip dhcp pool range command has been introduced. |

3.33.13 ip dhcp pool update-dns

Description

Add static records into DNS-proxy when DHCP-address is assigned. The name of record is the hostname of the DHCP-request. By default, the feature is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> update-dns
(config-dhcp-pool)> no update-dns
```

Example

```
(config-dhcp-pool)> update-dns
Dhcp::Pool: DNS update has been enabled.
```

| History | Version | Description |
|---------|---------|---|
| | 2.06 | The ip dhcp pool update-dns command has been introduced. |

3.33.14 ip dhcp pool wpad

Description Configure DHCP option 252 — [WPAD](#) protocol. By default, the option is disabled.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> wpad <wpad>
(config-dhcp-pool)> no wpad
```

| Arguments | Argument | Value | Description |
|-----------|----------|--------|---------------|
| | wpad | String | URL of proxy. |

Example

```
(config-dhcp-pool)> wpad http://wpad/wpad.dat
Dhcp::Pool: WPAD option has been saved.
```

| History | Version | Description |
|---------|---------|---|
| | 2.05 | The ip dhcp pool wpad command has been introduced. |

3.34 ip dhcp relay lan

Description Specify which network interface the DHCP relay will use to handle client's requests. Several "lan" interfaces can be specified, to which end the command should be entered several times, enumerating all desired interfaces one by one.

Command with **no** prefix disables the DHCP relay on the specified interface. If you use no argument, the DHCP relay will be removed from all interfaces.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ip dhcp relay lan <interface>
(config)> no ip dhcp relay lan [ interface ]
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full name or an alias of Ethernet interface, through which DHCP relay will accept requests from clients. |

Example

```
(config)> ip dhcp relay lan Home
added LAN interface Home.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ip dhcp relay lan command has been introduced. |

3.35 ip dhcp relay server

Description Specify the IP address of the *DHCP server*, to which the relay will forward client requests from the LAN.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip dhcp relay server <address>
(config)> no ip dhcp relay server [ address ]
```

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | IP address of the <i>DHCP server</i> . |

Example

```
(config)> ip dhcp relay server 192.168.1.11
using DHCP server 192.168.1.11.
```

| Version | Description |
|---------|--|
| 2.00 | The ip dhcp relay server command has been introduced. |

3.36 ip dhcp relay wan

Description Specify the network interface through which DHCP relay will interact with higher level *DHCP server*. There can be only one interface of such type in the system. If exact address of the server is not specified (see **ip dhcp relay server**), the requests will be broadcasted. It is recommended to specify server address.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip dhcp relay wan <interface>
(config)> no ip dhcp relay wan [ interface ]
```

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full name or an alias of Ethernet interface, on which requests from the DHCP clients will be sent. |

Example

```
(config)> ip dhcp relay wan FastEthernet0/Vlan2
using WAN interface FastEthernet0/Vlan2.
```

| Version | Description |
|---------|---|
| 2.00 | The ip dhcp relay wan command has been introduced. |

3.37 ip esp alg enable

Description Enable *IPsec Passthrough* mode for *IPsec ESP* tunnel. By default, the setting is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip esp alg enable
(config)> no ip esp alg enable
```

Example

```
(config)> ip esp alg enable
Esp::Alg: Enabled.
```

```
(config)> no ip esp alg enable
Esp::Alg: Disabled.
```

History

| Version | Description |
|---------|---|
| 3.05 | The ip esp alg enable command has been introduced. |

3.38 ip flow-cache timeout active

Description Set timeout of active sessions in cache. By default, the value 10 is used.

Command with **no** prefix resets the setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip flow-cache timeout active <timeout>
(config)> no ip flow-cache timeout active
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| timeout | <i>Integer</i> | The timeout value, in minutes. Can take values in the range from 1 to 30. |

Example

```
(config)> ip flow-cache timeout active 1
Netflow::Manager: Active timeout set to "1" min.
```

```
(config)> no ip flow-cache timeout active
Netflow::Manager: Active timeout reset to "10" min.
```

| History | Version | Description |
|---------|---------|--|
| | 2.11 | The ip flow-cache timeout active command has been introduced. |

3.39 ip flow-cache timeout inactive

Description Set timeout of inactive sessions in cache. By default, the value 20 is used.

Command with **no** prefix resets the setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip flow-cache timeout inactive <timeout>
```

```
(config)> no ip flow-cache timeout inactive
```

| Arguments | Argument | Value | Description |
|-----------|----------|----------------|--|
| | timeout | <i>Integer</i> | The timeout value, in seconds. Can take values in the range from 1 to 600. |

Example

```
(config)> ip flow-cache timeout inactive 1
Netflow::Manager: Inactive timeout set to "1" s.
```

```
(config)> no ip flow-cache timeout inactive
Netflow::Manager: Inactive timeout reset to "20" s.
```

| History | Version | Description |
|---------|---------|--|
| | 2.11 | The ip flow-cache timeout inactive command has been introduced. |

3.40 ip flow-export destination

Description Set parameters of *NetFlow* collector.

Command with **no** prefix removes collector's parameters.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip flow-export destination <address> <port>
```

```
(config)> no ip flow-export destination
```

Arguments

| Argument | Value | Description |
|----------|------------|--|
| address | IP address | IP address of the data collector. |
| port | Integer | Collector's UDP port number. Can take values 2055, 2056, 4432, 4739, 9025, 9026, 9995, 9996, 6343. |

Example

```
(config)> ip flow-export destination 192.168.101.31 4739
Netflow::Manager: Export destination is set to ►
192.168.101.31:4739.
```

```
(config)> no ip flow-export destination
Netflow::Manager: Export destination is unset.
```

History

| Version | Description |
|---------|--|
| 2.11 | The ip flow-export destination command has been introduced. |

3.41 ip flow-export version

Description

Set version of *NetFlow* collector. By default, 5 value is used.

Command with **no** prefix resets version to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> ip flow-export version <version>
```

```
(config)> no ip flow-export version
```

Arguments

| Argument | Value | Description |
|----------|--------|----------------------|
| version | String | Version of protocol. |

Example

```
(config)> ip flow-export version 9
Netflow::Manager: Set export protocol version to 9.
```

```
(config)> no ip flow-export version
Netflow::Manager: Reset export version to 5.
```

| History | Version | Description |
|---------|---------|--|
| | 3.05 | The ip flow-export version command has been introduced. |

3.42 ip ftp

Description Access to a group of commands to configure access to **ftp**.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Group entry (config-ftp)

Synopsis (config)> **ip ftp**

Example (config)> **ip ftp**
(config-ftp)>

| History | Version | Description |
|---------|---------|--|
| | 2.08 | The ip ftp command has been introduced. |

3.42.1 ip ftp client-charset

Description Set default encoding on FTP server. By default, the UTF-8 is used.

Command with **no** prefix resets encoding to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config-ftp)> **client-charset** *<charset>*

(config-ftp)> **no client-charset**

| Arguments | Argument | Value | Description |
|-----------|----------|--------|----------------|
| | charset | utf-8 | Encoding type. |
| | | utf-16 | |

| Argument | Value | Description |
|----------|-------------|-------------|
| | utf-16le | |
| | utf-16be | |
| | utf-32 | |
| | utf-32le | |
| | utf-32be | |
| | iso-8859-1 | |
| | iso-8859-2 | |
| | iso-8859-3 | |
| | iso-8859-4 | |
| | iso-8859-5 | |
| | iso-8859-6 | |
| | iso-8859-7 | |
| | iso-8859-8 | |
| | iso-8859-9 | |
| | iso-8859-10 | |
| | iso-8859-11 | |
| | iso-8859-12 | |
| | iso-8859-13 | |
| | iso-8859-14 | |
| | iso-8859-15 | |
| | iso-8859-16 | |
| | cp-037 | |
| | cp-424 | |
| | cp-437 | |
| | cp-500 | |
| | cp-737 | |
| | cp-775 | |
| | cp-850 | |
| | cp-852 | |
| | cp-852 | |
| | cp-855 | |
| | cp-856 | |
| | cp-857 | |
| | cp-860 | |
| | cp-861 | |

| Argument | Value | Description |
|----------|---------------|-------------|
| | cp-862 | |
| | cp-863 | |
| | cp-864 | |
| | cp-865 | |
| | cp-866 | |
| | cp-869 | |
| | cp-874 | |
| | cp-1026 | |
| | cp-1250 | |
| | cp-1251 | |
| | cp-1252 | |
| | cp-1253 | |
| | cp-1254 | |
| | cp-1255 | |
| | cp-1256 | |
| | cp-1257 | |
| | cp-1258 | |
| | koi8-r | |
| | koi8-u | |
| | kz-1048 | |
| | nextstep | |
| | mac-celtic | |
| | mac-centeuro | |
| | mac-croatian | |
| | mac-cyrillic | |
| | mac-gaelic | |
| | mac-greek | |
| | mac-icelandic | |
| | mac-inuit | |
| | mac-roman | |
| | mac-romanian | |
| | mac-turkish | |
| | mac-ukrainian | |

Example

```
(config-ftp)> client-charset utf-16
Ftp::Server: Set client charset to "utf-16".
```

```
(config-ftp)> no client-charset
Ftp::Server: Reset client charset to default.
```

History

| Version | Description |
|---------|---|
| 2.11 | The ip ftp client-charset command has been introduced. |

3.42.2 ip ftp lockout-policy

Description

Set FTP server bruteforce detection parameters for public interfaces. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-ftp)> lockout-policy <threshold> [ <duration> [
<observation-window> ] ]
```

```
(config-ftp)> no lockout-policy
```

Arguments

| Argument | Value | Description |
|--------------------|----------------|---|
| threshold | <i>Integer</i> | The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 3 to 20. |
| duration | <i>Integer</i> | An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 60. |
| observation-window | <i>Integer</i> | Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 10. |

Example

```
(config-ftp)> lockout-policy 10 30 2
Ftp::Server: Bruteforce detection is enabled.
```

```
(config-ftp)> no lockout-policy
Ftp::Server: Bruteforce detection is disabled.
```

```
(config-ftp)> lockout-policy 0
Ftp::Server: Bruteforce detection reset to default.
```

| History | Version | Description |
|---------|---------|---|
| | 2.12 | The ip ftp lockout-policy command has been introduced. |

3.42.3 ip ftp permissive

Description Access to the FTP server for all users without authentication.
Command with **no** prefix denies access.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-ftp)> permissive
(config-ftp)> no permissive
```

Example

```
(config-ftp)> permissive
(config-ftp)> no permissive
```

| History | Version | Description |
|---------|---------|---|
| | 2.08 | The ip ftp permissive command has been introduced. |

3.42.4 ip ftp security-level

Description Set FTP security level. By default, private value is set.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-ftp)> security-level (public | private | protected)
```

| Arguments | Argument | Value | Description |
|-----------|----------|----------------|---|
| | public | <i>Keyword</i> | Access to the FTP server is allowed for public, private and protected interfaces. |
| | private | <i>Keyword</i> | Access to the FTP server is allowed for private interfaces. |

| Argument | Value | Description |
|-----------|----------------|---|
| protected | <i>Keyword</i> | Access to the FTP server is allowed for private and protected interfaces. |

Example

```
(config-ftp)> security-level protected
Ftp::Manager: Security level changed to protected.
```

History

| Version | Description |
|---------|---|
| 2.08 | The ip ftp security-level command has been introduced. |

3.43 ip host

Description Add a domain name and address as a DNS-record.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ip host <domain> <address>
```

```
(config)> no ip host [ <domain> <address> ]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--------------------------|
| domain | <i>String</i> | A domain name of a host. |
| address | <i>IP address</i> | An IP address of a host. |

Example

```
(config)> ip host keenetic.local 192.168.1.22
Dns::Manager: Added static record for "keenetic.local", address ►
192.168.1.22.
```

```
(config)> no ip host keenetic.local 192.168.1.22
Dns::Manager: Record "keenetic.local", address 192.168.1.22 ►
deleted.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ip host command has been introduced. |

3.44 ip hotspot

Description Access to a group of commands for Hotspot configuration.

Prefix no No

| | |
|------------------------|------------------|
| Change settings | No |
| Multiple input | No |
| Interface type | IP |
| Group entry | (config-hotspot) |

Synopsis | (config)> **ip hotspot**

Example (config)> **ip hotspot**
(config-hotspot)>

| History | Version | Description |
|----------------|---------|--|
| | 2.06 | The ip hotspot command has been introduced. |

3.44.1 ip hotspot auto-scan interface

Description Enable subnetwork passive scanning on interface. By default is enabled.
Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis | (config-hotspot)> **auto-scan interface** *<interface>*
| (config-hotspot)> **no auto-scan interface** *<interface>*

| Arguments | Argument | Value | Description |
|------------------|-----------|------------------|----------------------------------|
| | interface | <i>Interface</i> | Full interface name or an alias. |

Example (config-hotspot)> **auto-scan interface WifiMaster0/AccessPoint1**
Hotspot::Discovery::Manager: Subnetwork scanning on interface ►
"WifiMaster0/AccessPoint1" is unchanged.

(config-hotspot)> **auto-scan interface WifiMaster0/AccessPoint1**
Hotspot::Discovery::Manager: Subnetwork scanning on interface ►
"WifiMaster0/AccessPoint1" is disabled.

| History | Version | Description |
|----------------|---------|--|
| | 2.08 | The ip hotspot auto-scan interface command has been introduced. |

3.44.2 ip hotspot auto-scan interval

Description Set interval for probes of online hosts. By default, the value 30 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-hotspot)> auto-scan interval <interval>
(config-hotspot)> no auto-scan interval
```

Arguments

| Argument | Value | Description |
|----------|----------------|--------------------------------------|
| interval | <i>Integer</i> | Auto-scan probe interval in seconds. |

Example

```
(config-hotspot)> auto-scan interval 10
Hotspot::Discovery::Manager: Auto-scan probe interval is set to ►
10 s.
```

```
(config-hotspot)> no auto-scan interval
Hotspot::Discovery::Manager: Auto-scan probe interval reset to ►
default.
```

History

| Version | Description |
|---------|---|
| 2.08 | The ip hotspot auto-scan interval command has been introduced. |

3.44.3 ip hotspot auto-scan passive

Description Set passive autoscan rate in hosts per seconds. By default, the value 3 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-hotspot)> auto-scan passive <rate> hps
```

```
(config-hotspot)> no auto-scan passive
```

Arguments

| Argument | Value | Description |
|----------|----------------|------------------------|
| rate | <i>Integer</i> | Passive autoscan rate. |

Example

```
(config-hotspot)> auto-scan passive 5 hps
Hotspot::Discovery::Manager: Auto-scan rate is set to 5 hps.
```

```
(config-hotspot)> no auto-scan passive
Hotspot::Discovery::Manager: Auto-scan rate reset to default.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip hotspot auto-scan passive command has been introduced. |

3.44.4 ip hotspot auto-scan timeout

Description

Set offline timeout for hosts. After the specified time, the missing host is removed from the online host list. By default, the value 35 is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-hotspot)> auto-scan timeout <timeout>
```

```
(config-hotspot)> no auto-scan timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|-----------------------------|
| timeout | <i>Integer</i> | Offline timeout in seconds. |

Example

```
(config-hotspot)> auto-scan timeout 31
Hotspot::Discovery::Manager: Auto-scan host offline timeout is ►
set to 31 s.
```

```
(config-hotspot)> no auto-scan timeout
Hotspot::Discovery::Manager: Auto-scan host offline timeout reset ►
to default.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip hotspot auto-scan timeout command has been introduced. |

3.44.5 ip hotspot default-policy

Description

Define the Hotspot policy for all interfaces or assign IP Policy. Policy applies to all hosts that have no explicitly configured access rule, [ip hotspot policy](#).

Default policy: permit.

Command with **no** prefix resets policy to default.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config-hotspot)> default-policy (<access> | <policy>)
```

```
(config-hotspot)> no default-policy
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------------------------|
| access | permit | Permit access to the internet. |
| | deny | Deny access to the internet. |
| policy | <i>Policy</i> | Name of IP Policy profile. |

Example

```
(config-hotspot)> default-policy permit  
Hotspot::Manager: Default policy "permit" applied.
```

```
(config-hotspot)> default-policy deny  
Hotspot::Manager: Default policy "deny" applied.
```

```
(config-hotspot)> default-policy Policy0  
Hotspot::Manager: Default policy "Policy0" applied.
```

```
(config-hotspot)> no default-policy  
Hotspot::Manager: Default policy cleared.
```

History

| Version | Description |
|---------|---|
| 2.09 | The ip hotspot default-policy command has been introduced. |
| 2.12 | Argument policy was added. |

3.44.6 ip hotspot host

Description Setup bypass or block rules for specific Hotspot clients. Host rules override interface based policy (see [ip hotspot policy](#) command).

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config-hotspot)> host <mac> (<access> | schedule <schedule> | policy <policy>)
```

```
(config-hotspot)> no host <mac> (<access> | schedule | policy)
```

Arguments

| Argument | Value | Description |
|----------|-------------|--|
| mac | MAC address | Host MAC address. Host must be registered via known host in advance. |
| access | permit | Permit access to the internet. |
| | deny | Deny access to the internet. |
| schedule | Schedule | The name of the schedule that was created with schedule group of commands. |
| policy | Policy | Name of IP Policy profile. |

Example

```
(config)> known host MYTEST 54:e4:3a:8a:f3:a7
Hotspot::Manager: Policy "permit" applied to interface "Home".
```

```
(config-hotspot)> host 54:e4:3a:8a:f3:a7 permit
Hotspot::Manager: Rule "permit" applied to host ►
"54:e4:3a:8a:f3:a7".
```

```
(config-hotspot)> host 54:e4:3a:8a:f3:a7 deny
Hotspot::Manager: Rule "deny" applied to host "54:e4:3a:8a:f3:a7".
```

```
(config-hotspot)> host 54:e4:3a:8a:f3:a7 schedule MYSCHEDULE
Hotspot::Manager: Schedule "MYSCHEDULE" applied to host ►
"54:e4:3a:8a:f3:a7".
```

```
(config-hotspot)> no host 54:e4:3a:8a:f3:a7 schedule
Hotspot::Manager: Host "54:e4:3a:8a:f3:a7" schedule disabled.
```

```
(config-hotspot)> host 54:e4:3a:8a:f3:a7 policy Policy0
Hotspot::Manager: Policy "Policy0" applied to host ►
"54:e4:3a:8a:f3:a7".
```

```
(config-hotspot)> no host 54:e4:3a:8a:f3:a7 policy
Hotspot::Manager: Policy removed from host "54:e4:3a:8a:f3:a7".
```

History

| Version | Description |
|---------|---|
| 2.06 | The ip hotspot host command has been introduced. |
| 2.12 | Arguments permit, deny, schedule, policy were added. |

3.44.7 ip hotspot host priority

Description

Assign a specific priority to all traffic bound to a registered host. Registration of a host is performed in advance by the **known host** command.

Command with **no** prefix removes the priority.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-hotspot)> host <mac> priority <priority>
```

```
(config-hotspot)> no host <mac> priority
```

Arguments

| Argument | Value | Description |
|----------|-------------|-------------------|
| mac | MAC address | Host MAC address. |
| priority | 1 | Top. |
| | 2 | Critical. |
| | 3 | High. |
| | 4 | Medium-high. |
| | 5 | Medium. |
| | 6 | Normal (Default). |
| | 7 | Low. |

Example

```
(config-hotspot)> host 04:d2:c1:14:bc:59 priority 7
Hotspot::Manager: Applied priority "7" to host ►
"04:d2:c1:14:bc:59".
```

```
(config-hotspot)> no host 04:d2:c1:14:bc:59 priority
Hotspot::Manager: Removed priority from host "04:d2:c1:14:bc:59".
```

| History | Version | Description |
|---------|---------|--|
| | 3.08 | The ip hotspot host priority command has been introduced. |

3.44.8 ip hotspot policy

Description Define the Hotspot policy for a specific interface. Policy applies to all hosts that have no explicitly configured access rule, **ip hotspot host**.

Default policy: permit.

Command with **no** prefix resets policy to default.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config-hotspot)> policy <interface> (<access> | <policy>)
```

```
(config-hotspot)> no policy <interface>
```

| Arguments | Argument | Value | Description |
|-----------|-----------|------------------|---|
| | interface | <i>Interface</i> | Ethernet interface full name or an alias. |
| | access | permit | Permit access to the internet. |
| | | deny | Deny access to the internet. |
| | policy | <i>Policy</i> | Name of IP Policy profile. |

Example

```
(config-hotspot)> policy Home permit  
Hotspot::Manager: Policy "permit" applied to interface "Home".
```

```
(config-hotspot)> policy Home deny  
Hotspot::Manager: Policy "deny" applied to interface "Home".
```

```
(config-hotspot)> policy Home Policy0  
Hotspot::Manager: Policy "Policy0" applied to interface "Home".
```

```
(config-hotspot)> no policy Home  
Hotspot::Manager: Interface "Home" policy cleared.
```

| History | Version | Description |
|---------|---------|---|
| | 2.06 | The ip hotspot policy command has been introduced. |
| | 2.12 | Argument policy was added. |

3.44.9 ip hotspot priority

Description Assign a specific priority to all traffic bound to the interface.

Command with **no** prefix removes the priority.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config-hotspot)> priority <interface> <priority>
(config-hotspot)> no priority <interface>
```

Arguments

| Argument | Value | Description |
|-----------|------------------|----------------------------------|
| interface | <i>Interface</i> | Full interface name or an alias. |
| priority | 1 | Top. |
| | 2 | Critical. |
| | 3 | High. |
| | 4 | Medium-high. |
| | 5 | Medium. |
| | 6 | Normal (Default). |
| | 7 | Low. |

Example

```
(config-hotspot)> priority Home 7
Hotspot::Manager: Applied priority "7" to interface "Home".
```

```
(config-hotspot)> no priority Home
Hotspot::Manager: Removed priority from interface "Home".
```

History

| Version | Description |
|---------|---|
| 3.08 | The ip hotspot priority command has been introduced. |

3.44.10 ip hotspot wake

Description Send Wake-on-LAN packet to private and protected interfaces of the host.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Synopsis (config-hotspot)> **wake** *<mac>*

Arguments

| Argument | Value | Description |
|----------|-------------|-------------------|
| mac | MAC address | Host MAC address. |

Example

```
(config-hotspot)> wake a8:1e:84:11:f1:22
Hotspot::Manager: WoL sent to host: a8:1e:84:11:f1:22.
```

History

| Version | Description |
|---------|---|
| 2.08 | The ip hotspot wake command has been introduced. |

3.45 ip http lockout-policy

Description Set HTTP bruteforce detection parameters for public interfaces. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config)> **ip http lockout-policy** *<threshold>* [*<duration>*] [*<observation-window>*]

(config)> **no ip http lockout-policy**

Arguments

| Argument | Value | Description |
|--------------------|---------|---|
| threshold | Integer | The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 4 to 20. |
| duration | Integer | An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 60. |
| observation-window | Integer | Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 10. |

Example

```
(config)> ip http lockout-policy 10 30 2
Http::Manager: Bruteforce detection is enabled.
```

```
(config)> no ip http lockout-policy
Http::Manager: Bruteforce detection is disabled.
```

```
(config)> ip http lockout-policy 0
Http::Manager: Bruteforce detection reset to default.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip http lockout-policy command has been introduced. |

3.46 ip http log access

Description

Enable debug mode for web server (nginx). By default, feature is disabled.

Command with **no** prefix disables the debug mode.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config)> ip http log access
```

```
(config)> no ip http log access
```

Example

```
(config)> ip http log access
Http::Manager: Enabled access logging.
```

```
(config)> no ip http log access
Http::Manager: Disabled access logging.
```

History

| Version | Description |
|---------|--|
| 3.00 | The ip http log access command has been introduced. |

3.47 ip http log auth

Description

Enable logging of failed authorization attempts to the system. By default, feature is disabled.

Command with **no** prefix disables logging.

Prefix no

Yes

Change settings Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config)> ip http log auth
(config)> no ip http log auth
```

Example

```
(config)> ip http log auth
Http::Manager: Auth logging enabled.
```

```
(config)> no ip http log auth
Http::Manager: Auth logging disabled.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip http log auth command has been introduced. |

3.48 ip http log webdav

Description Enable logging of failed connection attempts to the [WebDAV](#) server. By default, feature is disabled.

Command with **no** prefix disables logging.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config)> ip http log webdav
(config)> no ip http log webdav
```

Example

```
(config)> ip http log webdav
WebDav::Server: Enabled request tracing.
```

```
(config)> no ip http log webdav
WebDav::Server: Disabled request tracing.
```

History

| Version | Description |
|---------|--|
| 3.04 | The ip http log webdav command has been introduced. |

3.49 ip http port

Description Assign HTTP port for Web interface of Carrier. By default, 80 value is used.

Command with **no** prefix resets HTTP port to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip http port <port>
```

```
(config)> no ip http port
```

Arguments

| Argument | Value | Description |
|----------|----------------|----------------|
| port | <i>Integer</i> | New HTTP port. |

Example

```
(config)> ip http port 8080
Http::Manager: Port changed to 8080.
```

```
(config)> no ip http port
Http::Manager: Port reset to 80.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip http port command has been introduced. |

3.50 ip http proxy

Description Access to a group of commands to configure HTTP proxy. If the proxy is not found, the command tries to create it.

Command with **no** prefix removes the proxy.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Group entry (config-http-proxy)

Synopsis

```
(config)> ip http proxy <name>
```



```
(config)> no ip http proxy <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------|
| name | <i>String</i> | HTTP proxy name. |

Example

```
(config)> ip http proxy TEST
Http::Manager: Proxy "TEST" successfully created.
```

History

| Version | Description |
|---------|---|
| 2.08 | The ip http proxy command has been introduced. |

3.50.1 ip http proxy auth

Description

Enable authorization for HTTP proxy. By default, the setting is disabled.

Command with **no** prefix disables HTTP proxy authorization.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-http-proxy)> auth
```

```
(config-http-proxy)> no auth
```

Example

```
(config-http-proxy)> auth
Http::Manager: Proxy password auth is enabled.
```

```
(config-http-proxy)> no auth
Http::Manager: Proxy password auth is disabled.
```

History

| Version | Description |
|---------|--|
| 2.10 | The ip http proxy auth command has been introduced. |

3.50.2 ip http proxy domain

Description

Set domain name that specifies the *FQDN* of the virtual host.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-http-proxy)> domain static <domain>
```

```
(config-http-proxy)> no domain
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------|
| domain | <i>String</i> | A domain name. |

Example

```
(config-http-proxy)> domain static example.net  
Http::Manager: Configured base domain for proxy: test.
```

```
(config-http-proxy)> no domain  
Http::Manager: Removed ndns domain for proxy: test.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip http proxy domain command has been introduced. |

3.50.3 ip http proxy domain ndns

Description Set HTTP proxy domain through NDNS. If enabled, setting [ip http proxy domain](#) is deleted.

Command with **no** prefix removes the setting.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-http-proxy)> domain ndns
```

```
(config-http-proxy)> no domain ndns
```

Example

```
(config-http-proxy)> domain ndns  
Http::Manager: Configured ndns domain for proxy: test.
```

```
(config-http-proxy)> no domain  
Http::Manager: Removed ndns domain for proxy: test.
```

| History | Version | Description |
|---------|---------|---|
| | 2.08 | The ip http proxy domain ndns command has been introduced. |

3.50.4 ip http proxy force-host

Description Enable the Host header rewriting for the upstream.

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-http-proxy)> force-host <force-host>
```

```
(config-http-proxy)> no force-host
```

| Arguments | Argument | Value | Description |
|-----------|------------|---------------|----------------------------|
| | force-host | <i>String</i> | IP address or domain name. |

Example

```
(config-http-proxy)> force-host 192.168.8.1
Http::Proxy: "modem": enabled Host header enforcing to ►
"192.168.8.1".
```

```
(config-http-proxy)> force-host modem.keenetic.pro
Http::Proxy: "modem": enabled Host header enforcing to ►
"modem.keenetic.pro".
```

```
(config-http-proxy)> no force-host
Http::Proxy: "modem": disabled Host header enforcing.
```

| History | Version | Description |
|---------|---------|--|
| | 3.06 | The ip http proxy force-host command has been introduced. |

3.50.5 ip http proxy preserve-host

Description Set option to save the original header for the host when passing through a proxy.

Command with **no** prefix disable option.

Prefix no Yes

Change settings Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-http-proxy)> preserve-host
(config-http-proxy)> no preserve-host
```

Example

```
(config-http-proxy)> preserve-host
Http::Manager: Proxy HTTP Host header preservation is enabled.

(config-http-proxy)> no preserve-host
Http::Manager: Proxy HTTP Host header preservation is disabled.
```

History

| Version | Description |
|---------|---|
| 2.13 | The ip http proxy preserve-host command has been introduced. |

3.50.6 ip http proxy security-level

Description Set the security level for HTTP proxy service. By default, private value is set. Command with **no** prefix resets setting to default.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-http-proxy)> security-level (public | private)
(config-http-proxy)> no security-level
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| public | <i>Keyword</i> | Access to the HTTP proxy is allowed for public, private and protected interfaces. |
| private | <i>Keyword</i> | Access to the HTTP proxy is allowed for private interfaces only. |

Example

```
(config-http-proxy)> security-level public
Http::Proxy: "test1": set public security level.
```

```
(config-http-proxy)> no security-level
Http::Proxy: "test1": unset public security level.
```

| History | Version | Description |
|---------|---------|--|
| | 3.05 | The ip http proxy security-level command has been introduced. |

3.50.7 ip http proxy ssl redirect

Description Enable automatic redirection on domains with SSL certificate for HTTP proxy service. By default, the redirection is enabled.

Command with **no** prefix disables redirection.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-http-proxy)> ssl redirect
(config-http-proxy)> no ssl redirect
```

Example

```
(config)> ip http ssl redirect
Http::Proxy: "mytest": enabled SSL redirect.
```

```
(config)> no ip http ssl redirect
Http::Proxy: "mytest": disabled SSL redirect.
```

| History | Version | Description |
|---------|---------|--|
| | 4.00 | The ip http proxy ssl redirect command has been introduced. |

3.50.8 ip http proxy upstream

Description Set HTTP or HTTPS server address for request redirecting.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-http-proxy)> upstream (http | https) (<mac> | <ip> | <fqdn>)[<port>]
```

```
(config-http-proxy)> no upstream
```

Arguments

| Argument | Value | Description |
|----------|--------------------|-----------------------------|
| http | <i>Keyword</i> | HTTP server. |
| https | <i>Keyword</i> | HTTPS server. |
| mac | <i>MAC address</i> | MAC address of server. |
| ip | <i>IP address</i> | IP address of server. |
| fqdn | <i>FQDN</i> | Full domain name of server. |
| port | <i>Integer</i> | The port number. |

Example

```
(config-http-proxy)> upstream http 192.168.1.1 8080
Http::Manager: Proxy "TEST" upstream was set.
```

```
(config-http-proxy)> upstream https google.com 443
Http::Proxy: "modem": set https upstream google.com, port 443.
```

```
(config-http-proxy)> no upstream
Http::Manager: Remove upstream info for proxy "test".
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip http proxy upstream command has been introduced. |
| 3.05 | https keyword was added. |

3.50.9 ip http proxy x-real-ip

Description Enable X-Real-IP and X-Forwarded-For header support for HTTP proxy.
Command with **no** prefix disables headers.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-http-proxy)> x-real-ip
```

```
(config-http-proxy)> no x-real-ip
```

Example

```
(config-http-proxy)> x-real-ip
Http::Proxy: "test1": enabled X-Real-IP and X-Forwarded-For ►
headers.
```

```
(config-http-proxy)> no x-real-ip
Http::Proxy: "test1": disabled X-Real-IP and X-Forwarded-For ►
headers.
```

History

| Version | Description |
|---------|---|
| 3.05 | The ip http proxy x-real-ip command has been introduced. |

3.51 ip http security-level

Description Set the security level for remote access to the Keenetic web interface. By default, private value is set.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis | (config)> **ip http security-level (public [ssl] | private | protected)**

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| public | <i>Keyword</i> | Access to the web interface is allowed for public, private and protected interfaces via HTTP and HTTPS. |
| private | <i>Keyword</i> | Access to the web interface is allowed for private interfaces. |
| protected | <i>Keyword</i> | Access to the web interface is allowed for private and protected interfaces. |
| ssl | <i>Keyword</i> | Access to the web interface is allowed for public interfaces via HTTPS only. |

Example

```
(config)> ip http security-level protected
Http::Manager: Security level changed to protected.
```

```
(config)> ip http security-level public ssl
Http::Manager: Security level set to public SSL.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip http security-level command has been introduced. |
| 3.00 | Parameter ssl was added. |

3.52 ip http ssl acme ecdsa

Description Enable support for certificates based on ECDSA cryptography.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis `(config)> ip http ssl acme ecdsa`

`(config)> no ip http ssl acme ecdsa`

Example `(config)> ip http ssl acme ecdsa`
Acme::Client: Enabled ECDSA chain.

`(config)> no ip http ssl acme ecdsa`
Acme::Client: Disabled ECDSA chain.

History

| Version | Description |
|---------|--|
| 3.09 | The ip http ssl acme ecdsa command has been introduced. |

3.53 ip http ssl acme get

Description Generate and sign SSL certificate for the specified domain name (by default, KeenDNS). Access from the Internet should be granted.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> ip http ssl acme get [<domain>]`

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------|
| domain | <i>String</i> | KeenDNS domain name. |

Example `(config)> ip http ssl acme get mytest.keenetic.pro`
Acme::Client: Obtaining certificate for domain ►
"mytest.keenetic.pro" is started.

| History | Version | Description |
|---------|---------|--|
| | 2.11 | The ip http ssl acme get command has been introduced. |

3.54 ip http ssl acme revoke

Description Revoke and remove SSL certificate for the specified domain name (KeenDNS, by default).

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> ip http ssl acme revoke <domain>`

| Arguments | Argument | Value | Description |
|-----------|----------|---------------|----------------------|
| | domain | <i>String</i> | KeenDNS domain name. |

Example `(config)> ip http ssl acme revoke mytest.keenetic.pro`
 Acme::Client: Revoking certificate for domain ▶
 "mytest.keenetic.pro" is started.

| History | Version | Description |
|---------|---------|---|
| | 2.11 | The ip http ssl acme revoke command has been introduced. |

3.55 ip http ssl acme list

Description Show a list of free Let`s Encrypt certificates in the system.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> ip http ssl acme list`

Example `(config)> ip http ssl acme list`
 certificate:
 domain: cc6b5a71a7644903b51a5454.keenetic.io
 should-be-renewed: no
 is-expired: no
 issue-time: 2018-06-20T09:16:30.000Z
 expiration-time: 2018-09-17T09:16:30.000Z

```

certificate:
  domain: mytest.keenetic.pro
should-be-renewed: no
  is-expired: no
  issue-time: 2018-06-28T16:36:56.000Z
  expiration-time: 2018-09-25T16:36:56.000Z

```

History

| Version | Description |
|---------|---|
| 2.11 | The ip http ssl acme list command has been introduced. |

3.56 ip http ssl enable

Description Enable HTTP SSL server. By default, the server is disabled.

Command with **no** prefix disables SSL server.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis | (config)> **ip http ssl enable**

| (config)> **no ip http ssl enable**

Example (config)> **ip http ssl enable**
Http::Manager: Enabled SSL service.

(config)> **no ip http ssl enable**
Http::Manager: Disabled SSL service.

History

| Version | Description |
|---------|--|
| 2.07 | The ip http ssl enable command has been introduced. |

3.57 ip http ssl port

Description Assign HTTPS port for Web interface of Carrier. By default, 443 value is used.

Command with **no** prefix resets HTTPS port to default.

Prefix no Yes

Change settings Yes

| Multiple input | No | | | | | | |
|-----------------------|---|-----------------|-------------|-------------|--|----------------|-----------------|
| Interface type | IP | | | | | | |
| Synopsis | <pre>(config)> ip http ssl port <port></pre> <pre>(config)> no ip http ssl port</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>port</td> <td><i>Integer</i></td> <td>New HTTPS port.</td> </tr> </tbody> </table> | Argument | Value | Description | port | <i>Integer</i> | New HTTPS port. |
| Argument | Value | Description | | | | | |
| port | <i>Integer</i> | New HTTPS port. | | | | | |
| Example | <pre>(config)> ip http ssl port 4343</pre> <pre>Http:Manager: SSL port changed to 4343.</pre> <pre>(config)> no ip http ssl port</pre> <pre>Http:Manager: SSL port reset to 443.</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>4.00</td> <td>The ip http ssl port command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 4.00 | The ip http ssl port command has been introduced. | | |
| Version | Description | | | | | | |
| 4.00 | The ip http ssl port command has been introduced. | | | | | | |

3.58 ip http ssl redirect

| Description | <p>Enable automatic redirection on domains with SSL certificate. By default, the redirection is enabled.</p> <p>Command with no prefix disables redirection.</p> | | | | |
|------------------------|---|---------|-------------|------|--|
| Prefix no | Yes | | | | |
| Change settings | Yes | | | | |
| Multiple input | No | | | | |
| Interface type | IP | | | | |
| Synopsis | <pre>(config)> ip http ssl redirect</pre> <pre>(config)> no ip http ssl redirect</pre> | | | | |
| Example | <pre>(config)> ip http ssl redirect</pre> <pre>Http:Manager: Redirect to SSL is enabled.</pre> <pre>(config)> no ip http ssl redirect</pre> <pre>Http:Manager: Redirect to SSL is disabled.</pre> | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.11</td> <td>The ip http ssl redirect command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.11 | The ip http ssl redirect command has been introduced. |
| Version | Description | | | | |
| 2.11 | The ip http ssl redirect command has been introduced. | | | | |

3.59 ip http webdav

Description Access to a group of commands to configure [WebDAV](#) server.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Group entry (config-webdav)

Synopsis | (config)> **ip http webdav**

Example (config)> **ip http webdav**
Core::Configurator: Done.
(config-webdav)>

History

| Version | Description |
|---------|--|
| 3.04 | The ip http webdav command has been introduced. |

3.59.1 ip http webdav enable

Description Enable [WebDAV](#) server. By default, the server is disabled.

Command with **no** prefix disables [WebDAV](#) server.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis | (config-webdav)> **enable**

| (config-webdav)> **no enable**

Example (config-webdav)> **enable**
WebDav::Server: Enabled.

(config-webdav)> **no enable**
WebDav::Server: Disabled.

| History | Version | Description |
|---------|---------|---|
| | 3.04 | The ip http webdav enable command has been introduced. |

3.59.2 ip http webdav permissive

Description Access to the [WebDAV](#) server for all users without authentication. Command with **no** prefix denies anonymous access.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-webdav)> permissive
(config-webdav)> no permissive
```

Example

```
(config-webdav)> permissive
WebDav::Server: Enabled permissive mode.
```

```
(config-webdav)> no permissive
WebDav::Server: Disabled permissive mode.
```

| History | Version | Description |
|---------|---------|---|
| | 3.04 | The ip http webdav permissive command has been introduced. |

3.59.3 ip http webdav security-level

Description Set the security level for remote access to the [WebDAV](#) server. By default, private value is set.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-webdav)> security-level (public | private)
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| public | <i>Keyword</i> | Access to the WebDAV server is allowed for public, private and protected interfaces. |
| private | <i>Keyword</i> | Access to the WebDAV server is allowed for private interfaces. |

Example

```
(config-webdav)> security-level public
Http::Manager: WebDAV security level set to public.
```

History

| Version | Description |
|---------|---|
| 3.04 | The ip http webdav security-level command has been introduced. |

3.60 ip http x-frame-options

Description

Set X-Frame-Options header value for web server (nginx) in Home network segment.

Command with **no** prefix disables the feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config)> ip http x-frame-options <x-frame-options>
```

```
(config)> no ip http x-frame-options <x-frame-options>
```

Arguments

| Argument | Value | Description |
|-----------------|---------------|---------------------------|
| x-frame-options | <i>String</i> | The X-Frame-Option value. |

Example

```
(config)> ip http x-frame-options DENY
Http::Manager: Set X-Frame-Options to "DENY".
```

```
(config)> no ip http x-frame-options DENY
Http::Manager: Disabled X-Frame-Options header.
```

History

| Version | Description |
|---------|---|
| 3.05 | The ip http x-frame-options command has been introduced. |

3.61 ip name-server

Description Configure DNS server IP addresses. Addresses saved in this fashion are called static as opposite to dynamic — as registered by *PPP* or *DHCP* services.

Active, that addressed being used are the ones that have been registered most recently as compared to the others. Usually, the system uses the addresses which were obtained by several recent successfully connected *PPP* or *DHCP* services. If none of the services registers *DNS* addresses, static settings will be active. However, if after registering dynamic addresses the static settings are changed by the user, they become active until the new dynamic addresses are registered.

ip name-server command can be entered multiple times if several DNS-server addresses need to be setup. Moreover, each entered address can be associated with one or more domain names for working with specific areas, such as local names in the corporate network.

Command with **no** prefix removes the specified DNS server address from the static and the active lists if the command is furnished with arguments. If you use no arguments, the entire list of static addresses will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> ip name-server <address> [ : <port> ] [ <domain> [ on <interface> ] ]
]]

(config)> no ip name-server [ <address> [ : <port> ] ] [ <domain> [ on <interface> ] ]
```

Arguments

| Argument | Value | Description |
|-----------|-------------------|---|
| address | <i>IP address</i> | Name server address. |
| port | <i>Integer</i> | Name server port. |
| domain | <i>String</i> | Domain for which the server will be used. In resolving names the DNS-proxy first selects the address of the server with name best matching the requested domain. If the domain is not specified, the server will be used for all requests. Use "" as default domain. The maximum number of domains per one DNS entry is 16. |
| interface | <i>Interface</i> | Interface name to configure. |

Example

```
(config)> ip name-server 8.8.8.8 "" on ISP
Dns::InterfaceSpecific: Name server 8.8.8.8 added, domain ►
(default), interface ISP.
```

```
(config)> no ip name-server
Dns::Manager: Static name server list cleared.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip name-server command has been introduced. |
| 2.14 | Argument port was added. |

3.62 ip nat

Description

Enable translation of “local” addresses of network *network* or network behind the interface *interface*. For example, command `ip nat Home` means that all packets from the network `Home`, passing through the router will undergo IP spoofing.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config)> ip nat (<interface> | <address> <mask> )
```

```
(config)> no ip nat (<interface> | <address> <mask> )
```

Arguments

| Argument | Value | Description |
|-----------|-------------------|--|
| interface | <i>Interface</i> | Source interface name (full name or an alias). |
| address | <i>IP address</i> | Together with mask <i>mask</i> sets the range of source IP addresses to be translated. |
| mask | <i>IP-mask</i> | Mask of a translation range. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |

Example

```
(config)> ip nat Home
Network::Nat: A NAT rule added.
```

```
(config)> no ip nat Home
Network::Nat: A NAT rule removed.
```


| History | Version | Description |
|---------|---------|--|
| | 2.00 | The ip nat command has been introduced. |

3.63 ip nat full-cone

Description Enable mode *Full Cone NAT*. By default, the mode is disabled.
Command with **no** prefix disables the mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip nat full-cone
(config)> no ip nat full-cone
```

Example

```
(config)> ip nat full-cone
Network::Nat: Full cone mode enabled.
```

```
(config)> no ip nat full-cone
Network::Nat: Full cone mode disabled.
```

| History | Version | Description |
|---------|---------|--|
| | 3.01 | The ip nat full-cone command has been introduced. |

3.64 ip nat restricted-cone

Description Enable mode *Restricted NAT*. By default, the mode is disabled.
Command with **no** prefix disables the mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip nat restricted-cone
(config)> no ip nat restricted-cone
```

Example

```
(config)> ip nat restricted-cone
Network::Nat: Restricted cone mode enabled.
```

```
(config)> no ip nat restricted-cone
Network::Nat: Restricted cone mode disabled.
```

History

| Version | Description |
|---------|--|
| 3.01 | The ip nat restricted-cone command has been introduced. |

3.65 ip nat sstp

Description

Enable translation for *SSTP* clients.

Note: Command is available if the *SSTP* VPN server component is installed.

Command with **no** prefix removes the rule.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config)> ip nat sstp
```

```
(config)> no ip nat sstp
```

Example

```
(config)> ip nat sstp
SstpServer::Nat: SSTP VPN NAT enabled.
```

```
(config)> no ip nat sstp
SstpServer::Nat: SSTP VPN NAT disabled.
```

History

| Version | Description |
|---------|---|
| 2.12 | The ip nat sstp command has been introduced. |

3.66 ip nat vpn

Description

Enable translation for PPTP clients.

Note: Command is available if the PPTP VPN server component is installed.

Command with **no** prefix removes the rule.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config)> ip nat vpn
```

```
(config)> no ip nat vpn
```

Example

```
(config)> ip nat vpn
VpnServer::Nat: PPTP VPN NAT enabled.
```

```
(config)> no ip nat vpn
VpnServer::Nat: PPTP VPN NAT disabled.
```

History

| Version | Description |
|---------|--|
| 2.04 | The ip nat vpn command has been introduced. |

3.67 ip policy

Description Access to a group of commands to configure IP Policy — a default route selection rules for hosts and home network segments. If the IP Policy profile is not found, the command tries to create it. You can enter up to 16 profiles.

Command with **no** prefix removes the defined IP Policy profile from the list.

Prefix no Yes**Change settings** Yes**Multiple input** Yes**Group entry** (config-policy)

Synopsis

```
(config)> ip policy <name>
```

```
(config)> no ip policy <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| name | <i>Policy</i> | IP Policy name. Latin letters, numbers, hyphens and underscores are acceptable. Not more than 32 characters. |

Example

```
(config)> ip policy Policy0
Network::PolicyTable: Created policy "Policy0".
```

```
(config)> no ip policy Policy0
Network::PolicyTable: Removed policy "Policy0".
```

History

| Version | Description |
|---------|---|
| 2.12 | The ip policy command has been introduced. |

3.67.1 ip policy description

Description Assign an arbitrary description to the specified IP Policy profile.

Command with **no** prefix removes description.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-policy)> description <description>
(config-policy)> no description
```

Arguments

| Argument | Value | Description |
|-------------|---------------|--|
| description | <i>String</i> | An arbitrary description of the IP Policy. Latin letters, numbers, hyphens and underscores are acceptable. Not more than 256 characters. |

Example

```
(config-policy)> description Policy0ne
Network::PolicyTable: "Policy0": updated description.
```

```
(config-policy)> no description
Network::PolicyTable: "Policy0": updated description.
```

History

| Version | Description |
|---------|---|
| 2.12 | The ip policy description command has been introduced. |

3.67.2 ip policy multipath

Description Enable the function of simultaneous use of WAN connections in the balancing mode.

Command with **no** prefix disables the function.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-policy)> multipath
(config-policy)> no multipath
```

Example

```
(config-policy)> multipath
Network::PolicyTable: "Policy0": enable multipath.
```

```
(config-policy)> no multipath
Network::PolicyTable: "Policy0": disable multipath.
```

History

| Version | Description |
|---------|---|
| 2.14 | The ip policy multipath command has been introduced. |

3.67.3 ip policy permit

Description Permit IP Policy for the global interface. If single IP Policy is permitted for multiple interfaces, you can specify a priority for each of them.

Command with **no** prefix denies the IP Policy for specified interface. If you use no arguments, IP Policy will be denied for the entire list of interfaces.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config-policy)> permit global <interface> [ order <order> ]
(config-policy)> no permit [ global <interface> ]
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full interface name or an alias. |
| order | <i>Integer</i> | The priority of global interface to which the IP Policy is permitted. Can take values in the range from 1 to 65534, but not more than the number of global interfaces. |

Example

```
(config-policy)> permit global L2TP0 order 0
Network::PolicyTable: "Policy0": set permission to use L2TP0.
```

```
(config-policy)> no permit global L2TP0
Network::PolicyTable: "Policy0": set no permission to use L2TP0.
```

History

| Version | Description |
|---------|--|
| 2.12 | The ip policy permit command has been introduced. |

3.67.4 ip policy permit auto

Description Permit new connections for the IP Policy automatically. By default, the feature is disabled.

Command with **no** prefix removes auto permission.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis | (config-policy)> **permit auto**

| (config-policy)> **no permit auto**

Example (config-policy)> **permit auto**
Network::PolicyTable: "Policy0": set auto permission.

```
(config-policy)> no permit auto
Network::PolicyTable: "Policy0": set auto permission.
```

History

| Version | Description |
|---------|---|
| 2.12 | The ip policy permit auto command has been introduced. |

3.67.5 ip policy rate-limit input

Description Add the input rate-limiting parameters to global interfaces of the IP Policy.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-policy)> rate-limit <interface> input (<rate> | auto)
```

```
(config-policy)> no rate-limit <interface> input
```

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | The name of a global IP interface to rate-limit its traffic for a group of policy assignees. |
| rate | <i>Integer</i> | The ingress rate limit in kbps. Can take values in the range from 64 to 1000000. |
| auto | <i>Keyword</i> | Auto-ingress mode. |

Example

```
(config-policy)> rate-limit WifiMaster1/WifiStation0 input auto
Network::PolicyTable: "Policy0": set input rate limit to "auto".
```

```
(config-policy)> rate-limit WifiMaster1/WifiStation0 input 100000
Network::PolicyTable: "Policy0": set input rate limit to "100000" ►
kbps.
```

```
(config-policy)> rate-limit WifiMaster1/WifiStation0 no input
Network::PolicyTable: "Policy0": reset input rate limit.
```

| Version | Description |
|---------|--|
| 3.05 | The ip policy rate-limit input command has been introduced. |

3.67.6 ip policy rate-limit output

Description Add output rate-limiting parameters to global interfaces of the IP Policy.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-policy)> rate-limit <interface> output (<rate> | auto)
```

```
(config-policy)> no rate-limit <interface> output
```

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | The name of a global IP interface to rate-limit its traffic for a group of policy assignees. |

| Argument | Value | Description |
|----------|----------------|--|
| rate | <i>Integer</i> | The ingress rate limit in kbps. Can take values in the range from 64 to 1000000. |
| auto | <i>Keyword</i> | Auto-ingress mode. |

Example

```
(config-policy)> rate-limit ISP output auto
Network::PolicyTable: "Policy0": set output rate limit to "auto".
```

```
(config-policy)> rate-limit ISP output 1000
Network::PolicyTable: "Policy0": set output rate limit to "1000" ►
kbps.
```

```
(config-policy)> rate-limit ISP no output
Network::PolicyTable: "Policy0": reset ouput rate limit.
```

History

| Version | Description |
|---------|---|
| 3.05 | The ip policy rate-limit output command has been introduced. |
| 3.08 | The auto argument has been added. |

3.68 ip route

Description

Add a static route to the routing table to describe a rule of IP-packets transmission through a particular gateway or network interface.

As the destination network, one can specify default keyword. In this case, a default route will be created.

Command with **no** prefix removes the route with the specified parameters.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> ip route (<network> <mask> | <host> | default) (<gateway>
[<interface> | <interface>) [auto] [metric] [reject]
```

```
(config)> no ip route (<network> <mask> | <host> | default) [<gateway> |
<interface>] [metric]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--|
| network | <i>IP address</i> | IP address of the destination network. |

| Argument | Value | Description |
|-----------|-------------------|---|
| mask | <i>IP-mask</i> | Mask of the destination network. There are two ways to enter the mask: in the canonical form (for example, 255.255.255.0) and in the form of prefix bit length (for example, /24). |
| host | <i>IP address</i> | IP address of the destination node. |
| default | <i>Keyword</i> | Helps specify default routes. |
| interface | <i>Interface</i> | Interface full name or an alias. Specified as the direction of the packet transferring, if the interface has a point-to-point channel connected that requires no additional addressing within the channel. If priority interface ip global is set on the interface, the route is added to the system table only if there is no other higher priority route with the same address. |
| gateway | <i>IP address</i> | IP address of the router in a directly connected network. Can be specified along with the interface name, if it is required to specify interface ip global priority. If no interface is specified, the systemd determines it automatically based on the current IP settings. |
| auto | <i>Keyword</i> | Allows you to apply the route when specified gateway becomes available. |
| metric | <i>Integer</i> | Route metrics. Ignored in the current implementation. |
| reject | <i>Keyword</i> | Enable route to use only the selected interface for routing the traffic to the specified destination. If the specified interface is not active, the traffic is not sent via other possible routes. This option works only when using the auto option and cannot be applied to the default route. |

Example

```
(config)> ip route default Home
Network::RoutingTable: Added static route: 0.0.0.0/0 via Home.
```

```
(config)> ip route 123.123.123.123 Wireguard1 auto reject
Network::RoutingTable: Added static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config)> no ip route 123.123.123.123 Wireguard1
Network::RoutingTable: Deleted static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config)> no ip route default
Network::RoutingTable: No such route: 0.0.0.0/0.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip route command has been introduced. |
| 3.08 | The reject option was added. |

3.69 ip search-domain

Description Assign search domain to resolve hostnames that are not fully qualified. Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip search-domain <domain>
```

```
(config)> no ip search-domain
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| domain | <i>String</i> | The domain name to assign. |

Example

```
(config)> ip search-domain my.example
```

```
(config)> no ip search-domain my.example
```

History

| Version | Description |
|---------|--|
| 2.00 | The ip search-domain command has been introduced. |

3.70 ip sip alg direct-media

Description Replace IP address in Owner field of SDP. This feature is used to not configure port forwarding separately for VoIP traffic. By default, the setting is disabled. Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip sip alg direct-media
```

```
(config)> no ip sip alg direct-media
```

Example

```
(config)> ip sip alg direct-media
Sip::Alg: Direct media enabled.
```

```
(config)> no ip sip alg direct-media
Sip::Alg: Direct media disabled.
```

History

| Version | Description |
|---------|---|
| 2.11 | The ip sip alg direct-media command has been introduced. |

3.71 ip sip alg port

Description

Specify a port number for SIP messages other than the default port. By default, port number is 5060.

Command with **no** prefix resets port to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> ip sip alg port <port>
```

```
(config)> no ip sip alg port
```

Arguments

| Argument | Value | Description |
|----------|----------------|------------------|
| port | <i>Integer</i> | The port number. |

Example

```
(config)> ip sip alg port 7090
Sip::Alg: Port set to 7090.
```

```
(config)> no ip sip alg port
Sip::Alg: Port reset to default.
```

History

| Version | Description |
|---------|---|
| 2.12 | The ip sip alg port command has been introduced. |

3.72 ip ssh

Description

Access to a group of commands to manage SSH-server.

| | |
|------------------------|--------------|
| Prefix no | No |
| Change settings | No |
| Multiple input | No |
| Interface type | IP |
| Group entry | (config-ssh) |

Synopsis | (config)> **ip ssh**

Example (config)> **ip ssh**
(config-ssh)>

History

| Version | Description |
|---------|--|
| 2.12 | The ip ssh command has been introduced. |

3.72.1 ip ssh cipher

Description Set a symmetric key cipher for SSH session.
Command with **no** prefix removes the specified cipher.

| | |
|------------------------|-----|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | Yes |
| Interface type | IP |

Synopsis | (config-ssh)> **cipher** <cipher>
| (config-ssh)> **no cipher** <cipher>

Arguments

| Argument | Value | Description |
|----------|-------------------------------|--|
| cipher | chacha20-poly1305@openssh.com | An encryption algorithm ChaCha20-Poly1305. |
| | aes128-ctr | An encryption algorithm AES128-CTR. |
| | aes256-ctr | An encryption algorithm AES1256-CTR. |
| | aes128-gcm@openssh.com | An encryption algorithm AES128-GCM. |
| | aes256-gcm@openssh.com | An encryption algorithm AES256-GCM. |

Example

```
(config-ssh)> cipher chacha20-poly1305@openssh.com
Ssh::Manager: Added cipher "chacha20-poly1305@openssh.com".
```

```
(config-ssh)> no cipher chacha20-poly1305@openssh.com
Ssh::Manager: Use default ciphers.
```

History

| Version | Description |
|---------|---|
| 3.04 | The ip ssh cipher command has been introduced. |

| Version | Description |
|---------|--|
| 3.05 | New encryption algorithms aes128-gcm@openssh.com, aes256-gcm@openssh.com were added. |

3.72.2 ip ssh keygen

Description Regeneration of a given type key.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis | (config-ssh)> **keygen** *<keygen>*

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| keygen | default | Automatic generation of a new open key RSA2048 + ECDSA-NISTP521. |
| | rsa-1024 | Automatic generation of a new open RSA-key with a length of 1024 bits. |
| | rsa-2048 | Automatic generation of a new open RSA-key with a length of 2048 bits. |
| | rsa-4096 | Automatic generation of a new open RSA-key with a length of 4096 bits. |
| | ecdsa-nistp256 | Automatic generation of a new open ECDSA-key with a length of 256 bits. |
| | ecdsa-nistp384 | Automatic generation of a new open ECDSA-key with a length of 384 bits. |
| | ecdsa-nistp521 | Automatic generation of a new open ECDSA-key with a length of 521 bits. |
| | ed25519 | Automatic generation of a new open ED25519 key with a length of 256 bits. |

Example (config-ssh)> **keygen default**
Ssh::Manager: Key generation is in progress...

History

| Version | Description |
|---------|---|
| 2.12 | The ip ssh keygen command has been introduced. |

3.72.3 ip ssh lockout-policy

Description Set SSH bruteforce detection parameters for public interfaces. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-ssh)> lockout-policy <threshold> [ <duration> [ <observation-window> ] ]
```

```
(config-ssh)> no lockout-policy
```

Arguments

| Argument | Value | Description |
|--------------------|----------------|---|
| threshold | <i>Integer</i> | The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 4 to 20. |
| duration | <i>Integer</i> | An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 60. |
| observation-window | <i>Integer</i> | Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 10. |

Example (config-ssh)> **lockout-policy 10 30 2**
Ssh::Manager: Bruteforce detection is reconfigured.

```
(config-ssh)> no lockout-policy  
Ssh::Manager: Bruteforce detection is disabled.
```

```
(config-ssh)> lockout-policy 0  
Ssh::Manager: Bruteforce detection reset to default.
```

| History | Version | Description |
|---------|---------|---|
| | 2.12 | The ip ssh lockout-policy command has been introduced. |

3.72.4 ip ssh port

Description Specify port number for SSH connection. By default, 22 port number is used. Command with **no** prefix resets port number to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-ssh)> port <number>
```

```
(config-ssh)> no port
```

| Arguments | Argument | Value | Description |
|-----------|----------|----------------|--|
| | number | <i>Integer</i> | Port number. Can take values in the range from 1 to 65535 inclusively. |

Example

```
(config-ssh)> port 2626
```

Ssh::Manager: Port changed to 2626.

```
(config-ssh)> no port
```

Ssh::Manager: Port reset to 22.

| History | Version | Description |
|---------|---------|---|
| | 2.12 | The ip ssh port command has been introduced. |

3.72.5 ip ssh security-level

Description Set SSH security level. By default, private value is set.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-ssh)> security-level (public | private | protected)
```

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| public | <i>Keyword</i> | Access to the SSH server is allowed for public, private and protected interfaces. |
| private | <i>Keyword</i> | Access to the SSH server is allowed for private interfaces. |
| protected | <i>Keyword</i> | Access to the SSH server is allowed for private and protected interfaces. |

Example

```
(config-ssh)> security-level protected
Ssh::Manager: Security level changed to protected.
```

History

| Version | Description |
|---------|---|
| 2.12 | The ip ssh security-level command has been introduced. |

3.72.6 ip ssh session timeout

Description

Set the lifetime of inactive session for SSH connection. By default, 300 value is used, i.e. the function of activity tracking within a session is disabled.

Command with **no** prefix resets timeout to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-ssh)> session timeout <timeout>
```

```
(config-ssh)> no session timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | The lifetime of inactive session. Can take values in the range from 5 to $2^{32} - 1$ seconds inclusively. |

Example

```
(config-ssh)> session timeout 123456
Ssh::Manager: A session timeout value set to 123456 seconds.
```

```
(config-ssh)> no session timeout
Ssh::Manager: A session timeout reset.
```


| History | Version | Description |
|---------|---------|--|
| | 3.03 | The ip ssh session timeout command has been introduced. |

3.72.7 ip ssh sftp

Description Access to a group of commands to manage *SFTP* server.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Group entry (config-sftp)

Synopsis (config)> **ip ssh sftp**

Example (config)> **ip ssh sftp**
(config-sftp)>

| History | Version | Description |
|---------|---------|---|
| | 3.04 | The ip ssh sftp command has been introduced. |

3.72.7.1 ip ssh sftp enable

Description Enable *SFTP* server.
Command with **no** prefix disables the server.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config-sftp)> **enable**

(config-sftp)> **no enable**

Example (config-sftp)> **enable**
Ssh::Manager: Enabled SFTP server.

(config-sftp)> **no enable**
Ssh::Manager: Disabled SFTP server.

History

| Version | Description |
|---------|--|
| 3.04 | The ip ssh sftp enable command has been introduced. |

3.72.7.2 ip ssh sftp permissive**Description**

Access to the *SFTP* server for all users without authentication.

Command with **no** prefix denies access.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-sftp)> permissive
```

```
(config-sftp)> no permissive
```

Example

```
(config-sftp)> permissive
```

```
(config-sftp)> no permissive
```

History

| Version | Description |
|---------|--|
| 3.04 | The ip ssh sftp permissive command has been introduced. |

3.72.7.3 ip ssh sftp root**Description**

Set root directory on *SFTP* server by default.

Command with **no** prefix resets root directory.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-sftp)> root (<directory> | <directory>)
```

```
(config-sftp)> no root
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---------------------------------|
| directory | <i>String</i> | Path to default root directory. |

Example

```
(config-sftp)> root files_ssd:/
Sftp::Server: A default root directory set to "files_ssd:/".
```

```
(config-sftp)> no root files_ssd:/
Sftp::Server: A default root directory reset.
```

History

| Version | Description |
|---------|--|
| 3.04 | The ip ssh sftp root command has been introduced. |

3.73 ip static

Description

Define translation rule for global and local IP addresses. If *interface* or *network* corresponds to the interface with [security level public](#), then the destination address translation (DNAT) will occur. If *to-address* corresponds to the interface with [security level public](#), then source address translation (SNAT) will occur. TCP/UDP port number is always treated as the destination port.

If *network* corresponds to a single address and this address is equal to *to-address*, then this rule will prohibit the translation of the specified address, which could have been done based on the specified rules [ip nat](#).

ip static rules have higher priority than the [ip nat](#) rules.

When using the translation rule, the router opens access to the specified port, so there is no need to make additional configuration of the firewall.

Command with **no** prefix enables the rule or removes the rule.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config)> ip static [ <protocol> ] ( <interface> | ( <address> <mask> ) )
    ( <port> through <end-port> <to-address> | <to-host> |
    <to-interface> ) |
    <port> ( <to-address> | <to-host> | <to-interface> ) [ <to-port> ] |
    <to-address> | <to-host> | <to-interface> )
```

```
(config)> no ip static [ <protocol> ] ( <interface> | ( <address> <mask> ) )
    ( <port> through <end-port> <to-address> | <to-host> |
    <to-interface> ) |
    <port> ( <to-address> | <to-host> | <to-interface> ) [ <to-port> ] |
    <to-address> | <to-host> | <to-interface> )
```

Arguments

| Argument | Value | Description |
|--------------|--------------------|---|
| protocol | tcp | <i>TCP</i> protocol. |
| | udp | <i>UDP</i> protocol. |
| | icmp | <i>ICMP</i> protocol. |
| | tcpudp | <i>TCP</i> and <i>UDP</i> protocols. |
| | gre | <i>GRE</i> protocol. |
| | ipip | <i>IP in IP</i> protocol. |
| interface | <i>Interface</i> | Input interface name (full name or alias). |
| comment | <i>String</i> | User's notes with symbol ! before them. |
| address | <i>IP address</i> | Along with mask <i>mask</i> sets the range of destination IP addresses that are to be translated. |
| mask | <i>IP-mask</i> | Translation range mask. There are two ways to enter the mask: the canonical form (for example, 255 . 255 . 255 . 0) and the form of prefix bit length (for example, /24). |
| port | <i>Integer</i> | TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated. |
| end-port | <i>Integer</i> | The end of the range of ports. |
| to-address | <i>IP address</i> | The destination address after translation. |
| to-host | <i>MAC address</i> | The destination MAC address after translation. Only MAC address from known hosts are accepted. If the known host is deleted, then the associated rules will be deleted too. |
| to-port | <i>Integer</i> | TCP/UDP port number after translation. If not specified, the destination port remains the same. |
| to-interface | <i>Interface</i> | Interface name after translation. |

Example

Let there be a router between the “local” network 172.16.1.0/24 ([security level private](#)) and “global” network 10.0.0.0/16 ([security level public](#)). It is required that all requests coming to the “global” interface of this router on port 80 to be broadcast to the “local” server with the address 172.16.1.33. The sequence of commands to implement the required schema might look like this:

```
(config)> interface Home ip address 192.168.1.1/24
Network::Interface::Ip: "Bridge0": IP address is 192.168.1.1/24.
```

```
(config)> ip static tcp ISP 80 172.16.1.33 80
Network::StaticNat: Static NAT rule has been added.
```

```
(config)> ip static tcp ISP 21 00:0e:c6:a1:22:11 !test
Network::StaticNat: Static NAT rule is already there.
```

```
(config)> ip static disable
Network::StaticNat: Static NAT disable unchanged.
```

```
(config)> no ip static disable
Network::StaticNat: Static NAT rule enabled.
```

```
(config)> no ip static
Network::StaticNat: Static NAT rules have been removed.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ip static command has been introduced. |
| 2.06 | The to-host argument has been added. |

3.74 ip static rule

Description Disable IP address translation rule or set rule operation time by schedule. Command with **no** prefix enables the rule or removes the rule schedule.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> ip static rule <index> (disable | schedule <schedule>)
(config)> no ip static rule <index> (disable | schedule)
```

Arguments

| Argument | Value | Description |
|----------|-----------------|--|
| index | <i>Integer</i> | The translation rule number. |
| disable | <i>Keyword</i> | Disable the translation rule. |
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(config)> ip static rule 0 schedule test_schedule
Network::StaticNat: Static NAT rule schedule applied.
```

```
(config)> ip static rule 0 disable
Network::StaticNat: Static NAT rule disabled.
```

```
(config)> no ip static rule 0 disable
Network::StaticNat: Static NAT rule enabled.
```

```
(config)> no ip static rule 0 schedule
Network::StaticNat: Static NAT rule schedule removed.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip static rule command has been introduced. |

3.75 ip telnet

Description Access to a group of commands to manage Telnet server.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Group entry (config-telnet)

Synopsis (config)> **ip telnet**

Example (config)> **ip telnet**
(config-telnet)>

History

| Version | Description |
|---------|---|
| 2.08 | The ip telnet command has been introduced. |

3.75.1 ip telnet lockout-policy

Description Set Telnet bruteforce detection parameters for public interfaces. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config-telnet)> **lockout-policy** <threshold> [<duration> [<observation-window>]]

(cconfig-telnet)> **no lockout-policy**

Arguments

| Argument | Value | Description |
|--------------------|----------------|---|
| threshold | <i>Integer</i> | The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 4 to 20. |
| duration | <i>Integer</i> | An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 60. |
| observation-window | <i>Integer</i> | Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 10. |

Example

```
(config-telnet)> lockout-policy 10 30 2
Telnet::Server: Bruteforce detection is reconfigured.
```

```
(config-telnet)> no lockout-policy
Telnet::Server: Bruteforce detection is disabled.
```

```
(config-telnet)> lockout-policy 0
Telnet::Server: Bruteforce detection is enabled.
```

History

| Version | Description |
|---------|--|
| 2.08 | The ip telnet lockout-policy command has been introduced. |

3.75.2 ip telnet port

Description

Specify port number for telnet connection. By default, 23 port number is used.
Command with **no** prefix resets port number to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-telnet)> port <number>
```

```
(config-telnet)> no port
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| number | <i>Integer</i> | Port number. Can take values in the range from 1 to 65535 inclusively. |

Example (config-telnet)> **port 2525**
Telnet::Server: Port unchanged.

(config-telnet)> **no port**
Telnet::Server: Port unchanged.

History

| Version | Description |
|---------|--|
| 2.08 | The ip telnet port command has been introduced. |

3.75.3 ip telnet security-level

Description Set Telnet security level. By default, private value is set.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config-telnet)> **security-level (public | private | protected)**

Arguments

| Argument | Value | Description |
|-----------|----------------|--|
| public | <i>Keyword</i> | Access to the Telnet server is allowed for public, private and protected interfaces. |
| private | <i>Keyword</i> | Access to the Telnet server is allowed for private interfaces. |
| protected | <i>Keyword</i> | Access to the Telnet server is allowed for private and protected interfaces. |

Example (config-telnet)> **security-level protected**
Telnet::Manager: Security level changed to protected.

History

| Version | Description |
|---------|--|
| 2.08 | The ip telnet security-level command has been introduced. |

3.75.4 ip telnet session max-count

Description Set the maximal number of simultaneous sessions for telnet connection. By default, 4 value is used.

Command with **no** prefix resets count to default.

Prefix no Yes

Change settings Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-telnet)> session max-count <count>
```

```
(config-telnet)> no session max-count
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| count | <i>Integer</i> | The maximal number of simultaneous sessions. Can take values in the range from 1 to 4 inclusively. |

Example

```
(config-telnet)> session max-count 4
Telnet::Server: The maximum session count set to 4.
```

```
(config-telnet)> no session max-count
Telnet::Server: The maximum session count reset to 4.
```

History

| Version | Description |
|---------|---|
| 2.08 | The ip telnet session max-count command has been introduced. |

3.75.5 ip telnet session timeout

Description Set the lifetime of inactive session for telnet connection. By default, 300 value is used which means that the function of activity tracking within a session is disabled.

Command with **no** prefix resets timeout to default.

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-telnet)> session timeout <timeout>
```

```
(config-telnet)> no session timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | The lifetime of inactive session. Can take values in the range from 5 to $2^{32}-1$ seconds inclusively. |

Example

```
(config-telnet)> session timeout 600
Telnet::Server: A session timeout value set to 600 seconds.
```

```
(config-telnet)> no session timeout
Telnet::Server: A session timeout reset.
```

History

| Version | Description |
|---------|---|
| 2.08 | The ip telnet session timeout command has been introduced. |

3.76 ip traffic-shape host

Description

Set the limit of data rate on a specified known host in both directions. By default speed is not limited.

Command with **no** prefix removes the setting for specified host. If you use no arguments, the entire list of rate limits for all hosts will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config)> ip traffic-shape host <mac> rate <rate> [ asymmetric
<upstream-rate> ] [ schedule <schedule> ]
```

```
(config)> no ip traffic-shape host [ <mac> ]
```

Arguments

| Argument | Value | Description |
|---------------|--------------------|--|
| mac | <i>MAC address</i> | MAC address of the known host. |
| rate | <i>Integer</i> | Value of data download rate in Kbps. Limit could be in the range from 64 Kbps to 1 Gbps. |
| upstream-rate | <i>Integer</i> | Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps. |
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(config)> ip traffic-shape host a8:1e:82:81:f1:21 rate 80
TrafficControl::Manager: "a8:1e:82:81:f1:21" host rate limited ►
to DL 80 / UL 80 Kbits/sec.
```

```
(config)> ip traffic-shape host a8:1e:82:81:f1:21 rate 80 ►
asymmetric 64
TrafficControl::Manager: "a8:1e:82:81:f1:21" host rate limited ►
to DL 80 / UL 64 Kbits/sec..
```

```
(config)> ip traffic-shape host a8:1e:82:81:f1:21 rate 80 ►
asymmetric 64 schedule Update
TrafficControl::Manager: "a8:1e:82:81:f1:21" host rate limited ►
to DL 80 / UL 64 Kbits/sec (controlled by schedule Update).
```

```
(config)> no ip traffic-shape host a8:1e:82:81:f1:21
TrafficControl::Manager: Rate limit removed for host ►
"a8:1e:82:81:f1:21".
```

```
(config)> no ip traffic-shape host a8:1e:82:81:f1:21
TrafficControl::Manager: Rate limit removed for host ►
"a8:1e:82:81:f1:21".
```

```
(config)> no ip traffic-shape host
TrafficControl::Manager: Rate limits for all hosts removed.
```

History

| Version | Description |
|---------|---|
| 2.05 | The ip traffic-shape host command has been introduced. |
| 2.08 | The schedule argument was added. |
| 3.04 | The upstream-rate argument was added. |

3.77 ip traffic-shape unknown-host

Description

Set the data rate limitation for unregistered devices in both directions. By default, speed is unlimited.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config)> ip traffic-shape unknown-host rate <rate> [ asymmetric
<upstream-rate> ]
```

```
(config)> no ip traffic-shape unknown-host rate
```

Arguments

| Argument | Value | Description |
|---------------|----------------|---|
| rate | <i>Integer</i> | The data download rate in Kbps. Value could be in the range from 64 Kbps to 1 Gbps. |
| upstream-rate | <i>Integer</i> | Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps. |

Example

```
(config)> ip traffic-shape unknown-host rate 80
TrafficControl::Manager: Rate limit for unknown hosts set to 80 ►
Kbits/sec.
```

```
(config)> ip traffic-shape unknown-host rate 80 asymmetric 64
TrafficControl::Manager: Rate limit for unknown hosts set to ►
80/64 Kbits/sec.
```

```
(config)> no ip traffic-shape unknown-host rate
TrafficControl::Manager: Rate limit for unknown hosts removed.
```

History

| Version | Description |
|---------|---|
| 2.09 | The ip traffic-shape unknown-host command has been introduced. |
| 3.04 | The upstream-rate argument was added. |

3.78 ipv6 local-prefix

Description

Configure a local (ULA) prefix. Argument can be a literal prefix or **default**, which generates a persistent unique prefix automatically.

Command with **no** prefix disables the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> ipv6 local-prefix (default | <prefix>)
```

```
(config)> no ipv6 local-prefix [default | <prefix>]
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| default | <i>Keyword</i> | Generate persistent unique prefix. |
| prefix | <i>Prefix</i> | Local ULA prefix. Must be a valid prefix in the block fd00::/8 with a prefix length no longer than 48. |

Example

```
(config)> ipv6 local-prefix default
Ip6::Prefixes: Default ULA prefix enabled.
```

```
(config)> ipv6 local-prefix fd01:db8:43::/48
Ip6::Prefixes: Added static prefix: fd01:db8:43::/48.
```

```
(config)> no ipv6 local-prefix default
Ip6::Prefixes: Default ULA prefix disabled.
```

```
(config)> no ipv6 local-prefix fd01:db8:43::/48
Ip6::Prefixes: Deleted static prefix: fd01:db8:43::/48.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ipv6 local-prefix command has been introduced. |

3.79 ipv6 name-server

Description

Configure DNS server IPv6-addresses. Addresses saved in this fashion are called static as opposite to dynamic — as registered by *PPP* or *DHCP* services.

ipv6 name-server command can be entered multiple times if several DNS server addresses need to be setup.

Command with **no** prefix removes the specified DNS server address from the static and the active lists if the command is furnished with arguments, or clears the list of static addresses if the command has no arguments.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config)> ipv6 name-server <address> [ <domain> [ on <interface> ] ]
```

```
(config)> no ipv6 name-server [ <address> [ <domain> [ on <interface> ] ] ]
```

Arguments

| Argument | Value | Description |
|-----------|---------------------|--|
| address | <i>IPv6-address</i> | Name server address. |
| domain | <i>String</i> | Domain for which the server will be used. In resolving names the DNS-proxy first selects the address of the server with name best matching the requested domain. If the domain is not specified, the server will be used for all requests. Use "" as default domain. |
| interface | <i>Interface</i> | Interface name to configure. |

Example

```
(config)> ipv6 name-server 2001:4860:4860::8888
Dns::Manager: Name server 2001:4860:4860::8888 added, domain ►
(default).
```

```
(config)> ipv6 name-server 123::456 "" on ISP
Dns::InterfaceSpecific: "GigabitEthernet1": name server 123::456 ►
added, domain (default).
```

```
(config)> ipv6 name-server 2001:4860:4860::8888 google.com
Dns::Manager: Name server 2001:4860:4860::8888 added, domain ►
google.com.
```

```
(config)> no ipv6 name-server 2001:4860:4860::8888
Dns::Manager: Name server 2001:4860:4860::8888, domain (default) ►
deleted.
```

```
(config)> no ipv6 name-server 123::456 "" on ISP
Dns::InterfaceSpecific: Name server 123::456 deleted, domain ►
(default).
```

```
(config)> no ipv6 name-server 2001:4860:4860::8888 google.com
Dns::Manager: Name server 2001:4860:4860::8888, domain google.com ►
deleted.
```

```
(config)> no ipv6 name-server
Dns::Manager: Static name server list cleared.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ipv6 name-server command has been introduced. |
| 4.00 | The interface argument was added. |

3.80 ipv6 pass

Description

Enable Pass Through mode on the router for IPv6-packets. By default, the feature is disabled.

Command with **no** prefix disables the function.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> ipv6 pass through <wan-iface> <lan-iface>
```

```
(config)> no ipv6 pass
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--------------------------------------|
| wan-iface | <i>Interface</i> | Full WAN-interface name or an alias. |

| Argument | Value | Description |
|-----------|------------------|--------------------------------------|
| lan-iface | <i>Interface</i> | Full LAN-interface name or an alias. |

Example

```
(config)> ipv6 pass through ISP Home
Ip6::Pass: Configured pass from "GigabitEthernet1" to "Bridge0".
```

```
(config)> no ipv6 pass
Ip6::Pass: Disabled.
```

History

| Version | Description |
|---------|---|
| 2.06 | The ipv6 pass command has been introduced. |

3.81 ipv6 route

Description

Add a static route to the routing table to describe a rule of IPv6-packets transmission through a particular gateway or network interface.

As the destination network keyword `default` can be specified. In this case, a default route will be created.

Command with **no** prefix removes the route with the specified parameters.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config)> ipv6 route (<prefix> | default) (<interface> [<gateway>] | <gateway>)
```

```
(config)> no ipv6 route (<prefix> | default) (<interface> [<gateway>] | <gateway>)
```

Arguments

| Argument | Value | Description |
|-----------|-------------------|---|
| prefix | <i>Prefix</i> | IPv6 prefix. |
| default | <i>Keyword</i> | Default prefix. |
| interface | <i>Interface</i> | Full interface name or an alias. |
| gateway | <i>IP address</i> | IP address of the router in a directly connected network. |

Example

```
(config)> ipv6 route 2002:c100:aeb5::/48 ISP
route added
```

```
(config)> no ipv6 route 2002:c100:aeb5::/48 ISP
route erased
```

```
(config)> ipv6 route 2002:c100:aeb5:100::/56 2002:c100:aeb5::33
route added
```

```
(config)> no ipv6 route 2002:c100:aeb5:100::/56 2002:c100:aeb5::33
route erased
```

History

| Version | Description |
|---------|--|
| 2.00 | The ipv6 route command has been introduced. |
| 2.11 | gateway argument has been added. |

3.82 ipv6 static

Description Define the rule to allow incoming connection to a specified port of a registered home network device.

Command with **no** prefix removes the rule.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ipv6 static <protocol> (<interface> <mac> | <mac>) [<port> [
through <end-port> ]]
```

```
(config)> no ipv6 static [<protocol> (<interface> <mac> | <mac>) [<port> [
through <end-port> ]]]
```

Arguments

| Argument | Value | Description |
|-----------|-------------|---|
| protocol | tcp | TCP protocol. |
| | udp | UDP protocol. |
| | tcpudp | TCP and UDP protocol. |
| | icmp6 | ICMPv6 protocol. |
| interface | Interface | Input interface name (full name or an alias). |
| mac | MAC address | MAC address of host. |
| port | Integer | TCP/UDP port number for which incoming request comes. |
| end-port | Integer | The end of the range of ports. |

Example

```
(config)> ipv6 static tcp ISP 04:d1:c3:24:bc:19 81
Ip6::Firewall: Static rule added.
```

```
(config)> ipv6 static tcp 04:d1:c3:24:bc:19 8080
Ip6::Firewall: Static rule added.
```



```
(config)> ipv6 static tcp ISP 04:d1:c3:24:bc:19 8080 through 8081
Ip6::Firewall: Static rule added.
```

```
(config)> ipv6 static icmpv6 ISP 04:d1:c3:24:bc:19
Ip6::Firewall: Static rule added.
```

```
(config)> no ipv6 static icmpv6 ISP 04:d1:c3:24:bc:19
Ip6::Firewall: Static rule removed.
```

```
(config)> no ipv6 static
Ip6::Firewall: Static rules cleared.
```

History

| Version | Description |
|---------|---|
| 2.12 | The ipv6 static command has been introduced. |
| 4.00 | The icmpv6 argument was added. |

3.83 ipv6 subnet

Description Access to a group of commands to configure a LAN IPv6 segment. If the segment is not found, the command tries to create it.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-subnet)

Synopsis

```
(config)> ipv6 subnet <name>
(config)> no ipv6 subnet [ <name> ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------------------|
| name | <i>String</i> | Subnet name or an alias. |

Example

```
(config)> ipv6 subnet Default
(config-subnet)>
```

History

| Version | Description |
|---------|---|
| 2.00 | The ipv6 subnet command has been introduced. |

3.83.1 ipv6 subnet bind

Description Bind the subnet to an interface.

Command with **no** prefix cancels binding.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-subnet)> bind <bind>
```

```
(config-subnet)> no bind
```

Arguments

| Argument | Value | Description |
|----------|-----------|----------------------------------|
| bind | Interface | Full interface name or an alias. |

Example

```
(config-subnet)> bind WifiMaster0/AccessPoint1  
Ip6::Subnets: Interface "WifiMaster0/AccessPoint1" bound to ▶  
subnet "Default".
```

```
(config-subnet)> no bind  
Ip6::Subnets: Interface unbound from subnet "Default".
```

History

| Version | Description |
|---------|--|
| 2.00 | The ipv6 subnet bind command has been introduced. |

3.83.2 ipv6 subnet mode

Description Select the address configuration mode for hosts in the subnet. Exclusive options are **dhcp** and **slaac**. The former will enable a local DHCPv6 server for the purposes of address assignment, and the latter will enable SLAAC (Stateless Address Autoconfiguration).

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-subnet)> mode <mode>
```

```
(config-subnet)> no mode
```

Arguments

| Argument | Value | Description |
|----------|-------|--|
| mode | slaac | Enable SLAAC (stateless autoconfiguration). |
| | dhcp | Enable DHCPv6 server (stateful autoconfiguration). |

Example

```
(config-subnet)> mode dhcp
Ip6::Subnets: Subnet "Default" enabled as DHCP.
```

```
(config-subnet)> no mode
Ip6::Subnets: Subnet "Default" disabled.
```

| Version | Description |
|---------|--|
| 2.00 | The ipv6 subnet mode command has been introduced. |

3.83.3 ipv6 subnet number

Description Assign the subnet ID, which will determine the advertised prefix for the segment. Must be unique across subnets.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

```
(config-subnet)> number <number>
```

| Argument | Value | Description |
|----------|----------------|-------------------|
| number | <i>Integer</i> | Unique subnet ID. |

Example

```
(config-subnet)> number 2
Ip6::Subnets: Number 2 assigned to subnet "Default".
```

| Version | Description |
|---------|--|
| 2.00 | The ipv6 subnet number command has been introduced. |

3.83.4 ipv6 subnet prefix delegate

Description Set delegated prefix length.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-subnet)> prefix delegate <delegate>
```

```
(config-subnet)> no prefix delegate
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| delegate | <i>Integer</i> | The value must be less than prefix length. |

Example

```
(config-subnet)> prefix delegate 63
Network::Ip6::Subnets: Delegate length is /63 assigned to subnet ►
"Default".
```

```
(config-subnet)> no prefix delegate
Network::Ip6::Subnets: Prefix delegation disabled for subnet ►
"Default".
```

History

| Version | Description |
|---------|---|
| 4.00 | The ipv6 subnet prefix delegate command has been introduced. |

3.83.5 ipv6 subnet prefix length

Description

Set subnet prefix length. By default, /64 prefix length is set.

Command with **no** prefix resets to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-subnet)> prefix length <length>
```

```
(config-subnet)> no prefix length
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| length | <i>Integer</i> | Prefix length can take values in the range from /32 to /64. |

Example

```
(config-subnet)> prefix length 62
Network::Ip6::Subnets: Length is /62 assigned to subnet "Default".
```

```
(config-subnet)> no prefix length
Network::Ip6::Subnets: Length reset to default for subnet ►
"Default".
```

History

| Version | Description |
|---------|---|
| 4.00 | The ipv6 subnet prefix length command has been introduced. |

3.84 isolate-private

Description Prohibit data transfer between any interfaces with [security level](#) private. Enabled by default.

Command with **no** prefix cancels the command, allowing data transfer between private interfaces.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis (config)> **isolate-private**

(config)> **no isolate-private**

Example (config)> **isolate-private**
Netfilter::Manager: Private networks isolated.

(config)> **no isolate-private**
Netfilter::Manager: Private networks not isolated.

History

| Version | Description |
|---------|---|
| 2.00 | The isolate-private command has been introduced. |

3.85 kabinet

Description Access to a group of commands to configure KAbINET authenticator parameters.

Command with **no** prefix resets all parameters to default.

Prefix no Yes

Change settings Yes

Multiple input No

Group entry (kabinet)

Synopsis (config)> **kabinet**

(config)> **no kabinet**

Example (config)> **kabinet**
(kabinet)>

```
(config)> no kabinet
Kabinet::Authenticator: A configuration reset.
```

History

| Version | Description |
|---------|---|
| 2.02 | The kabinet command has been introduced. |

3.85.1 kabinet access-level

Description

Set an access level for KAbINET authenticator. By default, access level `internet` is used.

Command with **no** prefix resets level to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(kabinet)> access-level <level>
```

```
(kabinet)> no access-level
```

Arguments

| Argument | Value | Description |
|----------|----------|---------------------|
| level | lan | Access level value. |
| | internet | |

Example

```
(kabinet)> access-level lan
Kabinet::Authenticator: An access level set to "lan".
```

```
(kabinet)> access-level internet
Kabinet::Authenticator: An access level set to "internet".
```

```
(kabinet)> no access-level
Kabinet::Authenticator: An access level reset to "internet".
```

History

| Version | Description |
|---------|--|
| 2.02 | The kabinet access-level command has been introduced. |

3.85.2 kabinet interface

Description

Bind KAbINET authenticator to the specified interface.

Command with **no** prefix unbinds interface.

Prefix no

Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> interface <interface>
(kabinet)> no interface
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(kabinet)> interface [Tab]

Usage template:
  interface {interface}

Choose:
  GigabitEthernet1
  ISP
  WifiMaster0/AccessPoint2
  WifiMaster1/AccessPoint1
  WifiMaster0/AccessPoint3
  WifiMaster0/AccessPoint0
  AccessPoint
```

```
(kabinet)> interface ISP
Kabinet::Authenticator: Bound to GigabitEthernet1.
```

```
(kabinet)> no interface
Kabinet::Authenticator: Interface binding cleared.
```

History

| Version | Description |
|---------|---|
| 2.02 | The kabinet interface command has been introduced. |

3.85.3 kabinet password

Description Set a password for KAbINET authenticator. By default, password is not set. Command with **no** prefix clears the password.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> password <password>
```

```
(kabinet)> no password
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------------|
| password | <i>String</i> | The password for authentication. |

Example

```
(kabinet)> password 123456789
Kabinet::Authenticator: A password set.
```

```
(kabinet)> no password
Kabinet::Authenticator: A password cleared.
```

History

| Version | Description |
|---------|--|
| 2.02 | The kabinet password command has been introduced. |

3.85.4 kabinet port

Description

Set the server port for KAbINET authenticator. By default, values 8314 or 8899 are used.

Command with **no** prefix resets port to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(kabinet)> port <port>
```

```
(kabinet)> no port
```

Arguments

| Argument | Value | Description |
|----------|----------------|------------------|
| port | <i>Integer</i> | The port number. |

Example

```
(kabinet)> port 12345
Kabinet::Authenticator: A server port set.
```

```
(kabinet)> no port
Kabinet::Authenticator: A server port reset.
```

History

| Version | Description |
|---------|--|
| 2.14 | The kabinet port command has been introduced. |

3.85.5 kabinet protocol-version

Description Set version of KAbINET authenticator protocol. By default, protocol version 2 is used.

Command with **no** prefix resets protocol to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> protocol-version version
(kabinet)> no protocol-version
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------|
| version | <i>String</i> | Version of protocol. |

Example

```
(kabinet)> protocol-version 1
Kabinet::Authenticator: A protocol version set to "1".
```

```
(kabinet)> no protocol-version
Kabinet::Authenticator: A protocol version reset to "2".
```

History

| Version | Description |
|---------|--|
| 2.02 | The kabinet protocol-version command has been introduced. |

3.85.6 kabinet server

Description Set an IP address of KAbINET authentication server. By default, IP 10.0.0.1 is used.

Command with **no** prefix resets the address.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> server address
(kabinet)> no server
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--------------------------------|
| address | <i>IP address</i> | Authentication server address. |

Example

```
(kabinet)> server 77.222.111.1
Kabinet::Authenticator: A server address set.
```

```
(kabinet)> no server
Kabinet::Authenticator: A server address reset.
```

History

| Version | Description |
|---------|--|
| 2.02 | The kabinet server command has been introduced. |

3.86 known host

Description Set known host.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> known host <name> <mac>
```

```
(config)> no known host [ mac ]
```

Arguments

| Argument | Value | Description |
|----------|--------------------|----------------------|
| name | <i>String</i> | Arbitrary host name. |
| mac | <i>MAC address</i> | MAC address. |

Example

```
(config)> known host MY 00:0e:c6:a2:22:a1
Core::KnownHosts: New host "MY" has been created.
```

```
(config)> no known host 00:0e:c6:a2:22:a1
Core::KnownHosts: Host 00:0e:c6:a1:26:a8 has been removed.
```

History

| Version | Description |
|---------|--|
| 2.00 | The known host command has been introduced. |

3.87 mdns

Description Access to a group of commands to manage *mDNS* service.

Prefix no No

| | |
|------------------------|--------------------------------|
| Change settings | No |
| Multiple input | No |
| Group entry | (config-mdns) |
| Synopsis | <code>(config)> mdns</code> |

Example

```
(config)> mdns
Core::Configurator: Done.
(config-mdns)>
```

| History | Version | Description |
|----------------|---------|--|
| | 3.07 | The mdns command has been introduced. |

3.87.1 mdns reflector disable

Description Forcibly disable transparency mode between home network segments, irrespective of segment isolation (see the [interface security-level](#) command).

Command with **no** prefix disables the setting.

| | |
|------------------------|---|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | No |
| Synopsis | <code>(config-mdns)> reflector disable</code> <code>(config-mdns)> no reflector disable</code> |

Example

```
(config-mdns)>reflector disable
Mdns::Manager: Reflector disabled.

(config-mdns)>no reflector disable
Mdns::Manager: Reflector enabled.
```

| History | Version | Description |
|----------------|---------|--|
| | 3.07 | The mdns reflector disable command has been introduced. |

3.87.2 mdns reflector enforce

Description Forcibly enable transparency mode between home network segments, irrespective of segment isolation (see the [interface security-level](#) command).

Command with **no** prefix disables the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-mdns)> reflector enforce
(config-mdns)> no reflector enforce
```

Example

```
(config-mdns)>reflector enforce
Mdns::Manager: Reflector enforced.
```

```
(config-mdns)>no reflector enforce
Mdns::Manager: Reflector unenforced.
```

History

| Version | Description |
|---------|--|
| 3.07 | The mdns reflector enforce command has been introduced. |

3.88 mws acquire

Description Attach new device to [MWS](#).
Command with **no** prefix stops the acquisition.

Prefix no Yes

Change settings No

Multiple input No

Synopsis

```
(config)> mws acquire <candidate> [eula-accept] [dpn-accept]
[no-update]
(config)> no mws acquire <candidate>
```

Arguments

| Argument | Value | Description |
|-------------|----------------|---|
| candidate | <i>String</i> | Device ID — MAC address or CID. |
| eula-accept | <i>Keyword</i> | Send eula accept command. |
| dpn-accept | <i>Keyword</i> | Send Device Privacy Notice accept. |
| no-update | <i>Keyword</i> | Acquisition without firmware update confirmation. |

Example

```
(config)> mws acquire ab1409a2-0f87-11e8-8f23-3d5f5921b253 ►
eula-accept
```

```
Mws::Controller: Candidate "ab1409a2-0f87-11e8-8f23-3d5f5921b253" ▶
acquire started.
```

```
(config)> mws acquire 7207838e-af7d-11e6-8029-25463bd03811 ▶
eula-accept dpn-accept no-update
Mws::Controller: Candidate "7207838e-af7d-11e6-8029-25463bd03811" ▶
acquire started.
```

```
(config)> no mws acquire 60:31:97:3f:36:00
Mws::Controller: Candidate "60:31:97:3f:36:00" acquire stopped.
```

History

| Version | Description |
|---------|---|
| 2.15 | The mws acquire command has been introduced. |

3.89 mws auto-ap-shutdown

Description Enable automatic shutdown of the Wi-Fi System Extenders when communication with the Controller is inaccessible. By default, the setting is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis (config)> **mws auto-ap-shutdown**

(config)> **no mws auto-ap-shutdown**

Example (config)> **mws auto-ap-shutdown**
Mws::Controller: Automatic access points shutdown enabled.

(config)> **no mws auto-ap-shutdown**
Mws::Controller: Automatic access points shutdown disabled.

History

| Version | Description |
|---------|--|
| 3.08 | The mws auto-ap-shutdown command has been introduced. |

3.90 mws backhaul shutdown

Description Disable hidden wireless backhaul access points for *MWS* service. By default, the setting is enabled.

Command with **no** prefix enables hidden wireless backhaul access points.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config)> mws backhaul shutdown
(config)> no mws backhaul shutdown
```

Example

```
(config)> mws backhaul shutdown
Mws::Controller: Backhaul disabled.

(config)> no mws backhaul shutdown
Mws::Controller: Backhaul enabled.
```

History

| Version | Description |
|---------|---|
| 3.04 | The mws backhaul shutdown command has been introduced. |

3.91 mws log stp

Description Enable STP logging for the interface. Allows you to track sent and received BPDU packets.

Command with **no** prefix disables logging for specified interface. If you use no argument, the entire list of STP logging will be removed.

Prefix no Yes**Change settings** No**Multiple input** Yes

Synopsis

```
(config)> mws log stp <interface>
(config)> no mws log stp [ <interface> ]
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(config)> mws log stp Bridge0
Network::Interface::Rtx::WifiController: Enabled STP logging for ►
"Bridge0".
```

```
(config)> no mws log stp Bridge0
Network::Interface::Rtx::WifiController: Disabled STP logging ►
for "Bridge0".
```

```
(config)> no mws log stp
Network::Interface::Rtx::WifiController: Disabled all STP logging.
```

History

| Version | Description |
|---------|---|
| 3.06 | The mws log stp command has been introduced. |

3.92 mws member

Description Command with **no** prefix removes *MWS* member. If you use no argument, the entire list of members will be cleared.

Prefix no Yes

Change settings No

Multiple input No

Synopsis `(config)> no mws member [member]`

Arguments

| Argument | Value | Description |
|----------|---------------|---------------------------------|
| member | <i>String</i> | Device ID — MAC address or CID. |

Example

```
(config)> mws no member 2937a388-0d00-11e7-8029-7119319f930e
Mws::MemberList: Member 2937a388-0d00-11e7-8029-7119319f930e ►
pending factory reset.
```

History

| Version | Description |
|---------|--|
| 2.15 | The mws member command has been introduced. |

3.93 mws member debug

Description Enable *MWS* member debug. By default, setting is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> mws member <member> debug
```

```
(config)> no mws member <member> debug
```

Arguments

| Argument | Value | Description |
|----------|---------------|---------------------------------|
| member | <i>String</i> | Device ID — MAC address or CID. |

Example

```
(config)> mws member 60:31:97:3c:11:12 debug
Mws::MemberList: Member "60:31:97:3c:11:12" ►
(7207838e-af7d-11e6-8011-25463bd03812) RCI debug enabled.
```

```
(config)> no mws member 60:31:97:3c:11:12 debug
Mws::MemberList: Member "60:31:97:3c:11:12" ►
(7207838e-af7d-11e6-8011-25463bd03812) RCI debug disabled.
```

History

| Version | Description |
|---------|--|
| 3.05 | The mws member debug command has been introduced. |

3.94 mws member dpn-accept

Description

Accept *DPN* for *MWS* member.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(config)> mws member <member> dpn-accept
```

Arguments

| Argument | Value | Description |
|----------|---------------|---------------------------------|
| member | <i>String</i> | Device ID — MAC address or CID. |

Example

```
(config)> mws member 7207838e-af7d-11e6-8029-25463bd03828 ►
dpn-accept
Mws::Controller: Candidate "ab1409a2-0f87-11e8-8f23-3d5f5921b253" ►
acquire started.
```

History

| Version | Description |
|---------|---|
| 3.05 | The mws member dpn-accept command has been introduced. |

3.95 mws member reboot

Description Reboot the *MWS* member. The process of rebooting extenders should be displayed in the `show mws member` command output.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> mws member <member> reboot [<interval>]`

| Argument | Value | Description |
|----------|----------------|---|
| member | <i>String</i> | Device ID — MAC-address or CID. |
| interval | <i>Integer</i> | Timeout for reboot in seconds. Can take values in the range from 0 to 60 inclusively). If not specified, the reboot will be executed immediately. |

Example

```
(config)> mws member 7207838e-af7d-11e6-8029-25463bd03828 reboot ►
10
Mws::MemberList: Member "50:ff:21:1a:b1:f2" ►
(7207838e-af7d-11e6-8029-25463bd03828) pending reboot.
```

| Version | Description |
|---------|---|
| 3.08 | The <code>mws member reboot</code> command has been introduced. |

3.96 mws member update check

Description Check for an update for the *MWS* member.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> mws member <member> update check`

| Argument | Value | Description |
|----------|---------------|---------------------------------|
| member | <i>String</i> | Device ID — MAC address or CID. |

Example `(config)> mws member 21:ff:22:32:18:af update check`
 Mws::Controller::Updater: "21:ff:22:32:18:af": checking for an update.

History

| Version | Description |
|---------|---|
| 4.00 | The mws member update check command has been introduced. |

3.97 mws member update start

Description Start the *MWS* member update.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> mws member <member> update start`

Arguments

| Argument | Value | Description |
|----------|---------------|---------------------------------|
| member | <i>String</i> | Device ID — MAC address or CID. |

Example `(config)> mws member 21:ff:22:32:18:af update start`
 Mws::Controller::Updater: "21:ff:22:32:18:af": pending update, ▶
 "(auto)" sandbox.

History

| Version | Description |
|---------|---|
| 4.00 | The mws member update start command has been introduced. |

3.98 mws member update stop

Description Stop the *MWS* member update.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> mws member <member> update stop`

| Argument | Value | Description |
|----------|---------------|---------------------------------|
| member | <i>String</i> | Device ID — MAC address or CID. |

Example

```
(config)> mws member 21:ff:22:32:18:af update stop
Mws::Controller::Updater: "21:ff:22:32:18:af": update stopped.
```

| Version | Description |
|---------|--|
| 4.00 | The mws member update stop command has been introduced. |

3.99 mws reboot

Description Reboot the whole *MWS*.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(config)> mws reboot
```

Example

```
(config)> mws reboot
Mws::Controller: Pending reboot Modular Wi-Fi System in 10 ►
seconds.
```

| Version | Description |
|---------|--|
| 3.08 | The mws reboot command has been introduced. |

3.100 mws revisit

Description Re-read status of potential *MWS* member.

Prefix no Yes

Change settings No

Multiple input No

Synopsis

```
(config)> mws revisit <candidate>
(config)> no mws revisit <candidate>
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---------------------------------|
| candidate | <i>String</i> | Device ID — MAC address or CID. |

Example

```
(config)> mws revisit 50:ff:20:08:71:62
Mws::Controller: Candidate "50:ff:20:08:71:62" revisit started.
```

```
(config)> mws no revisit 50:ff:20:08:71:62
Mws::Controller: Candidate "50:ff:20:08:71:62" revisit stopped.
```

History

| Version | Description |
|---------|---|
| 2.15 | The mws revisit command has been introduced. |

3.101 mws stp priority

Description

Set the STP Bridge Priority. By default, the value 32768 is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

No

Multiple input

Yes

Synopsis

```
(config)> mws stp priority <priority>
```

```
(config)> no mws stp priority
```

Arguments

| Argument | Value | Description |
|----------|-------|--------------------------------|
| priority | 0 | The STP Bridge Priority value. |
| | 4096 | |
| | 8192 | |
| | 12288 | |
| | 16384 | |
| | 20480 | |
| | 24576 | |
| | 28672 | |
| | 32768 | |
| | 36864 | |
| | 40960 | |
| | 45056 | |
| | 49152 | |

| Argument | Value | Description |
|----------|-------|-------------|
| | 53248 | |

Example

```
(config)> mws stp priority 4096
Mws::Controller::Manager: Applied STP priority 4096.
```

```
(config)> no mws stp priority
Mws::Controller::Manager: STP priority reset to default (32768).
```

History

| Version | Description |
|---------|--|
| 4.01 | The mws stp priority command has been introduced. |

3.102 mws update start

Description

Start the *MWS* update.

If there are updates for members, then the members are updated sequentially. Then, if there is an update for the controller, then the controller update is started. If there are no updates, then nothing happens.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(config)> mws update start [controller | members]
```

Arguments

| Argument | Value | Description |
|------------|----------------|--|
| controller | <i>Keyword</i> | Update the controller, don't try to update members. If members update is running, the controller will be updated after them. |
| members | <i>Keyword</i> | Update a members, don't try to update the controller. |

Example

```
(config)> mws update start
Mws::Controller::Manager: Updating MWS.
```

```
(config)> mws update start controller
Mws::Controller::Manager: Updating controller.
```

```
(config)> mws update stop
Mws::Controller::Manager: Updating members.
```

History

| Version | Description |
|---------|--|
| 4.00 | The mws update start command has been introduced. |

3.103 mws update stop

Description Stop the *MWS* update.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> mws update stop`

Example `(config)> mws update stop`
Mws::Controller::Manager: Update stopped.

History

| Version | Description |
|---------|---|
| 4.00 | The mws update stop command has been introduced. |

3.104 mws zone

Description Limit the connection area of the client device within the specified *MWS* members.

Command with **no** prefix removes the specified setting. If you use no arguments, the entire list of restrictions will be removed.

Prefix no Yes

Change settings No

Multiple input Yes

Synopsis `(config)> mws zone <mac> <cid>`

`(config)> no mws zone [<mac> <cid>]`

Arguments

| Argument | Value | Description |
|----------|--------------------|--|
| mac | <i>MAC address</i> | MAC address of client device. It must be listed as a known host. |
| cid | <i>CID</i> | Identifier of <i>MWS</i> member. |

Example `(config)> mws zone 11:22:33:ec:58:e2 ▶`
`12298f60-d886-11e7-9396-176971eeb8d6`
Mws::Controller: Added zone 11:22:33:ec:58:e2 ▶
12298f60-d886-11e7-9396-176971eeb8d6.

`(config)> no mws zone 11:22:33:ec:58:e2 ▶`
`12298f60-d886-11e7-9396-176971eeb8d6`

```
Mws::Controller: Deleted zone 11:22:33:ec:58:e2 ▶
12298f60-d886-11e7-9396-176971eeb8d6.
```

```
(config)> no mws zone
Mws::Controller: Cleared all zones.
```

History

| Version | Description |
|---------|--|
| 3.06 | The mws zone command has been introduced. |

3.105 nextdns

Description Access to a group of commands to configure [NextDNS](#) profiles.

Prefix no No

Change settings No

Multiple input No

Group entry (nextdns)

Synopsis | (config)> **nextdns**

Example (config)> **nextdns**
Core::Configurator: Done.
(nextdns)>

History

| Version | Description |
|---------|---|
| 3.08 | The netxdns command has been introduced. |

3.105.1 nextdns assign

Description Assign profile of protection to the host. By default System profile is used for all hosts and local network segments.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis | (nextdns)> **assign** <host> <token> | **interface** <iface> <token>
| (nextdns)> **no assign** [*host* | **interface** <iface>]

Arguments

| Argument | Value | Description |
|----------|--------------------|----------------------------------|
| host | <i>MAC address</i> | MAC address to assign. |
| token | <i>Integer</i> | Authentication token (ID). |
| iface | <i>Interface</i> | Full interface name or an alias. |

Example

```
(nextdns)> assign 11:24:c4:54:bc:59 1f2a36
NextDns::Client: Reassociated host "11:24:c4:54:bc:59" with ►
profile "1f2a36".
```

```
(nextdns)> assign interface Home 1f2a36
NextDns::Client: Associated interface "Home" with profile ►
"1f2a36".
```

```
(nextdns)> no assign 11:24:c4:54:bc:59
NextDns::Client: Removed profile for host "11:24:c4:54:bc:59".
```

```
(nextdns)> no assign Bridge0
NextDns::Client: Removed profile for interface "Bridge0".
```

History

| Version | Description |
|---------|--|
| 3.08 | The nextdns assign command has been introduced. |

3.105.2 nextdns authenticate

Description Specify login for *NextDNS* account.

Prefix no No

Change settings No

Multiple input No

Synopsis | (nextdns)> **authenticate** *<login>* *<password>* [*<pin>*]

| (nextdns)> **no authenticate**

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------------------|
| login | <i>String</i> | Login to <i>NextDNS</i> account. |
| password | <i>String</i> | Password to <i>NextDNS</i> account. |
| pin | <i>String</i> | Pin to <i>NextDNS</i> account. |

Example

```
(nextdns)> authenticate account@gmail.com 123456789 1234
NextDns::Client: Authenticated successfully.
```


| History | Version | Description |
|---------|---------|--|
| | 3.08 | The nextdns authenticate command has been introduced. |

3.105.3 nextdns authtoken

Description Specify authentication token for *NextDNS* account.
Command with **no** prefix removes the token.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nextdns)> authtoken <authtoken>
(nextdns)> no authtoken
```

| Arguments | Argument | Value | Description |
|-----------|-----------|---------------|---|
| | authtoken | <i>String</i> | Authentication token (ID) for <i>NextDNS</i> account. |

Example

```
(nextdns)> authtoken 1f2a36
NextDns::Client: Set authentication token.
```

```
(nextdns)> no authtoken
NextDns::Client: Cleared authentication token.
```

| History | Version | Description |
|---------|---------|---|
| | 3.08 | The nextdns authtoken command has been introduced. |

3.105.4 nextdns check-availability

Description Check availability of *NextDNS* service.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(nextdns)> check-availability
```

Example

```
(nextdns)> check-availability
NextDns::Client: NextDNS DNS-over-HTTPS is available.
```

History

| Version | Description |
|---------|--|
| 3.08 | The nextdns check-availability command has been introduced. |

3.106 ndns

Description Access to a group of commands to manage KeenDNS service.

Prefix no No

Change settings No

Multiple input No

Group entry (ndns)

Synopsis (config)> **ndns**

Example (config)> **ndns**
Core::Configurator: Done.

History

| Version | Description |
|---------|--|
| 2.07 | The ndns command has been introduced. |

3.106.1 ndns book-name

Description Reserve Public DNS device hostname allocation.

For hostname transmission to another Keenetic device `transfer-code` parameter is used.

To transfer hostname it is necessary:

1. Execute command with `transfer-code` on the transmitting side.
2. Execute the same command with the same parameters on the receiving side.

Lifetime of `transfer-code` is 1 week.

Prefix no No

Change settings Yes

Multiple input No

Synopsis (ndns)> **book-name** *<name>* *<domain>* [*<access>* [**ipv6** *<access6>*] | *<transfer-code>*]

Arguments

| Argument | Value | Description |
|---------------|---------------|---|
| name | <i>String</i> | The hostname for allocation. |
| domain | <i>String</i> | Second-level domain. |
| access | auto | Automatic access type. |
| | cloud | Hostname is registered on the cloud server IP address, HTTP traffic is tunneled to the Carrier. |
| | direct | Hostname is registered on the Carrier WAN-address. |
| access6 | cloud | Enable cloud mode for IPv6 address. |
| transfer-code | <i>Hex</i> | Code for domain transmission to another Keenetic device. The length is 32 symbols. |

Example

```
(ndns)> book-name myhome23 keenetic.pro

done, layout = view, title = NDSS::ndns/bookName ▶
(Public DNS Hostname Booking), sub-title = The name booking was ▶
successful.:
  client, geo = RU, ip = 193.0.174.200, format = ▶
clean, date = 2019-05-23T09:46:54.536Z, standalone = false:

  fields:
    field, name = name, title = Public Name:
    field, name = domain, title = Domain Name:
    field, name = updated, title = Updated, type ▶
= date, variant = date:
    field, name = address, title = IP Address:
    field, name = access, title = Access Mode ▶
IP4, default = unknown:
    field, name = address6, title = IPv6 Address:
    field, name = access6, title = Access Mode ▶
IPv6, default = unknown:
    field, name = transfer, title = Transfer:

    name: myhome23
    domain: keenetic.pro
    acme: LE
    updated: 2019-05-23T09:46:51.013Z
    address: 193.0.174.200
    access: direct
    access6: none
    transfer: false

  suffix, layout = message, code = 200, message = ▶
The name booking was successful.:
  detail, layout = list:
    columns:
      column, id = type, title = Type:
```

```

        column, id = peer, title = Peer:

        column, id = detail, title = Detail:

        column, id = elapsed, title = Time, ▶
variant = period, scale = 1:

        item, elapsed = 18, origin = ▶
[TaskUdpSingle "ndss111h2.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss111h2.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 19, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss111h2.ndm9.xyz, detail = success
reply: [MsgCack], quorumLeft=3:

        item, elapsed = 27, origin = ▶
[TaskUdpSingle "ndss112o1.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss112o1.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 27, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss112o1.ndm9.xyz, detail = success
reply: [MsgCack], quorumLeft=2:

        item, elapsed = 67, origin = ▶
[TaskUdpSingle "ndss111r3.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss111r3.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 68, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss111r3.ndm9.xyz, detail = success
reply: [MsgCack], quorumLeft=1:

        item, elapsed = 70, origin = ▶
[TaskUdpSingle "ndss112r3.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss112r3.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 79, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = done, peer = local, detail = finalize: the name allocation
committed.:

```

```

        item, elapsed = 91, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = complete, peer = finalizer, detail = address updated:
193.0.174.200:

        item, elapsed = 91, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = finalize, peer = local, detail = post-process triggers
executed.:

        item, elapsed = 91, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss112r3.ndm9.xyz, detail = success
reply: [MsgCack]:

        item, elapsed = 97, origin = ▶
[TaskUdpSingle "ndss112o1.ndm9.xyz" [MsgNdssMessage ▶
["rchs/bookFinalize","014635737374513","myhome23","keenetic.pro","193.0.174.200",":2",undefined,"2019-05-
23T09:46:51.013Z"]] / started], type = reply-final, peer = ▶
ndss112o1.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 106, origin = ▶
[TaskUdpSingle "ndss111h2.ndm9.xyz" [MsgNdssMessage ▶
["rchs/bookFinalize","014635737374513","myhome23","keenetic.pro","193.0.174.200",":2",undefined,"2019-05-
23T09:46:51.013Z"]] / started], type = reply-final, peer = ▶
ndss111h2.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 153, origin = ▶
[TaskUdpSingle "ndss112r3.ndm9.xyz" [MsgNdssMessage ▶
["rchs/bookFinalize","014635737374513","myhome23","keenetic.pro","193.0.174.200",":2",undefined,"2019-05-
23T09:46:51.013Z"]] / started], type = reply-final, peer = ▶
ndss112r3.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 153, origin = ▶
[TaskUdpSingle "ndss111r3.ndm9.xyz" [MsgNdssMessage ▶
["rchs/bookFinalize","014635737374513","myhome23","keenetic.pro","193.0.174.200",":2",undefined,"2019-05-
23T09:46:51.013Z"]] / started], type = reply-final, peer = ▶
ndss111r3.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 3465, origin = ▶
[TaskUdpSingle "ndss112h2.ndm9.xyz" [MsgNdssMessage ▶
["rchs/bookFinalize","014635737374513","myhome23","keenetic.pro","193.0.174.200",":2",undefined,"2019-05-
23T09:46:51.013Z"]] / started], type = reply-final, peer = ▶
ndss112h2.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 3520, origin = ▶
[TaskUdpSingle "ndss112h2.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss112h2.ndm9.xyz, detail = [MsgCack]:

```

```

        item, elapsed = 3521, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss112h2.ndm9.xyz, detail = success
reply: [MsgCack]:

        item, elapsed = 3521, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = complete, peer = *, detail = All done.:

Ndns::Client: Booked "myhome23.keenetic.pro".

(ndns)> book-name nnttnn keenetic.pro ▶
121d567f901a345b289c121b567c903c

        done, layout = view, title = NDSS::ndns/bookName ▶
(Public DNS Hostname Booking), sub-title =
The name booking was successful.: client, geo = RU, ip = ▶
193.0.174.137, format =
clean, date = 2018-12-13T09:04:41.939Z, standalone = false:

        fields:
            field, name = name, title = Public Name:
            field, name = domain, title = Domain Name:
            field, name = updated, title = Updated, type ▶
= date, variant = date:
            field, name = address, title = IP Address:
            field, name = access, title = Access Mode ▶
IP4, default = unknown:
            field, name = address6, title = IPv6 Address:
            field, name = access6, title = Access Mode ▶
IPv6, default = unknown:
            field, name = transfer, title = Transfer:

            name: nnttnn
            domain: keenetic.pro
            acme: LE
            updated: 2018-12-13T08:47:11.014Z
            address: 0.0.0.0
            access: cloud
            access6: none
            transfer: true

        suffix, layout = message, code = 200, message = ▶
The name booking was successful.:
        detail, layout = list:
            columns:
                column, id = o, title = Operation:

                column, id = d, title = Detail:

                column, id = t, title = Time, variant ▶

```

```

= period, scale = 1:

        item, hl = false, o = start, d = ▶
[TaskBookName, {"name":"nnttnn","domain":
        ▶
"keenetic.pro","license":"730102642155400"}], t = 0:

        item, hl = false, o = lock-local, d = ▶
the name is locked (for current transaction), t = 1:

        item, hl = false, o = cluster, d = ▶
quorumRemaining: 2, quorumPossible: 4, quorumTotal: 4, t = 1:

        item, hl = false, o = lock-reply, d = ▶
Success: prepare, [NDSS
(key=Binary('PuR10V/kVezuoVCE'), alt=Binary('0gJ/Wh1606jAm1M'), ▶
dst="/192.168.21.14:17047")], [MsgCack], quorumLeft=2, t = 10:

        item, hl = false, o = lock-reply, d = ▶
Success: prepare, [NDSS
(key=Binary('EbxdtB4ne4ef/+p/'), alt=Binary('1c+3/pP6zaUjuE5w'), ▶
dst="/88.198.177.100:17047")], [MsgCack], quorumLeft=1, t = 57:

        item, hl = false, o = lock-reply, d = ▶
Quorum reached, finalizing, t = 57:

        item, hl = false, o = finalize, d = ▶
local changes committed., t = 65:

        item, hl = false, o = refreshed, d = ▶
address updated: 0.0.0.0, t = 77:

        item, hl = false, o = finalize, d = ▶
post-process triggers executed., t = 77:

        item, hl = false, o = lock-reply, d = ▶
Success: prepare, [NDSS
(key=Binary('+sSJ50ow6hn05f6n'), alt=Binary('7FsVtTpEppYeP7aj'), ▶
dst="/46.105.148.85:17047")], [MsgCack], quorumLeft=0, t = 78:

        item, hl = false, o = lock-reply, d = ▶
Success: prepare, [NDSS
(key=Binary('KveTxYekUYk2BwXz'), alt=Binary('s10R6mJvMmfQSe0s'), ▶
dst="/88.198.177.100:16047")], [MsgCack], quorumLeft=0, t = 78:

        item, hl = false, o = lock-reply, d = ▶
Done, all replies collected., t = 79:

        item, hl = false, o = commit-reply, d ▶
= Success: finalize, [NDSS
(key=Binary('PuR10V/kVezuoVCE'), alt=Binary('0gJ/Wh1606jAm1M'), ▶
dst="/192.168.21.14:17047")], [MsgCack], t = 84:

        item, hl = false, o = commit-reply, d ▶

```

```

= Success: finalize, [NDSS
(key=Binary('EbxdTB4ne4ef/+p/'), alt=Binary('1c+3/pP6zaUjuE5w'), ▶
dst="/88.198.177.100:17047")], [MsgCack], t = 126:
        item, hl = false, o = commit-reply, d ▶
= Success: finalize, [NDSS
(key=Binary('+sSJ50ow6hn05f6n'), alt=Binary('7FsVtTpEppYeP7aj'), ▶
dst="/46.105.148.85:17047")], [MsgCack], t = 133:
        item, hl = false, o = commit-reply, d ▶
= Success: finalize, [NDSS
key=Binary('KveTxYekUYk2BwXz'), alt=Binary('s10R6mJvMmfQSe0s'), ▶
dst="/88.198.177.100:16047")], [MsgCack], t = 145:
        item, hl = false, o = commit-reply, d ▶
= Commit stage complete., t = 146:
        item, hl = false, o = complete, d = All ▶
done., t = 146:

Ndns::Client: Booked "nnttnn.keenetic.pro".

```

```
(ndns)> book-name myhome23 keenetic.pro cloud ipv6 cloud
```

```

done, layout = view, title = NDSS::ndns/bookName ▶
(Public DNS Hostname Booking), sub-title = The name booking was ▶
successful.:
        client, geo = RU, ip = 193.0.174.200, format = ▶
clean, date = 2019-05-23T09:12:29.145Z, standalone = false:
        fields:
                field, name = name, title = Public Name:
                field, name = domain, title = Domain Name:
                field, name = updated, title = Updated, type ▶
= date, variant = date:
                field, name = address, title = IP Address:
                field, name = access, title = Access Mode ▶
IP4, default = unknown:
                field, name = address6, title = IPv6 Address:
                field, name = access6, title = Access Mode ▶
IPv6, default = unknown:
                field, name = transfer, title = Transfer:

        name: myhome23
        domain: keenetic.pro
        acme: LE
        updated: 2019-05-23T09:12:16.197Z
        address: 0.0.0.0
        access: cloud
        address6: ::
        access6: cloud
        transfer: false

        suffix, layout = message, code = 200, message = ▶

```



```

The name booking was successful.:
    detail, layout = list:
        columns:
            column, id = type, title = Type:

            column, id = peer, title = Peer:

            column, id = detail, title = Detail:

            column, id = elapsed, title = Time, ▶
variant = period, scale = 1:

            item, elapsed = 11, origin = ▶
[TaskUdpSingle "ndss112h2.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss112h2.ndm9.xyz, detail = [MsgCack]:

            item, elapsed = 11, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss112h2.ndm9.xyz, detail = success
reply: [MsgCack], quorumLeft=3:

            item, elapsed = 17, origin = ▶
[TaskUdpSingle "ndss112o1.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss112o1.ndm9.xyz, detail = [MsgCack]:

            item, elapsed = 18, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss112o1.ndm9.xyz, detail = success
reply: [MsgCack], quorumLeft=2:

            item, elapsed = 18, origin = ▶
[TaskUdpSingle "ndss111o1.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss111o1.ndm9.xyz, detail = [MsgCack]:

            item, elapsed = 19, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss111o1.ndm9.xyz, detail = success
reply: [MsgCack], quorumLeft=1:

            item, elapsed = 25, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = done, peer = local, detail = finalize: the name allocation
committed.:

```

```

item, elapsed = 40, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = complete, peer = finalizer, detail = address updated: ▶
0.0.0.0:

item, elapsed = 40, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = finalize, peer = local, detail = post-process triggers
executed.:

item, elapsed = 49, origin = ▶
[TaskUdpSingle "ndss112o1.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookFinalize","014635737374513","myhome23","keenetic.pro","0.0.0.0",":",undefined,"2019-05-
23T09:12:28.977Z"]] / started], type = reply-final, peer = ▶
ndss112o1.ndm9.xyz, detail = [MsgCack]:

item, elapsed = 49, origin = ▶
[TaskUdpSingle "ndss111o1.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookFinalize","014635737374513","myhome23","keenetic.pro","0.0.0.0",":",undefined,"2019-05-
23T09:12:28.977Z"]] / started], type = reply-final, peer = ▶
ndss111o1.ndm9.xyz, detail = [MsgCack]:

item, elapsed = 50, origin = ▶
[TaskUdpSingle "ndss111r3.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss111r3.ndm9.xyz, detail = [MsgCack]:

item, elapsed = 50, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss111r3.ndm9.xyz, detail = success
reply: [MsgCack]:

item, elapsed = 50, origin = ▶
[TaskUdpSingle "ndss112r3.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookPrepare","014635737374513","myhome23","keenetic.pro",undefined]] ▶
/ started], type = reply-final,
peer = ndss112r3.ndm9.xyz, detail = [MsgCack]:

item, elapsed = 51, origin = ▶
[TaskBookName, ▶
{"name":"myhome23","domain":"keenetic.pro","license":"014635737374513"}], ▶
type = prepare-reply, peer = ndss112r3.ndm9.xyz, detail = success
reply: [MsgCack]:

item, elapsed = 80, origin = ▶
[TaskUdpSingle "ndss112r3.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookFinalize","014635737374513","myhome23","keenetic.pro","0.0.0.0",":",undefined,"2019-05-
23T09:12:28.977Z"]] / started], type = reply-final, peer = ▶
ndss112r3.ndm9.xyz, detail = [MsgCack]:

```

```

        item, elapsed = 122, origin = ▶
[TaskUdpSingle "ndss112h2.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookFinalize", "014635737374513", "myhome23", "keenetic.pro", "0.0.0.0", ":", undefined, "2019-05-23T09:12:28.977Z"]] / started], type = reply-final, peer = ▶
ndss112h2.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 165, origin = ▶
[TaskUdpSingle "ndss111r3.ndm9.xyz" [MsgNdssMessage ▶
["ndns/bookFinalize", "014635737374513", "myhome23", "keenetic.pro", "0.0.0.0", ":", undefined, "2019-05-23T09:12:28.977Z"]] / started], type = reply-final, peer = ▶
ndss111r3.ndm9.xyz, detail = [MsgCack]:

        item, elapsed = 166, origin = ▶
[TaskBookName, ▶
{"name": "myhome23", "domain": "keenetic.pro", "license": "014635737374513"}], ▶
type = complete, peer = *, detail = All done.:

Ndns::Client: Booked "myhome23.keenetic.pro".

```

History

| Version | Description |
|---------|--|
| 2.07 | The ndns book-name command has been introduced. |
| 2.14 | Parameter <code>ipv6</code> was added. |

3.106.2 ndns check-name

Description Check the availability of hostname for allocation.

Prefix no No

Change settings No

Multiple input No

Synopsis `(ndns)> check-name <name>`

Arguments

| Argument | Value | Description |
|-------------------|---------------|------------------------------|
| <code>name</code> | <i>String</i> | The hostname for allocation. |

Example

```

(ndns)> check-name testname

list:
  item:
    domain: keenetic.link
    name: testname
  available: yes
  acme: yes

  item:

```

```

        domain: keenetic.name
        name: testname
    available: yes
    acme: yes

    item:
        domain: keenetic.pro
        name: testname
    available: no
    acme: yes

Ndns::Client: Check completed.

```

History

| Version | Description |
|---------|---|
| 2.07 | The ndns check-name command has been introduced. |

3.106.3 ndns drop-name

Description Drop Public DNS device hostname allocation.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(ndns)> drop-name <name> <domain>`

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| name | <i>String</i> | The hostname for dropping. |
| domain | <i>String</i> | Second-level domain. |

Example

```

(ndns)> drop-name testname mykeenetic.net

done, title = NDSS::ndns/dropName (Delete DNS ▶
Hostname Booking), code = 200,
icon = tick, hl = true, layout = message:
    client, geo = RU, ip = 81.200.27.56, format = ▶
clean, date = 2016-09-
22T10:52:35.685Z, standalone = false:
    reason: The name is un-booked.

    detail, layout = list:
        columns:
            column, id = o, title = Operation:
            column, id = d, title = Detail:
            column, id = t, title = Time, variant = ▶
period, scale = 1:

```

```

        item, hl = false, o = start, d = ▶
[TaskDropName, {"name":"testname",
"domain":"mykeenetic.net","license":"243992935221479"}], t = 0:
        item, hl = false, o = lock-local, d = the ▶
name is locked (for current
transaction), t = 1:
        item, hl = false, o = cluster, d = ▶
quorumRemaining: 2, quorumPossible: 4,
quorumTotal: 4, t = 1:
        item, hl = false, o = lock-reply, d = ▶
Success: prepare, [NDSS
(key=Binary('vNEqUcIAWtrIaC50'), alt=Binary('L2hVqanJmGJrzvKh'),
dst="/148.251.63.154:17047")], [MsgCack], quorumLeft=2, t = 55:
        item, hl = false, o = lock-reply, d = ▶
Success: prepare, [NDSS
(key=Binary('yp/ghaehxe5EtXyc'), alt=Binary('t+JluEWuGguJ+28h'),
dst="/46.105.148.81:17047")], [MsgCack], quorumLeft=1, t = 72:
        item, hl = false, o = lock-reply, d = Quorum ▶
reached, finalizing, t = 73:
        item, hl = false, o = finalize, d = local ▶
changes commited., t = 79:
        item, hl = false, o = refreshed, d = address ▶
cleared, t = 85:
        item, hl = false, o = finalize, d = ▶
post-process triggers executed., t = 85:
        item, hl = false, o = commit-reply, d = ▶
Success: finalize, [NDSS
(key=Binary('vNEqUcIAWtrIaC50'), alt=Binary('L2hVqanJmGJrzvKh'),
dst="/148.251.63.154:17047")], [MsgCack], t = 134:
        item, hl = false, o = commit-reply, d = ▶
Success: finalize, [NDSS
(key=Binary('yp/ghaehxe5EtXyc'), alt=Binary('t+JluEWuGguJ+28h'),
dst="/46.105.148.81:17047")], [MsgCack], t = 161:
        item, hl = false, o = lock-reply, d = ▶
Success: prepare, [NDSS
(key=Binary('SyptNue2bys/mxi0'), alt=Binary('yPrQwfa/4yn676wk'),
dst="/148.251.129.152:17047")], [MsgCack], quorumLeft=0, t = 231:
        item, hl = false, o = commit-reply, d = ▶
Success: finalize, [NDSS
(key=Binary('SyptNue2bys/mxi0'), alt=Binary('yPrQwfa/4yn676wk'),
dst="/148.251.129.152:17047")], [MsgCack], t = 235:
        item, hl = false, o = commit-reply, d = ▶
Success: finalize, [NDSS
(key=Binary('pLNIsTXD+0P4D9Fc'), alt=Binary('kGImY2U/LublZ/Zr'),
dst="/91.218.112.118:17047")], [MsgCack], t = 3608:
        item, hl = false, o = commit-reply, d = ▶
Commit stage complete., t = 3608:
        item, hl = false, o = complete, d = All ▶
done., t = 3608:

Ndns::Client: Dropped "testname.mykeenetic.net".

```

History

| Version | Description |
|---------|--|
| 2.07 | The ndns drop-name command has been introduced. |

3.106.4 ndns get-booked

Description Get actual info from the server about current booked Public DNS hostname.

Prefix no No

Change settings No

Multiple input No

Synopsis | (ndns)> **get-booked**

Example

```
(ndns)> get-booked

done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking
Address and Expiration):
    client, geo = RU, ip = 41.189.34.56, format = ►
xml, date = 2017-09-
14T08:30:19.266Z, standalone = false:
    menu, src = ►
/index?__auth=force&__role=context-
menu&ref=%2fndns%2fupdateBooking:

fields:
    field, name = name, title = Public Name:

    field, name = domain, title = Domain Name:

    field, name = address, title = IP Address:

    field, name = updated, title = Updated, type ►
= date, variant = date:

    field, name = access, title = Access Mode, ►
default = unknown:

    field, name = transfer, title = Transfer:

name: testname
domain: mykeenetic.com
address: 41.189.34.56
updated: 2017-09-11T11:27:32.167Z
access: direct
transfer: false

Ndns::Client: Get-booked completed.
```

History

| Version | Description |
|---------|---|
| 2.08 | The ndns get-booked command has been introduced. |

3.106.5 ndns get-update

Description Update Public DNS device hostname allocation on the server.

Prefix no No

Change settings No

Multiple input No

Synopsis `(ndns)> get-update [⟨access⟩ [ipv6 ⟨access6⟩]]`

Arguments

| Argument | Value | Description |
|----------|--------|--|
| access | auto | Automatic access type. |
| | cloud | Hostname is registered on the cloud server IP address, HTTP traffic is tunneled to the Carrier. |
| | direct | Hostname is registered on the Carrier WAN-address. This command allows to enable support for the <i>Static NAT (NAT 1-1)</i> on the server side in the KeenDNS account parameters. |
| access6 | cloud | Enable cloud mode for IPv6 address. |

Example

```
(ndns)> get-update auto

done, layout = view, title = ▶
NDSS::ndns/updateBooking (Update Name Booking
Address and Expiration):
  client, geo = RU, ip = 81.200.27.56, format = ▶
xml, date = 2016-09-
22T12:07:32.746Z, standalone = false:
  menu, src = ▶
/index?__auth=force&__role=context-
menu&ref=%2fndns%2fupdateBooking:

  fields:
    field, name = name, title = Public Name:
    field, name = domain, title = Domain Name:
    field, name = address, title = IP Address:
    field, name = updated, title = Updated, type ▶
= date, variant = date:
    field, name = access, title = Access Mode, ▶
default = unknown:
    field, name = transfer, title = Transfer:
```

```

        name: testname
        domain: mykeenetic.net
        address: 81.200.27.56
        updated: 2016-09-22T12:07:32.744Z
        access: direct
        transfer: false

```

Ndns::Client: Get-update completed.

(ndns)> **get-update cloud ipv6 cloud**

```

        done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
        client, geo = RU, ip = 193.0.174.168, format = ►
xml, date = 2019-05-21T15:26:45.552Z, standalone = false:
        menu, src = ►
/index?__auth=force&__role=context-menu&ref=%2fndns%2fupdateBooking:

        fields:
            field, name = name, title = Public Name:
            field, name = domain, title = Domain Name:
            field, name = updated, title = Updated, type ►
= date, variant = date:
            field, name = address, title = IP Address:
            field, name = access, title = Access Mode ►
(ip4), default = unknown:
            field, name = address6, title = IPv6 Address:
            field, name = access6, title = Access Mode ►
(ipv6), default = unknown:
            field, name = transfer, title = Transfer:

        name: mytest
        domain: keenetic.pro
        acme: LE
        address: 0.0.0.0
        access: cloud
        address6: ::
        access6: cloud
        updated: 2019-05-21T15:26:45.547Z
        transfer: false

```

Ndns::Client: Get-update completed.

(ndns)> **get-update direct**

```

        done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
        client, geo = RU, ip = 193.0.174.159, format = ►
xml, date = 2019-11-13T16:53:30.782Z, standalone = false:
        menu, src = ►
/index?__auth=force&__role=context-menu&ref=%2fndns%2fupdateBooking:

```



```

        fields:
            field, name = name, title = Public Name:
            field, name = domain, title = Domain Name:
            field, name = updated, title = Updated, type ▶
= date, variant = date:
            field, name = address, title = IP Address:
            field, name = access, title = Access Mode ▶
(ip4), default = unknown:
            field, name = address6, title = IPv6 Address:
            field, name = access6, title = Access Mode ▶
(ipv6), default = unknown:
            field, name = transfer, title = Transfer:

        name: myworknow
        domain: keenetic.link
        acme: LE
        address: 193.0.174.159
        access: direct
        access6: none
        updated: 2019-11-13T16:50:34.298Z
        transfer: false

```

History

| Version | Description |
|---------|---|
| 2.07 | The ndns get-update command has been introduced. |
| 2.14 | Parameter ipv6 was added. |

3.107 ntce

Description Access to a group of commands to configure the *NTCE* service.

Prefix no No

Change settings No

Multiple input No

Group entry (config-ntce)

Synopsis | (config)> **ntce**

Example (config)> **ntce**
(config-ntce)>

History

| Version | Description |
|---------|--|
| 3.07 | The ntce command has been introduced. |

3.107.1 ntce debug

Description Enable debug for the *NTCE* service. By default, setting is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (config-ntce)> **debug**

| (config-ntce)> **no debug**

Example (config-ntce)> **debug**
Ntce::Manager: Enabled debug.

(config-ntce)> **no debug**
Ntce::Manager: Disabled debug.

History

| Version | Description |
|---------|--|
| 3.07 | The ntce debug command has been introduced. |

3.107.2 ntce memory-watcher

Description Enable the memory pressure watcher mechanism for the *NTCE* service. By default, setting is enabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (config-ntce)> **memory-watcher**

| (config-ntce)> **no memory-watcher**

Example (config-ntce)> **memory-watcher**
Ntce::Manager: Enabled automatic memory pressure handler.

(config-ntce)> **no memory-watcher**
Ntce::Manager: Disabled automatic memory pressure handler.

| History | Version | Description |
|---------|---------|---|
| | 3.08 | The ntce memory-watcher command has been introduced. |

3.107.3 ntce qos category priority

Description Set priorities for traffic categories.
Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ntce)> qos category <category>priority <priority>
(config-ntce)> qos category <category>no priority
```

| Arguments | Argument | Value | Description |
|-----------|----------|------------------|---|
| | category | calling | ① Top. |
| | | gaming | ② Critical. |
| | | streaming | ③ High. |
| | | work | ④ Medium-high. |
| | | surfing | ⑤ Medium. |
| | | other | ⑥ Normal (Default). |
| | | filetransferring | ⑦ Low. |
| | priority | <i>Integer</i> | Priority value. Can take values in the range from 1 to 7. |

Example

```
(config-ntce)> qos category work priority 7
Ntce::Manager: Set category "work" priority to "7".
```

```
(config-ntce)> qos category other no priority
Ntce::Manager: Reset QoS priority for category "work".
```

| History | Version | Description |
|---------|---------|--|
| | 3.08 | The ntce qos category priority command has been introduced. |

3.107.4 ntce qos enable

Description Enable IntelliQoS, which ensures inbound, and outbound bandwidth for prioritized applications and tasks via pre-defined category groups presets. By default the service is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ntce)> qos enable
(config-ntce)> no qos enable
```

Example

```
(config-ntce)> qos enable
Ntce::Manager: Enabled QoS.
```

```
(config-ntce)> no qos enable
Ntce::Manager: Disabled QoS.
```

History

| Version | Description |
|---------|---|
| 3.07 | The ntce qos enable command has been introduced. |

3.107.5 ntce upstream rate-limit input

Description Add limitation on the inbound traffic for specified interface.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ntce)> upstream rate-limit <interface> input (<rate> | auto)
(config-ntce)> no upstream rate-limit <interface> input
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | The name of a global interface to rate-limit. |
| rate | <i>Integer</i> | The ingress rate limit in kbps. Can take values in the range from 64 to 1000000. |
| auto | <i>Keyword</i> | Auto-ingress mode. |

Example

```
(config-ntce)> upstream rate-limit ISP input auto
Ntce::Upstreams: Set ISP input rate limit to "auto".
```

```
(config-ntce)> upstream rate-limit ISP input 1000000
Ntce::Upstreams: Set ISP input rate limit to "1000000" kbps.
```

```
(config-ntce)> no upstream rate-limit ISP input
Ntce::Upstreams: Reset ISP input rate limit.
```

History

| Version | Description |
|---------|--|
| 4.01 | The ntce upstream rate-limit input command has been introduced. |

3.107.6 ntce upstream rate-limit output

Description Add limitation on the outbound traffic for specified interface.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-ntce)> upstream rate-limit <interface> output (<rate> | auto)
```

```
(config-ntce)> no upstream rate-limit <interface> output
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | The name of a global interface to rate-limit. |
| rate | <i>Integer</i> | The ingress rate limit in kbps. Can take values in the range from 64 to 1000000. |
| auto | <i>Keyword</i> | Auto-ingress mode. |

Example

```
(config-ntce)> upstream rate-limit ISP output auto
Ntce::Upstreams: Set ISP output rate limit to "auto".
```

```
(config-ntce)> upstream rate-limit ISP output 1000000
Ntce::Upstreams: Set ISP output rate limit to "1000000" kbps.
```

```
(config-ntce)> no upstream rate-limit ISP output
Ntce::Upstreams: Reset ISP output rate limit.
```

History

| Version | Description |
|---------|---|
| 4.01 | The ntce upstream rate-limit output command has been introduced. |

3.108 ntp

Description Access to configure *NTP* client.
Command with **no** prefix resets *NTP* client configuration to default.

Prefix no Yes

Change settings No

Multiple input No

Synopsis | (config)> **no ntp**

Example (config)> **no ntp**
Ntp::Client: Configuration reset.

History

| Version | Description |
|---------|---|
| 2.00 | The ntp command has been introduced. |

3.109 ntp master

Description Enable *SNTP* server in private and protected network segments.
Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (config)> **ntp master**

| (config)> **no ntp master**

Example (config)> **ntp mater**
Ntp::Server: Enabled master mode.

(config)> **no ntp master**
Ntp::Server: Disabled master mode.

History

| Version | Description |
|---------|--|
| 3.09 | The ntp master command has been introduced. |

3.110 ntp server

Description Add a new *NTP* server to the list. You can enter up to 8 *NTP* servers.
Command with **no** prefix deletes *NTP* server from the list. If you use no argument, the entire list of *NTP* servers will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ntp server <server>
```

```
(config)> no ntp server [ <server> ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| server | <i>String</i> | Host of <i>NTP</i> server. |

Example

```
(config)> ntp server pool.ntp.org
Ntp::Client: Server "pool.ntp.org" has been added.
```

```
(config)> no ntp server
Ntp::Client: All NTP servers removed.
```

History

| Version | Description |
|---------|--|
| 2.00 | The ntp server command has been introduced. |

3.111 ntp source

Description Set a specific source IP address for *NTP* service.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ntp source <address>
```

```
(config)> no ntp source
```

Arguments

| Argument | Value | Description |
|----------|-------------------|---|
| address | <i>IP address</i> | The source IP address for all <i>NTP</i> packets. |

Example (config)> **ntp source 192.168.2.2**
Ntp::Client: Source has been set.

(config)> **no ntp source**
Ntp::Client: Source has been reset.

History

| Version | Description |
|---------|--|
| 4.01 | The ntp source command has been introduced. |

3.112 ntp sync-period

Description Set a period for time synchronization. By default, 1 week is used.

Command with **no** prefix resets time synchronization to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ntp sync-period <period>
```

```
(config)> no ntp sync-period
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| period | <i>Integer</i> | Time synchronization, in minutes. Can take values in the range from 60 minutes to 1 month. |

Example (config)> **ntp sync-period 60**
Ntp::Client: A synchronization period set to 60 minutes.

(config)> **no ntp sync-period**
Ntp::Client: Synchronization period value reset.

History

| Version | Description |
|---------|---|
| 2.00 | The ntp sync-period command has been introduced. |

3.113 object-group ip

Description Create an object group of IP type, which can store IPv4 subnets with optional L4 protocol and port range info.

Command with **no** prefix removes the group.

| | |
|------------------------|------------------|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | Yes |
| Interface type | IP |
| Group entry | (config-ogrp-ip) |

Synopsis

```
(config)> object-group ip <name>
```

```
(config)> no object-group ip <name>
```

| Arguments | Argument | Value | Description |
|------------------|----------|--------|--------------------------------|
| | name | String | Name of the IPv4 object group. |

Example

```
(config)> object-group ip test  
Network::ObjectGroup: "test": group created.
```

```
(config)> no object-group ip test  
Network::ObjectGroup: "test": group removed.
```

| History | Version | Description |
|----------------|---------|---|
| | 4.00 | The object-group ip command has been introduced. |

3.113.1 object-group ip exclude

Description Add or remove non-matching element of the object group.
Command with **no** prefix removes the setting.

| | |
|------------------------|-----|
| Prefix no | Yes |
| Change settings | Yes |
| Multiple input | Yes |

Synopsis

```
(config-ogrp-ip)> exclude <proto> <address> [ <port> [<end-port>]]
```

```
(config-ogrp-ip)> no exclude <proto> <address> [ <port> [<end-port>]]
```

| Arguments | Argument | Value | Description |
|------------------|----------|-------------------------------|---|
| | proto | ip | IP protocol (include TCP , UDP , ICMP and other). |
| tcp | | TCP protocol. | |

| Argument | Value | Description |
|----------|----------------|--|
| | udp | <i>UDP</i> protocol. |
| | tcpudp | <i>TCP</i> and <i>UDP</i> protocols. |
| | icmp | <i>ICMP</i> protocol. |
| | esp | <i>ESP</i> protocol. |
| | gre | <i>GRE</i> protocol. |
| | ipip | <i>IP in IP</i> protocol. |
| address | <i>String</i> | IP address or subnet (in the form of prefix bit length (e.g. 1.2.3.0/24)). |
| port | <i>Integer</i> | TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated. |
| end-port | <i>Integer</i> | The end of the range of ports. |

Example

```
(config-ogrp-ip)> exclude tcpudp 1.2.3.0/24 70 80
Network::ObjectGroup: "test": added exclude tcpudp 1.2.3.0/24 ►
70-80.
```

```
(config-ogrp-ip)> no exclude tcpudp 1.2.3.0/24 70 80
Network::ObjectGroup: "test": removed exclude tcpudp 1.2.3.0/24 ►
70-80.
```

History

| Version | Description |
|---------|---|
| 4.00 | The object-group ip exclude command has been introduced. |

3.113.2 object-group ip include

Description

Add or remove matching element of the object group.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-ogrp-ip)> include <proto> <address> [ <port> [<end-port>]]
```

```
(config-ogrp-ip)> no include <proto> <address> [ <port> [<end-port>]]
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| proto | ip | <i>IP</i> protocol (include <i>TCP</i> , <i>UDP</i> , <i>ICMP</i> and other). |
| | tcp | <i>TCP</i> protocol. |
| | udp | <i>UDP</i> protocol. |
| | tcpudp | <i>TCP</i> and <i>UDP</i> protocols. |
| | icmp | <i>ICMP</i> protocol. |
| | esp | <i>ESP</i> protocol. |
| | gre | <i>GRE</i> protocol. |
| | ipip | <i>IP in IP</i> protocol. |
| address | <i>String</i> | IP address or subnet (in the form of prefix bit length (e.g. 1.2.3.0/24)). |
| port | <i>Integer</i> | TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated. |
| end-port | <i>Integer</i> | The end of the range of ports. |

Example

```
(config-ogrp-ip)> include tcpudp 1.2.3.0/24 75 80
Network::ObjectGroup: "test": added include tcpudp 1.2.3.0/24 ►
75-80.
```

```
(config-ogrp-ip)> no include tcpudp 1.2.3.0/24 75 80
Network::ObjectGroup: "test": removed include tcpudp 1.2.3.0/24 ►
75-80.
```

History

| Version | Description |
|---------|---|
| 4.00 | The object-group ip include command has been introduced. |

3.114 opkg chroot

Description

Enable chroot for *opkg*. If enabled, root directory is changed to /opt before executing any *opkg* script. By default, the setting is disabled.

Command with **no** prefix disables chroot mode.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> opkg chroot
```

```
(config)> no opkg chroot
```

Example

```
(config)> opkg chroot
Opkg::Manager: Chroot enabled.
```

```
(config)> no opkg chroot
Opkg::Manager: Chroot disabled.
```

History

| Version | Description |
|---------|---|
| 2.05 | The opkg chroot command has been introduced. |

3.115 opkg disk

Description

Configure partition for *opkg* software. This setting is required to install and run *opkg*.

Once configured, the partition will be mounted to /opt using **mount --bind**, and the **initrc** script executed immediately, see also [Section 3.117 on page 445](#).

If /opt/install directory is not empty, all contained *.ipk and *.tgz archives are unpacked to /opt before running **initrc**. Archives are deleted after installation.

Command with **no** prefix disables the *opkg* feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> opkg disk (<disk> | <disk>)
```

```
(config)> no opkg disk
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------------------|
| disk | <i>String</i> | Partition label or UUID. |

Example

```
(config)> opkg disk ext4_opkg:/
Opkg::Manager: Disk is set to: ext4_opkg:/.
```

```
(config)> no opkg disk
Opkg::Manager: Disk is unset.
```

History

| Version | Description |
|---------|---|
| 2.05 | The opkg disk command has been introduced. |

3.116 opkg dns-override

Description Disable *TCP* and *UDP* 53 port for DNS proxy.

Disables port allows to replace embedded DNS proxy with a custom service, such as BIND or Dnsmasq of *opkg*.

Command with **no** prefix returns port work for DNS proxy.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> opkg dns-override
(config)> no opkg dns-override
```

Example

```
(config)> opkg dns-override
Opkg::Manager: DNS override enabled.
```

```
(config)> no opkg dns-override
Opkg::Manager: DNS override disabled.
```

History

| Version | Description |
|---------|---|
| 2.05 | The opkg dns-override command has been introduced. |

3.117 opkg initrc

Description Set initial script. Default value — /opt/etc/initrc.

When the *opkg disk* is mounted, and the packages are installed, the system will execute the initial script. If *path* is a directory, the system will execute all contained scripts in alphabetic order.

Command with **no** prefix resets *initrc* to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> opkg initrc <path>
(config)> no opkg initrc
```

Arguments

| Argument | Value | Description |
|----------|-----------------|-----------------------------------|
| path | <i>Filename</i> | Initial script file or directory. |

Example

```
(config)> opkg initrc /opt/etc/init.d/rc.unslung
Opkg::Manager: Configured init script: ►
"/opt/etc/init.d/rc.unslung".
(config)> no opkg initrc
Opkg::Manager: Init script reset to default: /opt/etc/initrc.
```

History

| Version | Description |
|----------|---|
| 2.05.C.3 | The opkg initrc command has been introduced. |

3.118 opkg timezone

Description

Configure TZ environment variable and /opt/var/TZ file for *opkg* software. Default — timezone is undefined.

It depends on the *opkg* C library, how timezone is interpreted. The value of TZ can be either a POSIX timezone specification in the form `stdoffset[dst[offset]][,start[/time],end[/time]]`, or the name of a zoneinfo-binary-format timezone file (the form used by glibc and almost all GNU systems).

Command with **no** prefix resets timezone to undefined.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> opkg timezone(auto | <timezone>)
```

```
(config)> no opkg timezone
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| timezone | <i>String</i> | Timezone specification to be assigned to the TZ environment variable and written to /opt/var/TZ. |
| auto | Keyword | Automatic timezone assignment. Specification is generated from system wide settings, see Section 3.157.4 on page 635 . |

Example

```
(config)> opkg timezone auto
Opkg::Manager: Enabled automatic timezone.
(config)> opkg timezone UTC
Opkg::Manager: Enabled timezone "UTC".
```

```
(config)> no opkg timezone
Opkg::Manager: Timezone reset to undefined.
```

History

| Version | Description |
|----------|---|
| 2.05.C.3 | The opkg timezone command has been introduced. |

3.119 ping-check profile

Description Access to a group of commands to configure *Ping Check* profile. If the profile is not found, the command tries to create it.

Command with **no** prefix removes *Ping Check* profile.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-pchk)

Synopsis

```
(config)> ping-check profile <name>
(config)> no ping-check profile <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| name | <i>String</i> | <i>Ping Check</i> profile name. You can see the list of available profiles with help of ping-check profile [Tab] command. |

Example

```
(config)> ping-check profile [Tab]
```

```
Usage template:
  profile {name}
```

```
Choose:
        TEST
        MYMY
```

```
(config)> ping-check profile new_prof
PingCheck::Client: Profile "new_prof" has been created.
(config-pchk)>
```

```
(config)> no ping-check profile new_prof
PingCheck::Client: Profile "new_prof" has been deleted.
```

History

| Version | Description |
|---------|--|
| 2.04 | The ping-check profile command has been introduced. |

3.119.1 ping-check profile host

Description Assign hostname for testing. By default, hostname is assigned according to country code.

Command with **no** prefix removes the hostname.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> host <host>
(config-pchk)> no host [ <host> ]
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---------------------------------|
| host | <i>Hostname</i> | Name or address of remote host. |

Example

```
(config-pchk)> host 8.8.8.8
PingCheck::Profile: "test": add host "8.8.8.8" for testing.
```

```
(config-pchk)> host google.com
PingCheck::Profile: "test": add host "google.com" for testing.
```

```
(config-pchk)> no host
PingCheck::Profile: "test": hosts cleared.
```

History

| Version | Description |
|---------|---|
| 2.04 | The ping-check profile host command has been introduced. |

3.119.2 ping-check profile max-fails

Description Specify the number of consecutive failed requests to a remote host by obtaining of which the Internet at the interface considered absent. By default, value 5 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> max-fails <count>
```



```
(config-pchk)> no max-fails
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| count | <i>Integer</i> | Amount of failed requests. Can take values in the range from 1 to 10 inclusively. |

Example

```
(config-pchk)> max-fails 7
PingCheck::Profile: "test": uses 7 fail count for disabling ►
interface.
```

```
(config-pchk)> no max-fails
PingCheck::Profile: "test": fail count is reset to 5.
```

History

| Version | Description |
|---------|--|
| 2.04 | The ping-check profile max-fails command has been introduced. |

3.119.3 ping-check profile min-success

Description

Specify the number of consecutive success requests to a remote host by obtaining of which the Internet at the interface considered present. By default, value 5 is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-pchk)> min-success <count>
```

```
(config-pchk)> no min-success
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| count | <i>Integer</i> | Amount of success requests. Can take values in the range from 1 to 10 inclusively. |

Example

```
(config-pchk)> min-success 3
PingCheck::Profile: "test": uses 3 success count for enabling ►
interface.
```

```
(config-pchk)> no min-success
PingCheck::Profile: "test": success count is reset to 5.
```

History

| Version | Description |
|---------|--|
| 2.04 | The ping-check profile min-success command has been introduced. |

3.119.4 ping-check profile mode

Description Set *Ping Check* mode. By default, icmp value is used.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(config-pchk)> mode <mode>`

Arguments

| Argument | Value | Description |
|----------|---------|--|
| mode | icmp | The availability testing of remote host will be done by ICMP-echo request (ping) sending. |
| | connect | The availability testing of remote host will be done by TCP-connection establishing to specified port. |
| | tls | The availability testing of remote host will be done by TLS-connection. |
| | uri | The availability testing of remote host will be done by URI checking. |

Example

```
(config-pchk)> mode tls
PingCheck::Profile: "test": uses tls mode.
```

History

| Version | Description |
|---------|---|
| 2.04 | The ping-check profile mode command has been introduced. |
| 3.09 | The <code>tls</code> argument was added. |
| 4.00 | The <code>uri</code> argument was added. |

3.119.5 ping-check profile port

Description Specify port for connection to the remote host. Setting has a meaning for connect mode of *Ping Check* (see **ping-check profile mode** command).

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> port <port>
```

```
(config-pchk)> no port
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| port | <i>Integer</i> | Port number. Can take values in the range from 1 to 65534 inclusively. |

Example

```
(config-pchk)> port 80
PingCheck::Profile: "test": uses port 80 for testing.
```

```
(config-pchk)> no port
PingCheck::Profile: "test": port is cleared.
```

History

| Version | Description |
|---------|---|
| 2.04 | The ping-check profile port command has been introduced. |

3.119.6 ping-check profile power-cycle

Description Enable power-cycle for USB network interface. Enabled by default.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> power-cycle
```

```
(config-pchk)> no power-cycle
```

Example

```
(config-pchk)> power-cycle
PingCheck::Profile: "test": enabled USB power cycle.
```

```
(config-pchk)> power-cycle
PingCheck::Profile: "test": disabled USB power cycle.
```

History

| Version | Description |
|---------|--|
| 2.04 | The ping-check profile power-cycle command has been introduced. |

3.119.7 ping-check profile timeout

Description Set the maximum response time of the remote host for a single request in seconds. By default, 2 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> timeout <timeout>
(config-pchk)> no timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | Response time in seconds. Can take values in the range from 1 to 10 inclusively. |

Example

```
(config-pchk)> timeout 4
PingCheck::Profile: "test": timeout is changed to 4 seconds.
```

```
(config-pchk)> no timeout
PingCheck::Profile: "test": timeout is reset to 2.
```

History

| Version | Description |
|---------|--|
| 2.04 | The ping-check profile timeout command has been introduced. |

3.119.8 ping-check profile update-interval

Description Set periodicity of *Ping Check* performing.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> update-interval <seconds>
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| seconds | <i>Integer</i> | Refresh period in seconds. Can take values in the range from 3 to 3600 inclusively. |

Example (config-pchk)> **update-interval 60**
 PingCheck::Profile: "test": update interval is changed to 60 ► seconds.

| Version | Description |
|---------|--|
| 2.04 | The ping-check profile update-interval command has been introduced. |

3.119.9 ping-check profile uri

Description Assign URI ([Uniform Resource Identifier](https://en.wikipedia.org/wiki/Uniform_Resource_Identifier)⁶) host for testing.
 Command with **no** prefix removes the host.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> uri <uri>
```

```
(config-pchk)> no uri [ <uri> ]
```

| Argument | Value | Description |
|----------|-----------------|---|
| uri | <i>Hostname</i> | Name or address of remote HTTP or HTTPS host. |

Example (config-pchk)> **uri http://localhost:8888/**
 PingCheck::Profile: "TEST": add URI "http://localhost:8888/" for ► testing.

```
(config-pchk)> uri https://localhost:4343/
PingCheck::Profile: "TEST": add URI "https://localhost:4343/" ►
for testing.
```

```
(config-pchk)> no uri http://localhost:8888/
PingCheck::Profile: "TEST": URIs cleared.
```

```
(config-pchk)> no uri
PingCheck::Profile: "TEST": URIs cleared.
```

| Version | Description |
|---------|--|
| 4.00 | The ping-check profile uri command has been introduced. |

⁶ https://en.wikipedia.org/wiki/Uniform_Resource_Identifier

3.120 ppe

Description Enable Packet Processing Engine. By default, the setting is turned on.

Command with **no** prefix disables specified accelerator.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ppe <engine>
```

```
(config)> no ppe [<engine>]
```

Arguments

| Argument | Value | Description |
|----------|----------|-----------------------|
| engine | software | Software accelerator. |

Example

```
(config)> ppe software
Network::Interface::Rtx::Ppe: Software PPE enabled.
```

```
(config)> no ppe
Network::Interface::Rtx::Ppe: All PPE disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The ppe command has been introduced. |
| 2.05 | Argument engine was implemented. |

3.121 pppoe pass

Description Enable PPPoE Pass Through function. You can enter up to 10 network nodes.

Command with **no** prefix disables the function.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config)> pppoe pass through <wan-iface> <lan-iface>
```

```
(config)> no pppoe pass through
```

| Argument | Value | Description |
|-----------|------------------|--|
| wan-iface | <i>Interface</i> | The starting interface — full WAN-interface name or an alias. |
| lan-iface | <i>Interface</i> | The finishing interface — full LAN-interface name or an alias. |

Example

```
(config)> pppoe pass through Home ISP
Pppoe::Pass: Configured pass from "Bridge0" to "GigabitEthernet1".
```

```
(config)> no pppoe pass
Pppoe::Pass: Disabled.
```

| Version | Description |
|---------|--|
| 2.00 | The pppoe pass command has been introduced. |

3.122 printer

Description Access to a group of commands to configure the printer. If the printer is not found, the command tries to create it.

Command with **no** prefix deletes the printer.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-printer)

Synopsis

```
(config)> printer <id>
```

```
(config)> no printer <id>
```

| Argument | Value | Description |
|----------|---------------|-------------|
| id | <i>String</i> | Printer ID. |

Example

```
(config)> printer 0924:3cf4
(config-printer)>
```

| Version | Description |
|---------|---|
| 2.00 | The printer command has been introduced. |

3.122.1 printer bidirectional

Description Enable bidirectional mode for printer.
Command with **no** prefix disables bidirectional mode.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-printer)> bidirectional
(config-printer)> no bidirectional
```

Example

```
(config-printer)> bidirectional
Printer::Manager: A bidirectional mode enabled.

(config-printer)> no bidirectional
Printer::Manager: A bidirectional mode disabled.
```

History

| Version | Description |
|---------|---|
| 2.04 | The printer bidirectional command has been introduced. |

3.122.2 printer debug

Description Enable debug mode for printer. If you use no argument, debug level 1 will be set.
Command with **no** prefix disables debug mode.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-printer)> debug [ level <level> ]
(config-printer)> no debug
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| level | <i>Integer</i> | The debug level. Can take values in the range from 1 to 3 inclusively. |

Example

```
(config-printer)> debug level 3
Printer::Manager: a debug level set to 3.
```



```
(config-printer)> no debug
Printer::Manager: A debug mode disabled.
```

History

| Version | Description |
|---------|---|
| 2.04 | The printer debug command has been introduced. |

3.122.3 printer firmware

Description Set printer firmware file.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-printer)> firmware <firmware>
```

```
(config-printer)> no firmware
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------|
| firmware | <i>String</i> | Path to firmware file. |

Example

```
(config-printer)> firmware storage:sihp1018.dl
Printer::Manager: A printer firmware set.
```

```
(config-printer)> no firmware
Printer::Manager: A printer firmware set.
```

History

| Version | Description |
|---------|--|
| 2.00 | The printer firmware command has been introduced. |

3.122.4 printer name

Description Assign an arbitrary name to the printer.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

```
(config-printer)> name <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------|
| name | <i>String</i> | Arbitrary printer name. |

Example

```
(config-printer)> name Canon
Printer::Manager: A printer name set.
```

History

| Version | Description |
|---------|--|
| 2.00 | The printer name command has been introduced. |

3.122.5 printer port

Description

Set printer port if printer type is direct. By default, TCP-port is 9100.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

```
(config-printer)> port <port>
```

Arguments

| Argument | Value | Description |
|----------|----------------|---------------|
| port | <i>Integer</i> | Printer port. |

Example

```
(config-printer)> port 2012
Printer::Manager: A port set.
```

History

| Version | Description |
|---------|--|
| 2.00 | The printer port command has been introduced. |

3.122.6 printer status-polling

Description

Enable printer status polling. By default, status polling is enabled.

Command with **no** prefix disables printer status polling.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-printer)> status-polling
```

```
(config-printer)> no status-polling
```

Example

```
(config-printer)> status-polling
Printer::Manager: Status polling enabled.
```

```
(config-printer)> no status-polling
Printer::Manager: Status polling disabled.
```

History

| Version | Description |
|---------|--|
| 3.04 | The printer status-polling command has been introduced. |

3.122.7 printer type

Description Set printer type.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

```
(config-printer)> type <type>
```

Arguments

| Argument | Value | Description |
|----------|--------|--|
| type | cifs | Printer connected via CIFS . |
| | direct | Printer connected directly to device. |

Example

```
(config-printer)> type direct
Printer::Manager: A printer type set.
```

History

| Version | Description |
|---------|--|
| 2.00 | The printer type command has been introduced. |

3.123 schedule

Description Access to a group of commands to configure the schedule. If the schedule is not found, the command tries to create it.

Command with **no** prefix deletes the schedule.

Prefix no Yes

Change settings Yes

Multiple input Yes**Group entry** (config-sched)

Synopsis

```
(config)> schedule <name>
```

```
(config)> no schedule <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------|
| name | <i>String</i> | A schedule name. |

History

| Version | Description |
|---------|--|
| 2.06 | The schedule command has been introduced. |

3.123.1 schedule action

Description Specify the actions to be performed according to the selected schedule.
Command with **no** prefix cancels the action.

Prefix no Yes**Change settings** Yes**Multiple input** Yes

Synopsis

```
(config-sched)> action <action> <min> <hour> <dow>
```

```
(config-sched)> no action [ <action> <min> <hour> <dow> ]
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| action | start | Action of the beginning. |
| | stop | Action of the end. |
| min | <i>Integer</i> | The minutes. |
| hour | <i>Integer</i> | The hours. |
| dow | <i>Integer</i> | Days of the week, separated by commas. 0 and 7 mean Sunday. * means daily. |

Example

```
(config-sched)> action start 0 9 1,2,3,4,5  
Core::Schedule::Manager: Updated schedule "WIFI".
```

History

| Version | Description |
|---------|---|
| 2.06 | The schedule action command has been introduced. |

3.123.2 schedule description

Description Set description for the selected schedule.
Command with **no** prefix deletes the description.

Prefix no Yes

Change settings No

Multiple input No

Synopsis

```
(config-sched)> description <description>
(config-sched)> no description
```

Arguments

| Argument | Value | Description |
|-------------|---------------|--------------------------|
| description | <i>String</i> | Text of the description. |

Example

```
(config-sched)> description "Schedule for on/off Access Point"
Core::Schedule::Manager: Updated description of schedule "WIFI".
```

History

| Version | Description |
|---------|--|
| 2.06 | The schedule description command has been introduced. |

3.123.3 schedule led

Description Set LED indication for the scheduled events. SelectedSchedule control should be chosen with **system led** command.

Command with **no** prefix removes LED indication.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-sched)> led <action>
(config-sched)> no led
```

Arguments

| Argument | Value | Description |
|----------|-------|---|
| action | start | LED shows the beginning of the scheduled event. |
| | stop | LED shows the end of the scheduled event. |

Example (config-sched)> **led start**
Core::Schedule::Led: Selected schedule "111".

| Version | Description |
|---------|--|
| 2.08 | The schedule led command has been introduced. |

3.124 service afp

Description Enable [AFP](#) service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service afp
(config)> no service afp
```

Example (config)> **service afp**
Afp::Server: Enabled.

| Version | Description |
|---------|---|
| 2.06 | The service afp command has been introduced. |

3.125 service cifs

Description Enable [CIFS](#) service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service cifs
(config)> no service cifs
```

Example (config)> **service cifs**
Cifs::ServerT smb: Enabled.

```
(config)> no service cifs
Cifs::ServerT smb: Disabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.00 | The service cifs command has been introduced. |

3.126 service dhcp

Description Enable *DHCP server*. If there is not enough settings to start the service (see [ip dhcp pool](#)), the service will not respond to the network. As soon as there are enough settings, the service will be enabled automatically.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service dhcp
(config)> no service dhcp
```

Example

```
(config)> service dhcp
service enabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.00 | The service dhcp command has been introduced. |

3.127 service dhcp-relay

Description Enable DHCP-relay. If there are not enough settings to start the service (see [ip dhcp relay lan](#), [ip dhcp relay server](#), [ip dhcp relay wan](#)), it will not respond within the network. As soon as there are enough settings, the service will be enabled automatically.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service dhcp-relay
(config)> no service dhcp-relay
```

Example

```
(config)> service dhcp-relay
service enabled.
```

History

| Version | Description |
|---------|--|
| 2.00 | The service dhcp-relay command has been introduced. |

3.128 service dlna

Description

Enable [DLNA](#) service. If there are not enough settings to start the service (see [dlna](#)), it will not respond within the network. As soon as there are enough settings, the service will be enabled automatically.

Command with **no** prefix stops the service.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service dlna
```

```
(config)> no service dlna
```

Example

```
(config)> service dlna
DLNA server enabled.
```

History

| Version | Description |
|---------|--|
| 2.00 | The service dlna command has been introduced. |

3.129 service dns-proxy

Description

Enable DNS-proxy. To configure the parameters of the service, use [Section 3.21 on page 119](#) group of commands.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service dns-proxy
```

Example

```
(config)> service dns-proxy
Dns::Manager: DNS proxy enabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The service dns-proxy command has been introduced. |

3.130 service ftp

Description Enable FTP server that provides the user with access to connected USB-drives, configuration files and a file with firmware update.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service ftp
(config)> no service ftp
```

Example

```
(config)> service ftp
FTP server enabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The service ftp command has been introduced. |

3.131 service http

Description Enable HTTP server that provides the user with Web-interface to configure Carrier.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service http
(config)> no service http
```

Example

```
(config)> service http
HTTP server enabled.
```

History

| Version | Description |
|---------|--|
| 2.00 | The service http command has been introduced. |

3.132 service igmp-proxy

Description Enable IGMP-proxy. For the service functioning it is necessary to have one upst ream interface and at least one downst ream interface. If there are not enough settings to run the service, the service will not function. As soon as there are enough settings, the service will start automatically.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service igmp-proxy
(config)> no service igmp-proxy
```

Example

```
(config)> service igmp-proxy
IGMP proxy enabled.
```

History

| Version | Description |
|---------|--|
| 2.00 | The service igmp-proxy command has been introduced. |

3.133 service internet-checker

Description Enable the Internet-checker to monitor the state of Internet connection on the device. By default, service is enabled.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service internet-checker
(config)> no service internet-checker
```

Example

```
(config)> service internet-checker
Network::InternetChecker: Hosts check enabled.
```

```
(config)> no service internet-checker
Network::InternetChecker: Hosts check disabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.13 | The service internet-checker command has been introduced. |

3.134 service ipsec

Description Enable *IPsec* service. By default, service is disabled.
Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service ipsec
(config)> no service ipsec
```

Example

```
(config)>service ipsec
IpSec::Manager: Service enabled.
```

| History | Version | Description |
|---------|---------|---|
| | 2.06 | The service ipsec command has been introduced. |

3.135 service kabinet

Description Enable KAbINET authenticator service. By default it is disabled.
Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service kabinet
(config)> no service kabinet
```

Example

```
(config)> service kabinet
Kabinet::Authenticator: Authenticator enabled.

(config)> no service kabinet
Kabinet::Authenticator: Authenticator disabled.
```

History

| Version | Description |
|---------|---|
| 2.02 | The service kabinet command has been introduced. |

3.136 service mdns

Description

Enable *mDNS* service. By default, service is enabled.

Command with **no** prefix stops the service.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service mdns
```

```
(config)> no service mdns
```

Example

```
(config)>service mdns
```

```
(config)>no service mdns
```

History

| Version | Description |
|---------|--|
| 2.15 | The service mdns command has been introduced. |

3.137 service mws

Description

Enable *MWS* service. By default, service is disabled.

Command with **no** prefix stops the service.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service mws
```

```
(config)> no service mws
```

Example

```
(config)> service mws
Mws::Controller: Enabled.
```

```
(config)> no service mws
Mws::Controller: Disabled.
```

| History | Version | Description |
|---------|---------|---|
| | 2.15 | The service mws command has been introduced. |

3.138 service ntce

Description Enable *NTCE* service. By default it is disabled.
Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service ntce
(config)> no service ntce
```

Example

```
(config)> service ntce
Ntce::Manager: Enabled.
```

| History | Version | Description |
|---------|---------|---|
| | 2.09 | The service ntce command has been introduced. Previous command name is service dpi . |

3.139 service ntp

Description Enable *NTP* service. By default it is enabled.
Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service ntp
(config)> no service ntp
```

Example

```
(config)> service ntp
Ntp::Client: NTP service enabled.
```

```
(config)> no service ntp
Ntp::Client: NTP service disabled.
```

History

| Version | Description |
|---------|--|
| 3.09 | The service ntp command has been introduced. Previous command name is service ntp-client . |

3.140 service snmp

Description

Enable *SNMP* service. By default, the service is disabled.

Command with **no** prefix stops the service.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service snmp
```

```
(config)> no service snmp
```

Example

```
(config)> service snmp
Snmp::Manager: SNMP service was enabled.
(config)> no service snmp
Snmp::Manager: SNMP service was disabled.
```

History

| Version | Description |
|---------|--|
| 2.08 | The service snmp command has been introduced. |

3.141 service ssh

Description

Enable the SSH server that provides the user with command line interface to configure the device.

Command with **no** prefix stops the service.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service ssh
```

```
(config)> no service ssh
```

Example

```
(config)> service ssh
Ssh::Manager: SSH server enabled.
```

```
(config)> no service ssh
Ssh::Manager: SSH server disabled.
```

History

| Version | Description |
|---------|---|
| 2.12 | The service ssh command has been introduced. |

3.142 service sstp-server

Description

Enable *SSTP* server.

Command with **no** prefix stops the service.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service sstp-server
```

```
(config)> no service sstp-server
```

Example

```
(config)> service sstp-server
SstpServer::Manager: Service enabled.
```

```
(config)> no service sstp-server
SstpServer::Manager: Service disabled.
```

History

| Version | Description |
|---------|---|
| 2.12 | The service sstp-server command has been introduced. |

3.143 service telnet

Description

Enable the telnet server that provides the user with command line interface to configure the device.

Command with **no** prefix stops the service.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> service telnet
```

```
(config)> no service telnet
```

Example (config)> **service tel**
Telnet server enabled.

History

| Version | Description |
|---------|--|
| 2.00 | The service telnet command has been introduced. |

3.144 service torrent

Description Enable BitTorrent client that provides the user with peer-to-peer sharing of very large files, such as entire movies and TV shows.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service torrent
(config)> no service torrent
```

Example (config)> **service torrent**
server enabled.

History

| Version | Description |
|---------|---|
| 2.00 | The service torrent command has been introduced. |

3.145 service udpxy

Description Enable *udpxy* service.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service udpxy
(config)> no service udpxy
```

Example (config)> **service udpxy**
Udpxy::Manager: a service enabled.

| History | Version | Description |
|---------|---------|---|
| | 2.03 | The service udpxy command has been introduced. |

3.146 service upnp

Description Enable *UPnP* service.
Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service upnp
(config)> no service upnp
```

| History | Version | Description |
|---------|---------|--|
| | 2.00 | The service upnp command has been introduced. |

3.147 service vpn-server

Description Enable VPN server.
Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service vpn-server
(config)> no service vpn-server
```

Example

```
(config)> service vpn-server
VpnServer::Manager: Service enabled.

(config)> no service vpn-server
VpnServer::Manager: Service disabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.04 | The service vpn-server command has been introduced. |

3.148 show

Description Access to a group of commands to display various diagnostic information about system. All commands of this group do not change system settings.

Prefix no No

Change settings No

Multiple input No

Group entry (show)

Synopsis (config)> **show**

| Version | Description |
|---------|--|
| 2.00 | The show command has been introduced. |

3.148.1 show access

Description Show user access for directory on USB drive.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **access** <directory>

| Argument | Value | Description |
|-----------|---------------|----------------------------------|
| directory | <i>String</i> | Path to the folder on USB drive. |

Example (show)> **access PENDRIVE:doc**

```

user:
  name: admin
  assigned: write
  effective: write
  exists: yes
user:
  name: test
  assigned: read
  effective: read
  exists: yes

```

History

| Version | Description |
|---------|---|
| 2.00 | The show access command has been introduced. |

3.148.2 show acme

Description Show *ACME* client status.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **acme**

Example

```
(show)> acme
acme:
    real-time: yes
    ndns-domain: mytest.keenetic.pro
    ndns-domain-acme: yes
    ndns-domain-error: no
    default-domain: cc6b5a71a7644903b51a5454.keenetic.io
    account-pending: no
    account-running: no
    get-pending: no
    get-running: no
    revoke-pending: no
    revoke-running: no
    reissue-queue-size: 0
    revoke-queue-size: 0
    retries: 0
    checker-timer: 82499
    apply-timer: 0
    acme-account: 36902346
```

History

| Version | Description |
|---------|---|
| 2.11 | The show acme command has been introduced. |

3.148.3 show afp

Description Show *AFP* server status.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> afp
```

Example

```
(show)> afp
  enabled: yes
  automount: yes
  permissive: yes

  share:
    mount: C253-062D:
    label: FLASH
  timemachine: yes
  description:
    active: yes

  share:
    mount: C253-062D:/FOR_AFP
    label: AFP
  timemachine: yes
  description:
    active: yes
```

History

| Version | Description |
|---------|--|
| 2.06 | The show afp command has been introduced. |

3.148.4 show associations

Description

Show list of wireless stations associated with an access point. If you use no argument, the entire list of wireless stations will be displayed.

Prefix no

No

Change settings

No

Multiple input

No

Interface type

Access Point

Synopsis

```
(show)> associations [ <name> ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | An access point name. You can see the list of available access points with help of associations [Tab] command. |

Example

```
(show)> associations [Tab]

Usage template:
```

```
associations [{name}]
```

Choose:

```
WifiMaster0/AccessPoint2
WifiMaster1/AccessPoint1
WifiMaster0/AccessPoint3
WifiMaster0/AccessPoint0
    AccessPoint
WifiMaster1/AccessPoint2
WifiMaster0/AccessPoint1
    GuestWiFi
WifiMaster1/AccessPoint3
WifiMaster1/AccessPoint0
    AccessPoint_5G
```

```
(show)> associations WifiMaster0/AccessPoint0
```

```
station:
    mac: ec:1f:72:d3:6d:3f
    ap: WifiMaster0/AccessPoint0
authenticated: 1
    txrate: 130
    uptime: 3804
    txbytes: 2058837
    rxbytes: 25023483
    ht: 20
    mode: 11n
    gi: 800
    rssi: -26
    mcs: 15

station:
    mac: 20:aa:4b:5c:09:0e
    ap: WifiMaster0/AccessPoint0
authenticated: 1
    txrate: 270
    uptime: 19662
    txbytes: 19450396
    rxbytes: 70800065
    ht: 40
    mode: 11n
    gi: 800
    rssi: -41
    mcs: 15
```

History

| Version | Description |
|---------|---|
| 2.00 | The show associations command has been introduced. |

3.148.5 show button

Description Show information about specified system button. If you use no argument, the entire list of all buttons on the device will be displayed. Available buttons depend on hardware configuration.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> button [name]`

| Argument | Value | Description |
|----------|---------------|------------------|
| name | <i>String</i> | The button name. |

Example

```
(show)> button FN1

  buttons:
    button, name = FN1:
      is_switch: no
      position: 2
    position_count: 2
      clicks: 0
      elapsed: 0
      hold_delay: 3000
```

| Version | Description |
|---------|---|
| 2.00 | The show button command has been introduced. |

3.148.6 show button bindings

Description Show a list of actions associated with device buttons.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> button bindings`

Example

```
(show)> button bindings

bindings:

  binding, index = 0:
```

```
        button: RESET
        action: click
    active_handler: Reboot
    default_handler: Reboot
    protected: yes

    binding, index = 1:
        button: RESET
        action: hold
    active_handler: FactoryReset
    default_handler: FactoryReset
    protected: yes

    binding, index = 2:
        button: WLAN
        action: click
    active_handler: WpsStartMainAp
    default_handler: WpsStartMainAp
    protected: no

    binding, index = 3:
        button: WLAN
        action: double-click
    active_handler: WpsStartMainAp5
    default_handler: WpsStartMainAp5
    protected: no

    binding, index = 4:
        button: WLAN
        action: hold
    active_handler: WifiToggle
    default_handler: WifiToggle
    protected: no

    binding, index = 5:
        button: FN1
        action: click
    active_handler: UnmountUsbl
    default_handler: UnmountUsbl
    protected: no

    binding, index = 6:
        button: FN1
        action: double-click
    active_handler:
    default_handler:
    protected: no

    binding, index = 7:
        button: FN1
        action: hold
    active_handler:
    default_handler:
    protected: no
```

```

binding, index = 8:
  button: FN2
  action: click
  active_handler: UnmountUsb2
  default_handler: UnmountUsb2
  protected: no

binding, index = 9:
  button: FN2
  action: double-click
  active_handler:
  default_handler:
  protected: no

binding, index = 10:
  button: FN2
  action: hold
  active_handler:
  default_handler:
  protected: no

```

History

| Version | Description |
|---------|--|
| 2.03 | The show button bindings command has been introduced. |

3.148.7 show button handlers

Description Show a list of available button handlers in the system.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> button handlers`

Example `(show)> button handlers`

```

handlers:
  handler, name = LedToggle:
  short_description: toggle system LED states
  protected: no
  switch_related: no

  handler, name = FactoryReset:
  short_description: reset a configuration to factory ►
defaults
  protected: yes

```



```

switch_related: no

    handler, name = UnmountUsb1:
short_description: unmount USB 1 port storages
    protected: no
    switch_related: no

    handler, name = UnmountUsb2:
short_description: unmount USB 2 port storages
    protected: no
    switch_related: no

    handler, name = Reboot:
short_description: reboot the system
    protected: yes
    switch_related: no

    handler, name = DlnaDirectoryRescan:
short_description: rescan DLNA directory for newer media ▶
files
    protected: no
    switch_related: no

    handler, name = DlnaDirectoryFullRescan:
short_description: remove a DLNA database and rescan a ▶
DLNA directory
    protected: no
    switch_related: no

    handler, name = DectHandsetRegistrationToggle:
short_description: toggle a DECT handset registration
    protected: no
    switch_related: no

    handler, name = DectHandsetPagingToggle:
short_description: toggle a DECT handset paging
    protected: no
    switch_related: no

    handler, name = OpkgRunScript:
short_description: run Opkg script
    protected: no
    switch_related: no

    handler, name = TorrentAltSpeedToggle:
short_description: toggle a Torrent alternative speed ▶
mode
    protected: no
    switch_related: no

    handler, name = TorrentClientStateToggle:
short_description: toggle a Torrent client state
    protected: no
    switch_related: no

```

```

        handler, name = WifiToggle:
short_description: on/off all Wi-Fi interfaces
        protected: no
        switch_related: no

        handler, name = WpsStartMainAp:
short_description: start WPS (2.4 GHz main access point)
        protected: no
        switch_related: no

        handler, name = WpsStartMainAp5:
short_description: start WPS (5 GHz main access point)
        protected: no
        switch_related: no

        handler, name = WifiGuestApToggle:
short_description: toggle a guest access point state ►
(2.4 GHz)
        protected: no
        switch_related: no

        handler, name = WpsStartStation:
short_description: start WPS (2.4 GHz Wi-Fi station)
        protected: no
        switch_related: no

        handler, name = WpsStartStation5:
short_description: start WPS (5 GHz Wi-Fi station)
        protected: no
        switch_related: no

```

History

| Version | Description |
|---------|--|
| 2.03 | The show button handlers command has been introduced. |

3.148.8 show chilli profiles

Description Show the list of available *RADIUS* server profiles.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **chilli profiles**

Example (show)> **chilli profiles**

```

profile:
  name: Iron Wi-Fi
  url: https://www.ironwifi.com/
  description: Hosted RADIUS and Captive Portal

  preset:
    uamserver: ►
https://europe-west3.ironwifi.com/api/pages/uam/

    radius:
      server1: 35.198.88.176

  radiuslocationid:

    dns:
      dns1: 8.8.8.8
      dns2: 8.8.4.4

  custom: uamsecret

  custom: radiussecret

  custom: radiusnasid

```

History

| Version | Description |
|---------|--|
| 2.10 | The show chilli profiles command has been introduced. |

3.148.9 show cifs

Description Show *CIFS* server status.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **cifs**

Example (show)> **cifs**

```

enabled: yes

master: no

automount: yes

permissive: yes

share:

```

```

mount: 9430B54530B52EDC:
label: 9430B54530B52EDC
description:
active: no

```

History

| Version | Description |
|---------|---|
| 2.00 | The show cifs command has been introduced. |

3.148.10 show clock date

Description Show the current system date.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **clock date**

Example

```

(show)> clock date

weekday: 4
  day: 18
  month: 1
  year: 2018
  hour: 8
  min: 46
  sec: 2
  msec: 660
  dst: inactive

  tz:
  locality: GMT
  stdoffset: 0
  dstoffset: 0
  usedst: no
  rule: GMT0
  custom: no

```

History

| Version | Description |
|---------|---|
| 2.00 | The show clock date command has been introduced. |

3.148.11 show clock timezone-list

Description Show the list of available timezones.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> clock timezone-list`

Example `(show)> clock timezone-list`

```
timezones:
  tz:
    locality: Adak
    stdoffset: -36000
    dstoffset: -32400
  tz:
    locality: Aden
    stdoffset: 10800
    dstoffset: -1
  tz:
    locality: Almaty
    stdoffset: 21600
    dstoffset: -1
  tz:
    locality: Amsterdam
    stdoffset: 3600
    dstoffset: 7200
  tz:
    locality: Anadyr
    stdoffset: 43200
    dstoffset: -1
...
...
...
```

History

| Version | Description |
|---------|--|
| 2.00 | The show clock timezone-list command has been introduced. |

3.148.12 show components status

Description Display components updates status.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> component status`

Example

```
(show)> components status
```

```
    update:
      state: idle
```

```
(show)> components status
```

```
    update:
      state: running
      progress: 41
```

History

| Version | Description |
|---------|--|
| 4.00 | The show components status command has been introduced. |

3.148.13 show configurator status**Description**

Show information about system configurator.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> configurator status
```

Example

```
(show)> configurator status
```

```
touch: Thu, 18 Oct 2018 14:37:25 GMT
```

```
    header, name = Model: Keenetic Giga
```

```
    header, name = Version: 2.06.1
```

```
    header, name = Agent: http/rci
```

```
    header, name = Last change: Thu, 18 Oct 2018 14:37:25 ▶
```

```
GMT
```

```
    serving:
```

```
      name: Session /var/run/ndm.core.socket
```

```
      time: 0.000397
```

```
    request, host = 192.168.1.42, name = admin:
```

```
      parse: show configurator status
```

History

| Version | Description |
|---------|--|
| 2.06 | The show configurator status command has been introduced. |

3.148.14 show credits

Description Show the license information about specified installed package in KeeneticOS. If you use no argument, the entire list of all installed packages on the device will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> credits [<package>]`

Arguments

| Argument | Value | Description |
|----------|---------------|---------------|
| package | <i>String</i> | Package name. |

Example

```
(show)> credits

package:
  name: accel-ppp
  title: High performance accel-ppp VPN server
  homepage: https://accel-ppp.org/

package:
  name: accel-ppp-l2tp
  title: L2TP plugin for accel-ppp
  homepage: https://accel-ppp.org/

package:
  name: accel-ppp-pptp
  title: PPTP plugin for accel-ppp
  homepage: https://accel-ppp.org/

package:
  name: accel-ppp-sstp
  title: SSTP plugin for accel-ppp
  homepage: https://accel-ppp.org/

package:
  name: avahi-daemon
  title: An mDNS/DNS-SD implementation (daemon)
  homepage: http://www.avahi.org/

package:
  name: coova-chilli
```

```
        title: Wireless LAN HotSpot controller (Coova ►
Chilli Version)
        homepage: http://www.coova.org/CoovaChilli

        package:
            name: crconf
            title: Netlink-based CryptoAPI userspace ►
management utility
            homepage:

        package:
            name: dhcpv6
            title: DHCPv6 client + server
            homepage: http://wide-dhcpv6.sourceforge.net/

        package:
            name: dropbear
            title: Small SSH2 client/server
            homepage: http://matt.ucc.asn.au/dropbear/

        package:
            name: iperf3-ssl
            title: Internet Protocol bandwidth measuring ►
tool with iperf_auth support
            homepage: https://github.com/esnet/iperf

        package:
            name: kernel
            title: Linux kernel
            homepage: http://www.kernel.org/

        package:
            name: kmod-ipt-account
            title: ACCOUNT netfilter module
            homepage:

        package:
            name: kmod-ipt-chaos
            title: CHAOS netfilter module
            homepage:

        package:
            name: kmod-ipt-compat-xtables
            title: API compatibilty layer netfilter module
            homepage:

        package:
            name: kmod-ipt-condition
            title: Condition netfilter module
            homepage:

        package:
            name: kmod-ipt-delude
            title: DELUDE netfilter module
```



```
homepage:

package:
  name: kmod-ipt-dhcpmac
  title: DHCPMAC netfilter module
homepage:

package:
  name: kmod-ipt-dnetmap
  title: DNETMAP netfilter module
homepage:

package:
  name: kmod-ipt-fuzzy
  title: fuzzy netfilter module
homepage:

package:
  name: kmod-ipt-geoip
  title: geoip netfilter module
homepage:

package:
  name: kmod-ipt-iface
  title: iface netfilter module
homepage:

package:
  name: kmod-ipt-ipmark
  title: IPMARK netfilter module
homepage:

package:
  name: kmod-ipt-ipp2p
  title: IPP2P netfilter module
homepage:

package:
  name: kmod-ipt-ipv4options
  title: ipv4options netfilter module
homepage:

package:
  name: kmod-ipt-length2
  title: length2 netfilter module
homepage:

package:
  name: kmod-ipt-logmark
  title: LOGMARK netfilter module
homepage:

package:
  name: kmod-ipt-lscan
```

```

        title: lscan netfilter module
        homepage:

package:
    name: kmod-ipt-netflow
    title: Netflow netfilter module for Linux kernel
    homepage: http://ipt-netflow.sourceforge.net/

package:
    name: kmod-ipt-psd
    title: psd netfilter module
    homepage:

package:
    name: kmod-ipt-quota2
    title: quota2 netfilter module
    homepage:

package:
    name: kmod-ipt-sysrq
    title: SYSRQ netfilter module
    homepage:

package:
    name: kmod-ipt-tarpit
    title: TARPIT netfilter module
    homepage:

package:
    name: kmod-nf-nathelper-rtsp
    title: RTSP Conntrack and NAT helpers
    homepage: https://github.com/maru-sama/rtsp-linux

package:
    name: kmod-wireguard
    title: WireGuard kernel module
    homepage:

package:
    name: libattr
    title: Extended attributes (xattr) manipulation ▶
library    homepage: http://savannah.nongnu.org/projects/attr

package:
    name: libav
    title: This package contains Libav library
    homepage: https://libav.org/

package:
    name: libavahi
    title: An mDNS/DNS-SD implementation (No D-Bus)
    homepage: http://www.avahi.org/

```

```

package:
  name: libcurl
  title: A client-side URL transfer library
  homepage: http://curl.haxx.se/

package:
  name: libdaemon
  title: A lightweight C library that eases the ▶
writing of UNIX daemons
  homepage: ▶
http://0pointer.de/lennart/projects/libdaemon/

package:
  name: libdb47
  title: Berkeley DB library (4.7)
  homepage: http://www.sleepycat.com/products/db.shtml

package:
  name: libevent
  title: Event notification library
  homepage: http://www.monkey.org/~provos/libevent/

package:
  name: libexif
  title: Library for JPEG files with EXIF tags
  homepage: https://libexif.github.io

package:
  name: libexpat
  title: An XML parsing library
  homepage: https://libexpat.github.io/

package:
  name: libgcrypt
  title: GNU crypto library
  homepage: ▶
http://directory.fsf.org/security/libgcrypt.html

package:
  name: libgpg-error
  title: GnuPG error handling helper library
  homepage: ▶
http://www.gnupg.org/related_software/libgpg-error/

package:
  name: libid3tag
  title: An ID3 tag manipulation library
  homepage: https://www.underbit.com/products/mad/

package:
  name: libjpeg
  title: The Independent JPEG Group's JPEG runtime ▶
library
  homepage: http://www.ijg.org/

```

```
package:
  name: liblzo
  title: A real-time data compression library
  homepage: http://www.oberhumer.com/opensource/lzo/

package:
  name: libnghttp2
  title: Library implementing the framing layer ▶
of HTTP/2
  homepage: https://nghttp2.org/

package:
  name: libopenssl
  title: Open source SSL toolkit (libraries ▶
(libcrypto.so, libssl.so))
  homepage: http://www.openssl.org/

package:
  name: libpcap
  title: Low-level packet capture library
  homepage: http://www.tcpdump.org/

package:
  name: libtommath
  title: A free number theoretic multiple-precision ▶
integer library
  homepage: https://www.libtom.net/

package:
  name: libusb
  title: A library for accessing Linux USB devices
  homepage: http://libusb.info/

package:
  name: mini_snmpd
  title: Lightweight SNMP daemon
  homepage: http://troglobit.github.io/mini-snmpd.html

package:
  name: minidlna
  title: UPnP A/V & DLNA Media Server
  homepage: http://minidlna.sourceforge.net/

package:
  name: miniupnpd
  title: Lightweight UPnP daemon
  homepage: http://miniupnp.tuxfamily.org/

package:
  name: netatalk
  title: netatalk
  homepage: http://netatalk.sourceforge.net
```

```
package:
  name: nginx
  title: Nginx web server
  homepage: http://nginx.org/

package:
  name: nginx-stream-module
  title: Nginx stream module
  homepage:

package:
  name: openvpn
  title: Open source VPN solution using OpenSSL
  homepage: http://openvpn.net

package:
  name: pjproject
  title: PJSIP
  homepage: http://www.pjsip.org/

package:
  name: pureftpd
  title: FTP server
  homepage: http://www.pureftpd.org

package:
  name: radvd
  title: Router advertisement daemon
  homepage: http://www.litech.org/radvd/

package:
  name: sstp-client
  title: SSTP client for Linux
  homepage: http://sstp-client.sourceforge.net/

package:
  name: strongswan
  title: Strongswan IKEv1/IKEv2 ISAKMP and IPsec
  homepage: https://www.strongswan.org/

suite
package:
  name: transmission-daemon
  title: A free, lightweight BitTorrent client
  homepage: http://www.transmissionbt.com

package:
  name: tspc
  title: TSP client
  homepage: http://www.broker.ipv6.ac.uk

package:
  name: tzdata
  title: Timezone data files
```

```

homepage: https://www.iana.org/time-zones

package:
  name: udpxy
  title: Convert UDP IPTV streams into HTTP stream
  homepage: http://sourceforge.net/projects/udpxy

package:
  name: zlib
  title: Library implementing the deflate ►
compression method
  homepage: http://www.zlib.net/

```

```
(show)> credits nginx
```

```

copying: /*
        * Copyright (C) 2002-2019 Igor Sysoev
        * Copyright (C) 2011-2019 Nginx, Inc.
        * All rights reserved.
        *
        * Redistribution and use in source and binary ►
forms, with or without
        * modification, are permitted provided that ►
the following conditions
        * are met:
        * 1. Redistributions of source code must ►
retain the above copyright
        * notice, this list of conditions and the ►
following disclaimer.
        * 2. Redistributions in binary form must ►
reproduce the above copyright
        * notice, this list of conditions and the ►
following disclaimer in the
        * documentation and/or other materials ►
provided with the distribution.
        *
        * THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND ►
CONTRIBUTORS ``AS IS'' AND
        * ANY EXPRESS OR IMPLIED WARRANTIES, ►
INCLUDING, BUT NOT LIMITED TO, THE
        * IMPLIED WARRANTIES OF MERCHANTABILITY AND ►
FITNESS FOR A PARTICULAR PURPOSE
        * ARE DISCLAIMED. IN NO EVENT SHALL THE ►
AUTHOR OR CONTRIBUTORS BE LIABLE
        * FOR ANY DIRECT, INDIRECT, INCIDENTAL, ►
SPECIAL, EXEMPLARY, OR CONSEQUENTIAL
        * DAMAGES (INCLUDING, BUT NOT LIMITED TO, ►
PROCUREMENT OF SUBSTITUTE GOODS
        * OR SERVICES; LOSS OF USE, DATA, OR PROFITS; ►
OR BUSINESS INTERRUPTION)
        * HOWEVER CAUSED AND ON ANY THEORY OF ►
LIABILITY, WHETHER IN CONTRACT, STRICT
        * LIABILITY, OR TORT (INCLUDING NEGLIGENCE ►
OR OTHERWISE) ARISING IN ANY WAY

```

```
* OUT OF THE USE OF THIS SOFTWARE, EVEN IF ►
ADVISED OF THE POSSIBILITY OF
* SUCH DAMAGE.
*/
```

History

| Version | Description |
|---------|--|
| 3.01 | The show credits command has been introduced. |

3.148.15 show crypto ike key

Description Show info about selected *IKE* key. If you use no argument, the entire list of *IKE* keys will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> crypto ike key [name]`

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------------|
| name | <i>String</i> | Name of selected <i>IKE</i> key. |

Example

```
(show)> crypto ike key

IpSec:
  ike_key, name = test:
    type: address
    id: 10.10.10.10

  ike_key, name = test2:
    type: any
    id: ►
```

History

| Version | Description |
|---------|---|
| 2.06 | The show crypto ike key command has been introduced. |

3.148.16 show crypto map

Description Show info about selected *IPsec* crypto map. If you use no argument, the entire list of *IPsec* crypto maps will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **crypto map** [*map-name*]

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------------|
| map-name | <i>String</i> | Name of selected crypto map. |

Example

```
(show)> crypto map test

IpSec:
crypto_map, name = test:
  config:
    remote_peer: ipsec.example.com
  crypto_ipsec_profile_name: prof1
    mode: tunnel

    local_network:
      net: 172.16.200.0
      mask: 24
      protocol: IPv4

    remote_network:
      net: 172.16.201.0
      mask: 24
      protocol: IPv4

  status:
    primary_peer: true

    phase1:
      name: test
      unique_id: 572
      ike_state: ESTABLISHED
    establish_time: 1451301596
      rekey_time: 0
      reauth_time: 1451304277
      local_addr: 10.10.10.15
      remote_addr: 10.10.10.20
      ike_version: 2
      local_spi: 00a6ebfc9d90f1c2
      remote_spi: 3cd201ef496df75c
      local_init: yes
      ike_cypher: aes-cbc-256
      ike_hmac: sha1
      ike_dh_group: 2

    phase2_sa_list:
      phase2_sa, index = 0:
        unique_id: 304
        request_id: 185
        sa_state: INSTALLED
```



```

mode: TUNNEL
protocol: ESP
encapsulation: yes
local_spi: ca59bfcf
remote_spi: cde23d83
ipsec_cypher: esp-aes-256
ipsec_hmac: esp-sha1-hmac
ipsec_dh_group:
in_bytes: 7152
in_packets: 115
in_time: 1451302507
out_bytes: 6008
out_packets: 98
out_time: 1451302507
rekey_time: 1451305159
local_ts: 172.16.200.0/24
remote_ts: 172.16.201.0/24

state: PHASE2_ESTABLISHED

```

History

| Version | Description |
|---------|---|
| 2.06 | The show crypto map command has been introduced. |

3.148.17 show defaults

Description Show the general default wireless and system parameters.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **defaults**

Example (show)> **defaults**

```

servicetag: 014635737374***
servicehost: ndss.keenetic.ndmsystems.com
servicepass: *****
wlanssid: Keenetic-0000
wlankey: xFxTH***
wlanwps: 75534***
country: RU
ndmhwid: KN-1010
ctrlsum: 4712e0849ccea477ccdd18e2fedb***
serial: S1749WF***
signature: valid
integrity: ok
locked: yes

```

History

| Version | Description |
|---------|---|
| 2.00 | The show defaults command has been introduced. |

3.148.18 show dlna

Description Show DLNA server status.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> dlna`

Example

```
(show)> dlna
      running: yes
```

History

| Version | Description |
|---------|---|
| 2.00 | The show dlna command has been introduced. |

3.148.19 show dns-proxy

Description Show a list of current *DNS over TLS* and *DNS over HTTPS* servers.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> dns-proxy`

Example

```
(show)> dns-proxy
      proxy-status:
        proxy-name: System

      proxy-config:
rpc_port = 54321
rpc_ttl = 10000
rpc_wait = 10000
timeout = 7000
proceed = 500
stat_file = /var/ndnproxymain.stat
stat_time = 10000
```

```

dns_server = 127.0.0.1:40500 .
dns_server = 127.0.0.1:40501 .
dns_server = 127.0.0.1:40508 .
dns_server = 127.0.0.1:40509 .
static_a = my.keenetic.net 78.47.125.180
static_a = cc6b5a71a7644903b51a5454.keenetic.io 78.47.125.180
static_a = myhome23.keenetic.pro 78.47.125.180
set-profile-ip 127.0.0.1 0
set-profile-ip ::1 0
dns_tcp_port = 53
dns_udp_port = 53

        proxy-stat:

# ndnproxy statistics file

Total incoming requests: 809
Proxy requests sent:      659
Cache hits ratio:        0.192 (155)
Memory usage:            44.41K

DNS Servers

        Ip      Port  R.Sent  A.Rcvd  NX.Rcvd  ▶
Med.Resp  Avg.Resp  Rank
        127.0.0.1  40500      2       2       0       ▶
40ms      40ms     10
        127.0.0.1  40501     652     651     0       ▶
17ms      17ms     10
        127.0.0.1  40508      2       0       0       ▶
0ms       0ms      4
        127.0.0.1  40509      3       1       0       ▶
326ms     326ms    3

        proxy-safe:

        proxy-tls:
        server-tls:
            address: 1.1.1.1
            port: 853
            sni: cloudflare-dns.com
            spki:
            interface:

        server-tls:
            address: 8.8.8.8
            port: 853
            sni: dns.google.com
            spki:
            interface:

        proxy-tls-filters:

```

```

proxy-https:
server-https:
    uri: https://dns.adguard.com/dns-query
    format: dnsm
    spki:
    interface:

server-https:
    uri: ▶
https://cloudflare-dns.com/dns-query?ct=application/dns-json
    format: json
    spki:
    interface:

proxy-https-filters:

```

History

| Version | Description |
|---------|--|
| 3.01 | The show dns-proxy command has been introduced. |

3.148.20 show dns-proxy filter presets

Description Show the list of filtering presets. There is always at least 1 preset, but can be many more.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> dns-proxy filter presets [<lang>]`

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| lang | <i>String</i> | Language to show in “description” and “short-description” fields. If requested lang is absent English version will be returned. |

Output

| Element | Description |
|-------------------|--|
| description | Long readable profile description. Has translation map. |
| id | Short name to be used in dns-proxy commands. |
| short-description | Short description to be used in combo-boxes and titles. Has translation map. |
| stale | Set to true when preset is obsolete and no longer works. |

Example

```
(show)> dns-proxy filter presets en

version: 4

presets:
    id: opendns-family
    url: ▶
https://www.opendns.com/home-internet-security/
    stale: no
    short-description: OpenDNS - FamilyShield
    description: Blocks domains that are categorized as ▶
Tasteless, Proxy/Anonymizer, Sexuality and Pornography.

presets:
    id: quad9-security
    url: https://quad9.net/home/individuals/
    stale: no
    short-description: Quad9 - Security Protection
    description: Blocks malicious hostnames to protect ▶
against a wide range of threats such as malware, phishing, ▶
spyware, and botnets. Improves performance in addition to ▶
guaranteeing
    privacy.

presets:
    id: cleanbrowsing-security
    url: https://cleanbrowsing.org/filters
    stale: no
    short-description: CleanBrowsing - Security Filter
    description: Blocks access to phishing, spam, malware ▶
and malicious domains. Our database of malicious domains is ▶
updated hourly and considered to be one of the best in the ▶
industry.
    Note that it does not block adult content.

presets:
    id: cleanbrowsing-adult
    url: https://cleanbrowsing.org/filters
    stale: no
    short-description: CleanBrowsing - Adult Filter
    description: Blocks access to all adult, pornographic ▶
and explicit sites. It does not block proxy or VPNs, nor ▶
mixed-content sites. Sites like Reddit are allowed. Google and ▶
Bing are set
    to the Safe Mode. Malicious and Phishing ▶
domains are blocked.
```

History

| Version | Description |
|---------|---|
| 3.08 | The show dns-proxy filter presets command has been introduced. |

3.148.21 show dns-proxy filter profiles

Description Show the list of filtering profiles.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> dns-proxy filter profiles`

Example `(show)> dns-proxy filter profiles`

```
profiles:
  id: DnsProfile0
  description: test
```

History

| Version | Description |
|---------|--|
| 3.08 | The show dns-proxy filter profiles command has been introduced. |

3.148.22 show dpn document

Description Show *DPN* agreement text.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> dpn document [<version>] [<language>]`

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| version | <i>String</i> | Version of <i>DPN</i> . If not specified, the latest version is shown. |
| language | <i>String</i> | The language of <i>DPN</i> . If not specified, the English version is shown. |

Example

```
(show)> dpn document
20200330

DEVICE PRIVACY NOTICE

Last update 2020-30-03

This End User License Agreement (this "Agreement") constitutes ►
```

a valid and binding agreement between Keenetic Limited, including all affiliates and subsidiaries (“Keenetic”, “us”, “our” or “we”) and You (as defined below) of the Software (as defined below), including the Software installed onto any one of our Keenetic products (the “Product”) and/or the Software legally obtained from or provided by an App Platform (as defined below) authorised by Keenetic. Keenetic and You shall be collectively referred to as the “Parties”, and individually as a “Party”.

```
(show)> dpn document 20200330 es
20200330
```

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Última actualización 30/03/2020

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History

| Version | Description |
|---------|---|
| 3.05 | The show dpn document command has been introduced. |

3.148.23 show dpn list

| | |
|------------------------|--|
| Description | Show the list of <i>DPN</i> available in the system. |
| Prefix no | No |
| Change settings | No |
| Multiple input | No |

Synopsis

```
(show)> dpn list
```

Example

```
(show)> dpn list
    dpn:
    version: 20200330

    document:
      lang: de

      format: txt

      format: md

    document:
      lang: en

      format: txt

      format: md

    document:
      lang: es

      format: txt

      format: md

    document:
      lang: fr

      format: txt

      format: md

    document:
      lang: it

      format: txt

      format: md

    document:
      lang: pl

      format: txt

      format: md

    document:
      lang: pt

      format: txt
```



```

format: md
document:
  lang: ru
format: txt
format: md
document:
  lang: sv
format: txt
format: md
document:
  lang: tr
format: txt
format: md
document:
  lang: uk
format: txt
format: md

```

History

| Version | Description |
|---------|---|
| 3.05 | The show dpn list command has been introduced. |

3.148.24 show dot1x

Description Show 802.1x client status on the interface. To manage 802.1x client status on the interface authentication must be configured with [interface authentication](#) group of commands.

Prefix no No

Change settings No

Interface type Ethernet

Multiple input No

Synopsis | (show)> **dot1x** [*interface*]

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | An Ethernet interface name. You can see the list of available Ethernet interfaces with help of dot1x [Tab] command. |

Example

```
(show)> dot1x [Tab]

Usage template:
    dot1x [{name}]

Choose:
    GigabitEthernet1
        ISP
WifiMaster0/AccessPoint2
WifiMaster1/AccessPoint1
WifiMaster0/AccessPoint3
WifiMaster0/AccessPoint0
    AccessPoint

(show)> dot1x ISP

dot1x:
    id: FastEthernet0/Vlan2
    state: CONNECTING
```

History

| Version | Description |
|---------|--|
| 2.02 | The show dot1x command has been introduced. |

3.148.25 show drivers

Description Show the list of loaded kernel drivers.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **drivers**

Example

```
(show)> drivers

module:
    name: rt2860v2_sta
    size: 546736
    used: 0
    subs: -
module:
    name: rt2860v2_ap
```

```

        size: 554192
        used: 2
        subs: -
    module:
        name: rndis_host
        size: 5024
        used: 0
        subs: -
    module:
        name: dwc_otg
        size: 68416
        used: 0
        subs: -
    module:
        name: lm
        size: 1344
        used: 1
        subs: dwc_otg, [permanent]
    ...
    ...
    ...

```

History

| Version | Description |
|---------|--|
| 2.00 | The show drivers command has been introduced. |

3.148.26 show dyndns updaters

Description Show the list of available DynDNS providers.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **dyndns updaters**

Example (show)> **dyndns updaters**

```

    updater:
        type: dyndns
        url: https://account.dyn.com/dns/dyndns
        api: http://members.dyndns.org/nic/update

    updater:
        type: noip
        url: https://www.noip.com/
        api: http://dynupdate.no-ip.com/nic/update

```

History

| Version | Description |
|---------|--|
| 2.12 | The show dyndns updaters command has been introduced. |

3.148.27 show easyconfig status

Description Show EasyConfig status and settings.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **easyconfigstatus**

Example

```
(show)> easyconfig status
```

```
easyconfig:
  checked: Tue Aug  6 11:50:21 2019
  enabled: yes
  reliable: yes
gateway-accessible: yes
  dns-accessible: yes
  host-accessible: yes
  internet: yes

gateway:
  interface: GigabitEthernet1
  address: 193.0.175.2
  failures: 0
  accessible: yes
  excluded: no

hosts:
  host:
    name: google.com
    failures: 0
    resolved: no
    accessible: no
```

History

| Version | Description |
|---------|--|
| 2.00 | The show easyconfig status command has been introduced. |

3.148.28 show eula document

Description Show [EULA](#) agreement text.

| | |
|------------------------|----|
| Prefix no | No |
| Change settings | No |
| Multiple input | No |

Synopsis | (show)> **eula document** [<version>] [<language>]

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| version | <i>String</i> | Version of <i>EULA</i> . If not specified, the latest version is shown. |
| language | <i>String</i> | The language of <i>EULA</i> . If not specified, the English version is shown. |

Example

```
(show)> eula document 20181001
20181001
```

```
KEENETIC LIMITED
End User License Agreement
```

This End User License Agreement (this “Agreement”) constitutes a valid and binding agreement between Keenetic Limited, including all affiliates and subsidiaries (“Keenetic”, “us”, “our” or “we”) and You (as defined below) of the Software (as defined below), including the Software installed onto any one of our Keenetic products (the “Product”) and/or the Software legally obtained from or provided by an App Platform (as defined below) authorised by Keenetic. Keenetic and You shall be collectively referred to as the “Parties”, and individually as a “Party”.

```
(show)> eula document 20181001 ru
20181001
```

```
KEENETIC LIMITED
Лицензионное соглашение с конечным пользователем
```

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History

| Version | Description |
|---------|--|
| 2.15 | The show eula document command has been introduced. |

3.148.29 show eula list

Description Show the list of *EULA* available in the system.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> eula list`

Example

```
(show)> eula list
  eula:
    version: 20181001

  document:
    lang: en

    format: md

    format: txt

  document:
    lang: ru

    format: md

    format: txt

  document:
    lang: tr

    format: md

    format: txt

  document:
    lang: uk

    format: md

    format: txt
```

History

| Version | Description |
|---------|--|
| 2.15 | The show eula list command has been introduced. |

3.148.30 show interface

Description Show information of specified interface. If you use no argument, the entire list of all network interfaces will be displayed.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Synopsis `(show)> interface <name>`

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full name or an alias of the interface to display. |

Example

Example 3.1. Review the status of switch ports

The command **show interface** displays different information depending on the interface type. In particular, for FastEthernet0 switch it shows current state of physical ports, speed and duplex, on top of general information.

```
(config)> show interface FastEthernet0

      id: GigabitEthernet0
      index: 0
      type: GigabitEthernet
      description:
      interface-name: GigabitEthernet0
      link: up
      connected: yes
      state: up
      mtu: 1500
      tx-queue: 2000

      port, name = 1:
      id: GigabitEthernet0/0
      index: 0
      interface-name: 1
      type: Port
      link: up
      speed: 1000
      duplex: full
      auto-negotiation: on
      flow-control: on
      eee: off
      last-change: 4578.185413
      last-overflow: 0
      public: no
```

```

    port, name = 2:
      id: GigabitEthernet0/1
      index: 1
interface-name: 2
  type: Port
  link: down
  last-change: 4590.205656
  last-overflow: 0
  public: no

    port, name = 3:
      id: GigabitEthernet0/2
      index: 2
interface-name: 3
  type: Port
  link: up

    role, for = GigabitEthernet0/Vlan2: inet

    speed: 100
    duplex: full
auto-negotiation: on
  flow-control: off
    eee: off
  last-change: 4570.078144
  last-overflow: 0
  public: yes

    port, name = 4:
      id: GigabitEthernet0/3
      index: 3
interface-name: 4
  type: Port
  link: down
  last-change: 4590.202571
  last-overflow: 0
  public: no

```

History

| Version | Description |
|---------|--|
| 2.00 | The show interface command has been introduced. |

3.148.31 show interface antennas

| | |
|------------------------|-------------------------------|
| Description | Show antenna signal strength. |
| Prefix no | No |
| Change settings | No |
| Multiple input | No |

Interface type Usb

Synopsis (show)> **interface** *<name>* **antennas**

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Output

| Element | Description |
|---------|---|
| channel | Antenna number. |
| rs si | Received signal strength indicator. |
| rs rq | Reference signal received quality for 4G only. |
| rs rp | Reference signal received power for 4G only. |
| phase | Offset phase for 4G only. |
| ecio | Ratio of the received/good energy to the interference/bad energy for 3G only. |

Example

```
(show)> interface UsbQmi0 antennas

    antenna:
      channel: 0
      rssi: -61
      rsrp: -81
      rsrq: -8
      phase: 0

    antenna:
      channel: 1
      rssi: -94
      rsrp: -120
      rsrq: -10
      phase: 6
```

History

| Version | Description |
|---------|---|
| 3.05 | The show interface antennas command has been introduced. |

3.148.32 show interface bands

Description Show available 3G/LTE bands.

Prefix no No

Change settings No

Multiple input No

Interface type Usb

Synopsis `(show)> interface <name> bands`

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(show)> interface UsbQmi0 bands

    umts:
      band: 1
      enabled: yes

    umts:
      band: 5
      enabled: yes

    lte:
      band: 1
      enabled: yes

    lte:
      band: 3
      enabled: yes

    lte:
      band: 7
      enabled: yes

    lte:
      band: 20
      enabled: yes
```

History

| Version | Description |
|---------|--|
| 3.05 | The show interface bands command has been introduced. |

3.148.33 show interface bridge

Description Display interface bridge status.

Prefix no No

Change settings No

Multiple input No**Interface type** Bridge**Synopsis** | (show)> **interface** <name> **bridge****Arguments**

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full name or an alias of the interface to display. |

Output

| Element | Value |
|-----------|---------------------------|
| members | Root node. |
| interface | Interface name. |
| link | Link state of interface. |
| inherited | Attribute of inheritance. |

Example(show)> **interface Bridge1 bridge**

```

members:
  interface, link = no, inherited = yes:
    WifiMaster0/AccessPoint2
  interface, link = yes: UsbLte0

```

History

| Version | Description |
|---------|---|
| 2.03 | The show interface bridge command has been introduced. |

3.148.34 show interface cells

Description Show base stations in mobile networks.**Prefix no** No**Change settings** No**Multiple input** No**Interface type** Usb**Synopsis** | (show)> **interface** <name> **cells****Arguments**

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Output

| Element | Description |
|---------|-------------------------------------|
| phy-id | Cell identity (Cell ID). |
| rsssi | Received signal strength indicator. |

Example

```
(show)> interface UsbQmi0 cells
```

```
cells:
  phy-id: fc
  rssi: -71
```

```
cells:
  phy-id: 15b
  rssi: -71
```

```
cells:
  phy-id: 187
  rssi: -72
```

History

| Version | Description |
|---------|--|
| 3.05 | The show interface cells command has been introduced. |

3.148.35 show interface channel-utilization rrd

Description

Show specific data from the channel utilization monitor.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> interface <name>channel-utilization rrd <attribute> [
<detail>]
```

Arguments

| Argument | Value | Description |
|-----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the Wi-Fi interface. |
| attribute | load | Channel load percentage. |
| | valid | The data is valid. |
| detail | 0 | RRD detalization level 64 x 3-seconds. It is used by default if the parameter is not specified. |
| | 1 | RRD detalization level 64 x 1-minutes. |
| | 2 | RRD detalization level 64 x 3-minutes. |
| | 3 | RRD detalization level 64 x 30-minutes. |

Example

```
(show)> interface WifiMaster1 channel-utilization rrd load 1
```

```
data:
    t: 578928.500000
    v: 0

data:
    t: 578868.500000
    v: 1

data:
    t: 578808.500000
    v: 1

data:
    t: 578748.500000
    v: 2

data:
    t: 578688.500000
    v: 1

data:
    t: 578628.500000
    v: 0

data:
    t: 578568.500000
    v: 1

data:
    t: 578508.500000
    v: 1

data:
    t: 578448.500000
    v: 1

data:
    t: 578388.500000
    v: 0

data:
    t: 578328.500000
    v: 1

data:
    t: 578268.500000
    v: 1

data:
    t: 578208.500000
    v: 1
```

```

data:
    t: 578148.500000
    v: 6

data:
    t: 578088.500000
    v: 1

data:
    t: 578028.500000
    v: 11

```

History

| Version | Description |
|---------|--|
| 3.09 | The show interface channel-utilization rrd command has been introduced. |

3.148.36 show interface channels

Description Show information about the specified wireless interface channels.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis `(show)> interface <name> channels`

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full name or an alias of the interface to display. |

Output

| Element | Value |
|----------------|---|
| channels | Root node. |
| channel, index | Record number in the list. |
| number | Channel number. |
| ext-40-above | Ability to expand channel above. |
| ext-40-below | Ability to expand channel below. |
| vhc-80 | Ability to expand channel up to 80 MHz. |

Example

```

(show)> interface WifiMaster0 channels

channels:

```

```
channel, index = 0:
  number: 1
ext-40-above: yes
ext-40-below: no
  vht-80: yes

channel, index = 1:
  number: 2
ext-40-above: yes
ext-40-below: yes
  vht-80: yes

channel, index = 2:
  number: 3
ext-40-above: yes
ext-40-below: yes
  vht-80: yes

channel, index = 3:
  number: 4
ext-40-above: yes
ext-40-below: yes
  vht-80: yes

channel, index = 4:
  number: 5
ext-40-above: yes
ext-40-below: yes
  vht-80: yes

channel, index = 5:
  number: 6
ext-40-above: yes
ext-40-below: yes
  vht-80: yes

channel, index = 6:
  number: 7
ext-40-above: yes
ext-40-below: yes
  vht-80: yes

channel, index = 7:
  number: 8
ext-40-above: yes
ext-40-below: yes
  vht-80: yes
...
...
...
```

History

| Version | Description |
|---------|---|
| 2.03 | The show interface channels command has been introduced. |

3.148.37 show interface chilli

Description Show information about statistics of connected clients to the [RADIUS](#) hotspot.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> interface <name> chilli
```

Arguments

| Argument | Value | Description |
|----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. |

Example

```
(show)> interface Chilli0 chilli

      host:
      session-id: 4bf7c55f00000006
          user: 44w3c1
          ip: 10.1.30.3
          mac: 55:a3:f9:51:b4:11
      start-time: 3884
      end-time: 0
      idle-time: 9
idle-time-limit: 0
      tx-bytes: 695682
      tx-bytes-limit: 0
      rx-bytes: 1627453
      rx-bytes-limit: 0
      tx-speed: 0
      tx-speed-limit: 0
      rx-speed: 0
      rx-speed-limit: 0
```

History

| Version | Description |
|---------|---|
| 2.10 | The show interface chilli command has been introduced. |

3.148.38 show interface country-codes

Description Show the list of available country codes on a radio interface.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis `(show)> interface <name> country-codes`

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full name or an alias of the interface to display. |

Output

| Element | Value |
|---------------|---------------|
| country-codes | Root node. |
| code | Country code. |
| country | Country name. |

Example

```
(show)> interface WifiMaster0 country-codes

country-codes:
  country-code:
    code: AL
    country: Albania

  country-code:
    code: DZ
    country: Algeria

  country-code:
    code: AR
    country: Argentina

  country-code:
    code: AM
    country: Armenia

  country-code:
    code: AU
    country: Australia

...
...
...
```

History

| Version | Description |
|---------|--|
| 2.03 | The show interface country-codes command has been introduced. |

3.148.39 show interface mac

Description Show the table of MAC addresses of the switch.

Prefix no No

Change settings No

Multiple input No

Interface type Switch

Synopsis `(show)> interface <name> mac`

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full name or an alias of the interface to display. |

Example

```
(show)> interface FastEthernet0 mac
=====
Port  MAC                               Aging
=====
0     b0:b2:dc:70:c4:28                     6
0     f0:1b:21:6d:9a:c5                     4
0     00:0c:43:76:20:77                     6
0     b4:18:d1:6e:b5:6a                     3
0     40:4a:03:78:01:af                     2
0     84:8e:0c:3f:79:05                     5
0     ec:43:f6:73:0a:99                     6
0     ec:43:f6:04:2b:05                     6
0     b2:b2:dc:5f:09:b3                     1
0     ec:43:f6:72:4e:51                     6
0     00:30:48:93:91:a7                     6
0     f0:c1:f1:95:c3:fb                     5
0     b8:ca:3a:8a:c7:43                     6
0     ec:43:f6:da:78:79                     5
0     10:7b:ef:59:7b:61                     2
0     ec:43:f6:ff:f8:8b                     6
0     58:8b:f3:65:8c:91                     5
0     ec:43:f6:cf:0e:ef                     2
0     00:ee:bd:a1:18:51                     6
0     ec:43:f6:72:4e:69                     6
0     90:e2:ba:07:9a:81                     6
0     00:00:5e:00:01:01                     6
0     00:08:9b:dc:8d:17                     4
0     50:e5:49:58:2b:5a                     6
0     90:e2:ba:07:99:55                     6
0     ec:43:f6:04:36:8d                     6
0     ec:43:f6:05:44:49                     6
0     de:06:21:02:b3:e2                     6
0     40:4a:03:60:80:05                     6
0     00:0c:29:d5:84:c0                     6
```

```

0      00:08:9b:dc:92:55      6
0      00:08:9b:dc:92:56      6
0      00:1b:0c:7f:b6:41      6
0      10:2a:b3:a6:86:18      5
0      10:7b:ef:df:83:a7      1
0      01:00:5e:00:00:fb      0
.....

```

History

| Version | Description |
|---------|--|
| 2.00 | The show interface mac command has been introduced. |

3.148.40 show interface name-server

Description Show a list of current addresses of DNS resolvers used on the interface.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **interface** *<name>* **name-server**

Arguments

| Argument | Value | Description |
|----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. |

Example

```
(show)> interface WifiMaster1/WifiStation0 name-server
```

```

server:
  address: 1.1.1.1
  port: 0
  domain:
  global: 0
  service: Dns::Manager
interface:

```

```

server:
  address: 9.9.9.9
  port: 0
  domain:
  global: 0
  service: Dns::Manager
interface:

```

```

server:
  address: 8.8.8.8
  port: 0
  domain:
  global: 0

```

```

    service: Dns::Manager
    interface:

    server:
    address: 192.168.133.1
    port: 0
    domain:
    global: 65318
    service: WifiMaster1/WifiStation0 DHCP client
    interface: WifiMaster1/WifiStation0

    server-tls:
    address: 8.8.8.8
    port: 0
    sni: dns.google
    spki:
    interface:
    domain:

```

History

| Version | Description |
|---------|--|
| 3.09 | The show interface name-server command has been introduced. |

3.148.41 show interface operators

Description

Show list of available mobile operators. Before running this command, you must first run the network scan command [interface mobile scan](#). After the scan is complete, the list will be available until the modem is restarted.

Prefix no

No

Change settings

No

Multiple input

No

Interface type

Usb

Synopsis

```
(show)> interface <name> operators
```

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(show)> interface UsbQmi0 operators

    scanning: complete
    age: 80

```

```
operator:
  plmn: 25011
  name: YOTA
  mobile: 4G

  status: used

  status: preferred

operator:
  plmn: 25099
  name: Beeline
  mobile: 4G

  status: available

  status: roaming

  status: forbidden

operator:
  plmn: 25020
  name: Tele2
  mobile: 3G

  status: available

  status: roaming

  status: forbidden

operator:
  plmn: 25001
  name: MTS
  mobile: 3G

  status: available

  status: roaming

  status: forbidden

operator:
  plmn: 25099
  name: Beeline
  mobile: 3G

  status: available

  status: roaming

  status: forbidden

operator:
```

```

        plmn: 25020
        name: Tele2
        mobile: 4G

        status: available

        status: roaming

        status: forbidden

operator:
        plmn: 25001
        name: MTS
        mobile: 4G

        status: available

        status: roaming

        status: forbidden

```

History

| Version | Description |
|---------|--|
| 2.12 | The show interface operators command has been introduced. |

3.148.42 show interface rf e2p

Description Show the current contents of all calibration data cells.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis `(show)> interface <name> rf e2p`

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full name or an alias of the interface to display. |

Example

```

(show)> interface WifiMaster0 rf e2p

[0x0000]:5392 [0x0002]:0103 [0x0004]:43EC [0x0006]:04F6
[0x0008]:042B [0x000A]:5392 [0x000C]:1814 [0x000E]:8001
[0x0010]:0000 [0x0012]:5392 [0x0014]:1814 [0x0016]:0000
[0x0018]:0001 [0x001A]:FF6A [0x001C]:0213 [0x001E]:FFFF

```

```

[0x0020]:FFFF [0x0022]:FFC1 [0x0024]:9201 [0x0026]:FFFF
[0x0028]:43EC [0x002A]:04F6 [0x002C]:052B [0x002E]:FFFF
[0x0030]:758E [0x0032]:4301 [0x0034]:FF22 [0x0036]:0025
[0x0038]:FFFF [0x003A]:012D [0x003C]:FFFF [0x003E]:FAD9
[0x0040]:88CC [0x0042]:FFFF [0x0044]:FF0A [0x0046]:0000
[0x0048]:0000 [0x004A]:0000 [0x004C]:0000 [0x004E]:FFFF
[0x0050]:FFFF [0x0052]:1111 [0x0054]:1111 [0x0056]:1111
[0x0058]:1011 [0x005A]:1010 [0x005C]:1010 [0x005E]:1010
[0x0060]:1111 [0x0062]:1211 [0x0064]:1212 [0x0066]:1312
[0x0068]:1313 [0x006A]:1413 [0x006C]:1414 [0x006E]:2264
[0x0070]:00F1 [0x0072]:1133 [0x0074]:0000 [0x0076]:FC62
[0x01E8]:FFFF [0x01EA]:FFFF [0x01EC]:FFFF [0x01EE]:FFFF
[0x01F0]:FFFF [0x01F2]:FFFF [0x01F4]:FFFF [0x01F6]:FFFF
[0x01F8]:FFFF [0x01FA]:FFFF [0x01FC]:FFFF [0x01FE]:FFFF
.....

```

History

| Version | Description |
|---------|---|
| 2.04 | The show interface rf e2p command has been introduced. |

3.148.43 show interface rrd

Description Show network interface loading on the principle of Round Robin Database.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **interface** *<name>* **rrd** *<attribute>* [*<detail>*]

Arguments

| Argument | Value | Description |
|-----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. |
| attribute | rxspeed | Value of data rate type. |
| | txspeed | |
| detail | 0 | Level of detail is 1 second. |
| | 1 | Level of detail is 2 seconds. |
| | 2 | Level of detail is 3 seconds. |
| | 3 | Level of detail is 5 seconds. |
| | 4 | Level of detail is 15 seconds. |
| | 5 | Level of detail is 30 seconds. |
| | 6 | Level of detail is 1 minute. |
| | 7 | Level of detail is 2 minutes. |

| Argument | Value | Description |
|----------|-------|--------------------------------|
| | 8 | Level of detail is 3 minutes. |
| | 9 | Level of detail is 5 minutes. |
| | 10 | Level of detail is 15 minutes. |
| | 11 | Level of detail is 30 minutes. |

Example

```
(show)> interface GigabitEthernet1 rrd rxspeed
```

```
data:
```

```
t: 90083.990183
```

```
v: 200880
```

```
data:
```

```
t: 90082.990128
```

```
v: 152392
```

```
data:
```

```
t: 90081.990193
```

```
v: 110976
```

```
data:
```

```
t: 90080.990142
```

```
v: 48000
```

```
data:
```

```
t: 90079.990178
```

```
v: 38366
```

```
(show)> interface GigabitEthernet1 rrd txspeed
```

```
data:
```

```
t: 87771.249486
```

```
v: 148202
```

```
data:
```

```
t: 87768.248974
```

```
v: 10694
```

```
data:
```

```
t: 87765.248977
```

```
v: 19070
```

```
data:
```

```
t: 87762.249105
```

```
v: 48909
```

```
data:
```

```
t: 87759.249105
```

```
v: 149277
```



```
(show)> interface GigabitEthernet1 rrd rxspeed 1

data:
      t: 90176.990054
      v: 164766

      data:
        t: 90174.990061
        v: 121828

      data:
        t: 90172.990052
        v: 95430

      data:
        t: 90170.990085
        v: 57559

      data:
        t: 90168.990119
        v: 97759
```

History

| Version | Description |
|---------|--|
| 2.10 | The show interface rrd command has been introduced. |

3.148.44 show interface spectrum rrd

Description Show specific data from the spectrum analyzer.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> interface <name>spectrum rrd <channel> <attribute> [ <detail> ]
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| name | <i>Interface</i> | Full name or an alias of the Wi-Fi interface. |
| channel | <i>Integer</i> | Wi-Fi channel number. |
| attribute | load | Channel load percentage. |
| | dfs | DFS enabled. |
| | radar | Radar detected. |
| | valid | The data is valid. |
| | active | The channel is used by the selected Wi-Fi radio interface. |

| Argument | Value | Description |
|----------|-------|---|
| detail | 0 | RRD detalization level 64 x 1-minute. This value is used by default if the parameter is not specified explicitly. |
| | 1 | RRD detalization level 64 x 3-minutes. |
| | 2 | RRD detalization level 64 x 30-minutes. |

Example

```
(show)> interface WifiMaster1 spectrum rrd 36 active
data:
    t: 976.500000
    v: 1

data:
    t: 916.500000
    v: 1

data:
    t: 856.500000
    v: 0

data:
    t: 796.500000
    v: 0

data:
    t: 736.500000
    v: 0

data:
    t: 676.500000
    v: 0

data:
    t: 616.500000
    v: 0

data:
    t: 556.500000
    v: 0

data:
    t: 496.500000
    v: 0

data:
    t: 436.500000
    v: 0

data:
    t: 376.500000
    v: 0
```

```

data:
  t: 316.500000
  v: 0

data:
  t: 256.500000
  v: 0

data:
  t: 196.500000
  v: 0

data:
  t: 136.500000
  v: 0

data:
  t: 76.500000
  v: 0

```

History

| Version | Description |
|---------|---|
| 3.08 | The show interface spectrum rrd command has been introduced. |

3.148.45 show interface stat

Description Show interface statistics.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> interface <name> stat`

Arguments

| Argument | Value | Description |
|----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. |

Example

```

(show)> interface WifiMaster0/AccessPoint0 stat

rxpackets: 137033
rxbytes: 23915722
rxerrors: 0
rxdropped: 0
txpackets: 847802
txbytes: 1192583473
txerrors: 0

```

```
txdropped: 0
timestamp: 11754.721178
```

History

| Version | Description |
|---------|---|
| 2.00 | The show interface stat command has been introduced. |

3.148.46 show interface traffic-counter

Description Show detailed information about the traffic counter status.

Prefix no No

Change settings No

Multiple input No

Interface type Usb

Synopsis

```
(show)> interface <name>traffic-counter
```

Arguments

| Argument | Value | Description |
|----------|------------------|--|
| name | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(show)> interface UsbQmi0 traffic-counter
```

```
enabled: true
value: 1.47
threshold: 3.96
limit: 4
remaining: 2.46
unit: GiB
```

```
trigger:
  limit: false
  threshold: false
```

```
saved: Fri Feb 19 18:56:29 2021
```

History

| Version | Description |
|---------|--|
| 3.06 | The show interface traffic-counter command has been introduced. |

3.148.47 show interface wps pin

Description Show the access point WPS PIN.

Prefix no No

Change settings No

Multiple input No

Interface type WiFi

Synopsis `(show)> interface <name> wps pin`

Arguments

| Argument | Value | Description |
|----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. |

Output

| Element | Value |
|---------|-------------|
| pin | Pin number. |

Example

```
(show)> interface WifiMaster0/AccessPoint0 wps pin
pin: 60180360
```

History

| Version | Description |
|---------|--|
| 2.00 | The show interface wps pin command has been introduced. |

3.148.48 show interface wps status

Description Show the access point WPS status.

Prefix no No

Change settings No

Multiple input No

Interface type WiFi

Synopsis `(show)> interface <name> wps status`

Arguments

| Argument | Value | Description |
|----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. |

Output

| Element | Value |
|---------------|-------------------------------------|
| wps | Root node. |
| configured | WPS is configured for Access Point. |
| auto-self-pin | Auto-self-pin mode state. |
| status | disabled enabled active |
| direction | send receive |
| mode | pbc self-pin peer |
| left | Time to session closure in seconds. |

Example

```
(show)> interface WifiMaster0/AccessPoint0 wps status

      wps:
        configured: yes
        auto-self-pin: yes
        status: active
        direction: send
        mode: self-pin
        left: infinite
```

History

| Version | Description |
|---------|---|
| 2.00 | The show interface wps status command has been introduced. |

3.148.49 show interface zerotier peers

Description Show a list of nodes.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> interface <name> zerotier peers
```

Arguments

| Argument | Value | Description |
|----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. |

Example

```
(show)> interface ZeroTier0 zerotier peers

    peer:
    address: 63f865ae71
    latency: 328
    role: PLANET
    version: -1.-1.-1

    path: 50.7.252.138/9993

    path: 50.7.252.138/9993

    peer:
    address: 458cde7190
    latency: 201
    role: PLANET
    version: -1.-1.-1

    path: 103.195.103.66/9993

    peer:
    address: 126127940c
    latency: 153
    role: LEAF
    version: 1.12.2

    path: 35.209.81.208/53871

    path: 35.209.81.208/53871

    path: 35.209.81.208/53871

    peer:
    address: fdfe04eba9
    latency: 129
    role: PLANET
    version: -1.-1.-1

    path: 84.17.53.155/9993

    peer:
    address: dfde9efeb9
    latency: 246
    role: PLANET
    version: -1.-1.-1

    path: 104.194.8.134/9993
```

History

| Version | Description |
|---------|---|
| 4.01 | The show interface zerotier peers command has been introduced. |

3.148.50 show internet status**Description**

Check for an Internet connection on the device. The "Internet" LED (the globe) lights up as a result of connecting to popular internet sites.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> internet status
```

Example

```
(show)> internet status

      checked: Tue Apr 24 17:14:37 2018
      reliable: yes
gateway-accessible: yes
      dns-accessible: yes
      host-accessible: yes
      internet: yes

gateway:
      interface: GigabitEthernet1
      address: 192.168.1.1
      failures: 0
      accessible: yes
      excluded: no

hosts:
      host:
        name: example.net
        failures: 0
        resolved: yes
        accessible: yes

      host:
        name: google.com
        failures: 0
        resolved: no
        accessible: no
```

History

| Version | Description |
|---------|--|
| 2.11 | The show internet status command has been introduced. |

3.148.51 show ip arp

Description Display the contents of the [ARP](#) cache.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **ip arp**

Example (show)> **ip arp**

```
=====
IP                MAC                Interface
=====
192.168.75.209    9c:b7:0d:91:e7:31  Home
82.135.72.150    00:0e:0c:09:db:60  ISP
192.168.75.106   88:53:2e:5e:07:1d  Home
192.168.75.201   7c:61:93:eb:6c:77  Home
192.168.75.203   00:19:d2:48:d6:dc  Home
10.10.30.34      a0:88:b4:40:9c:98  GuestWiFi
192.168.75.203   7c:61:93:ee:88:67  Home
192.168.75.211   00:26:c7:4a:e0:16  Home
82.138.72.163    34:51:c9:c6:53:cf  ISP
192.168.75.200   60:d8:19:cb:1b:36  Home
192.168.75.204   4c:0f:6e:4b:3c:ba  Home
82.138.72.129    00:30:48:89:b5:9f  ISP
```

History

| Version | Description |
|---------|---|
| 2.00 | The show ip arp command has been introduced. |

3.148.52 show ip dhcp bindings

Description Show [DHCP server](#) status. If you use no argument, the entire list of issued IPs for all pools will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **ip dhcp bindings** [<pool>]

Arguments

| Argument | Value | Description |
|----------|---------------|----------------|
| pool | <i>String</i> | The pool name. |

Example

```
(show)> ip dhcp bindings _WEBADMIN

      lease:
        ip: 192.168.15.211
        mac: 00:26:c7:4a:e0:16
        expires: 289
        hostname: lenovo
      lease:
        ip: 192.168.15.208
        mac: 00:19:d2:48:d6:dc
        expires: 258
        hostname: evo
      ...
      ...
```

History

| Version | Description |
|---------|---|
| 2.00 | The show ip dhcp bindings command has been introduced. |

3.148.53 show ip dhcp pool

Description

Show information about specified pool. If you use no argument, the information about all system pools will be displayed.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> ip dhcp pool [ <pool> ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------|
| pool | <i>String</i> | The pool name. |

Example

```
(show)> ip dhcp pool 123

      pool, name = 123:
      interface, binding = auto:
        network: 0.0.0.0/0
        begin: 0.0.0.0
        end: 0.0.0.0
        router, default = yes: 0.0.0.0
        lease, default = yes: 25200
        state: down
        debug: no
```

| History | Version | Description |
|---------|---------|---|
| | 2.03 | The show ip dhcp pool command has been introduced. |

3.148.54 show ip ftp

Description Show home directories for users with **ftp** tag.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip ftp**

Example

```
(show)> ip ftp

    enabled: yes
    permissive: yes
    root: ADATA SD600:
    path: /tmp/mnt/ADATA SD600

    user, index = 0:
    name: admin
    root: ADATA SD600:
    path: /tmp/mnt/ADATA SD600
```

| History | Version | Description |
|---------|---------|---|
| | 2.08 | The show ip ftp command has been introduced. |

3.148.55 show ip hotspot

Description Show hotspot hosts.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip hotspot**

Example

```
(show)> ip hotspot

    host:
    mac: 24:92:0e:92:e5:44
    via: 24:92:0e:92:e5:44
    ip: 192.168.1.41
```

```
hostname: android-41d997d510af8ff9
name:

interface:
    id: Bridge0
    name: Home
    description: Home network (Wired and wireless hosts)

    expires: 207328
registered: no
    access: permit
    schedule:
    active: yes
    rxbytes: 0
    txbytes: 0
    uptime: 4911
    link: up
    ssid: Bewilderbeast
    ap: WifiMaster0/AccessPoint0
authenticated: yes
    txrate: 65
    ht: 20
    mode: 11n
    gi: 800
    rssi: -24
    mcs: 7

host:
    mac: 20:aa:4b:5c:09:0e
    via: 20:aa:4b:5c:09:0e
    ip: 192.168.1.51
    hostname: Julia-PC
    name:

interface:
    id: Bridge0
    name: Home
    description: Home network (Wired and wireless hosts)

    expires: 212967
registered: no
    access: permit
    schedule:
    active: yes
    rxbytes: 0
    txbytes: 0
    uptime: 884
    link: up
    ssid: Bewilderbeast
    ap: WifiMaster0/AccessPoint0
authenticated: yes
    txrate: 130
    ht: 20
    mode: 11n
```

```

gi: 800
rssi: -37
mcs: 15

```

History

| Version | Description |
|---------|---|
| 2.09 | The show ip hotspot command has been introduced. |

3.148.56 show ip hotspot rrd

Description Show registered host traffic information of Round Robin Database.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> ip hotspot <mac> rrd <attribute> [<detail>]`

Arguments

| Argument | Value | Description |
|-----------|-------------|---------------------------------|
| mac | MAC address | MAC address of registered host. |
| attribute | rxspeed | Data rate type. |
| | txspeed | |
| | rxbytes | |
| | txbytes | |
| detail | 0 | Level of detail is 1 second. |
| | 1 | Level of detail is 2 seconds. |
| | 2 | Level of detail is 3 seconds. |
| | 3 | Level of detail is 5 seconds. |
| | 4 | Level of detail is 15 seconds. |
| | 5 | Level of detail is 30 seconds. |
| | 6 | Level of detail is 1 minute. |
| | 7 | Level of detail is 2 minutes. |
| | 8 | Level of detail is 3 minutes. |

| Argument | Value | Description |
|----------|-------|--------------------------------|
| | 9 | Level of detail is 5 minutes. |
| | 10 | Level of detail is 15 minutes. |
| | 11 | Level of detail is 30 minutes. |

Example

```
(show)> ip hotspot a8:1e:84:85:f2:11 rrd rxspeed
```

```

data:
    t: 2180.491855
    v: 16298

data:
    t: 2177.492050
    v: 9026

data:
    t: 2174.491916
    v: 11450

data:
    t: 2171.491843
    v: 626

```

```
(show)> ip hotspot a8:1e:84:85:f2:11 rrd txspeed
```

```

data:
    t: 2228.491841
    v: 952

data:
    t: 2225.491920
    v: 8813

data:
    t: 2222.492053
    v: 28746

data:
    t: 2219.491845
    v: 22474

```

```
(show)> ip hotspot a8:1e:84:85:f2:11 rrd rxbytes
```

```

data:
    t: 2279.491860
    v: 4197

data:
    t: 2276.492050

```

```

v: 362
data:
t: 2273.492040
v: 14337
data:
t: 2270.491862
v: 3281
(show)> ip hotspot a8:1e:84:85:f2:11 rrd txbytes
data:
t: 2360.491865
v: 3342
data:
t: 2357.491853
v: 142
data:
t: 2354.491949
v: 3333
data:
t: 2351.491847
v: 3390

```

History

| Version | Description |
|---------|---|
| 2.14 | The show ip hotspot rrd command has been introduced. |

3.148.57 show ip hotspot summary

Description Show the information about traffic usage for several registered hosts according to Round Robin Database. Sorting is in descending order.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> ip hotspot summary <attribute> [ detail <detail> ] [ count <count> ]
```

Arguments

| Argument | Value | Description |
|-----------|---------|--------------------------|
| attribute | rxspeed | Value of data rate type. |
| | txspeed | |
| | rxbytes | |

| Argument | Value | Description |
|----------|----------------|---|
| | txbytes | |
| detail | 0 | Level of detail is 3 seconds. |
| | 1 | Level of detail is 60 seconds. |
| | 2 | Level of detail is 180 seconds. |
| | 3 | Level of detail is 1440 seconds. |
| count | <i>Integer</i> | The number of hosts. If not specified, the entire list of hosts is displayed. |

Example

```
(show)> ip hotspot summary rxspeed
```

```

t: 255

host:
  active: yes
  name: toshiba
  rxspeed: 143964

host:
  active: yes
  name: lnx
  rxspeed: 24749

host:
  active: yes
  name: oneplus6
  rxspeed: 2558

```

```
(show)> ip hotspot summary rxspeed detail 0
```

```

t: 0

host:
  active: yes
  name: toshiba
  rxspeed: 186519

host:
  active: yes
  name: oneplus6
  rxspeed: 94298

host:
  active: yes
  name: lnx
  rxspeed: 8237

```

```
(show)> ip hotspot summary rxspeed count 3
```

```
t: 255
```



```

host:
  active: yes
  name: toshiba
  rxspeed: 390322

host:
  active: yes
  name: lnx
  rxspeed: 53518

host:
  active: yes
  name: oneplus6
  rxspeed: 5284

```

History

| Version | Description |
|---------|---|
| 2.14 | The show ip hotspot summary command has been introduced. |

3.148.58 show ip http proxy**Description** Show HTTP proxy status.**Prefix no** No**Change settings** No**Multiple input** No**Synopsis** (show)> **ip http proxy****Example** (show)> **ip http proxy**

```

proxy:
  name: modem
  domain: myhomemodem.keenetic.link
  upstream: http://192.168.8.1:80
  allow: public
  ndns: yes

```

History

| Version | Description |
|---------|--|
| 2.09 | The show ip http proxy command has been introduced. |

3.148.59 show ip http webdav**Description** Show [WebDAV](#) server status.

Prefix no No**Change settings** No**Multiple input** No**Synopsis** (show)> **ip http webdav**

Example

```
(show)> ip http webdav

    enabled: yes
    permissive: yes
    root: ext4-files:/
    path: /tmp/mnt/7a976f42-a16f-d501-3017-6b42a16fd501

    user, index = 0:
        name: admin
        root:
        path:

    user, index = 1:
        name: enpa
        root: ext4-files:/
        path: ►
/tmp/mnt/7a976f42-a16f-d501-3017-6b42a16fd501
```

History

| Version | Description |
|---------|---|
| 3.04 | The show ip http webdav command has been introduced. |

3.148.60 show ip name-server

Description Show a list of current IPv4 and IPv6 addresses of DNS servers in order of decreasing priority.**Prefix no** No**Change settings** No**Multiple input** No**Synopsis** (show)> **ip name-server****Example** (show)> **ip name-server**

```
server:
    address: 1.1.1.1
    port: 0
    domain:
    global: 0
```

```

    service: Dns::Manager
    interface:

server:
  address: 9.9.9.9
  port: 0
  domain:
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 2001:4860:4860::8888
  port: 0
  domain: ISP
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 193.0.174.21
  port: 0
  domain:
  global: 64520
  service: Dhcp::Client-GigabitEthernet1
  interface: GigabitEthernet1

server:
  address: 2a02:290:0:1::4
  port: 0
  domain:
  global: 64520
  service: Ip6::Dhcp::Client-GigabitEthernet1
  interface: GigabitEthernet1

server:
  address: 10.2.0.1
  port: 0
  domain:
  global: 43
  service: Dns::InterfaceSpecific-Wireguard5
  interface: Wireguard5

```

History

| Version | Description |
|---------|---|
| 2.00 | The show ip name-server command has been introduced. |

3.148.61 show ip nat

Description Show network address translation table.

Prefix no No**Change settings** No**Multiple input** No**Synopsis** (show)> **ip nat [tcp]****Arguments**

| Argument | Value | Description |
|----------|----------------|--|
| tcp | <i>Keyword</i> | Only the records with <i>TCP</i> type will be displayed. |

Example

```
(show)> ip nat
```

| Type | In Out | Source | Port | Destination | Port | Packets |
|------|-------------|-----------------|-------|-----------------|-------|---------|
| udp | | 10.1.30.34 | 6482 | 111.221.77.159 | 40005 | 1 |
| | | 111.221.77.159 | 40005 | 82.138.7.164 | 6482 | 1 |
| udp | | 220.27.130.179 | 6896 | 82.138.7.164 | 28197 | 1 |
| | | 192.168.15.204 | 28197 | 220.27.130.179 | 6896 | 1 |
| tcp | | 10.1.30.33 | 57474 | 78.141.179.15 | 12350 | 12 |
| | | 78.141.179.15 | 12350 | 82.138.7.164 | 57474 | 11 |
| udp | | 10.1.30.34 | 6482 | 84.201.228.162 | 44423 | 11 |
| | | 84.201.228.162 | 44423 | 82.138.7.164 | 6482 | 16 |
| tcp | | 10.1.30.34 | 46655 | 96.55.147.21 | 443 | 2 |
| | | 96.55.147.21 | 443 | 82.138.7.164 | 46655 | 0 |
| udp | | 10.1.30.34 | 6482 | 213.199.179.158 | 40006 | 1 |
| | | 213.199.179.158 | 40006 | 82.138.7.164 | 6482 | 1 |

History

| Version | Description |
|---------|---|
| 2.00 | The show ip nat command has been introduced. |

3.148.62 show ip neighbour

Description Show the list of discovered hosts on the network at the OSI model network level.**Prefix no** No**Change settings** No**Multiple input** No

Synopsis`(show)> ip neighbour [alive]`**Arguments**

| Argument | Value | Description |
|----------|---------|--------------------|
| alive | Keyword | Show active hosts. |

Example

```
(show)> ip neighbour

neighbour:
    id: 1
    via: b8:88:e1:2b:30:af
    mac: b8:88:e1:2b:30:af
address-family: ipv4
    address: 192.168.22.16
    interface: Bridge0
    first-seen: 251387
    last-seen: 0
    leasetime: 7372
    expired: no
    wireless: no

neighbour:
    id: 4
    via: b8:88:e2:4b:30:af
    mac: b8:88:e2:4b:30:af
address-family: ipv6

addresses:
    address:
        address: fe80::a022:a505:fae6:c891
        status: active
        last-seen: 3

    interface: Bridge0
    first-seen: 251371
    last-seen: 251371
    leasetime: 0
    expired: no
    wireless: no
```

History

| Version | Description |
|---------|---|
| 2.10 | The show ip neighbour command has been introduced. |

3.148.63 show ip policy

Description Show the IP Policy profile status.**Prefix no** No**Change settings** No

Multiple input No

Synopsis (show)> **ip policy** [*<policy>*]

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| policy | <i>Policy</i> | Name of IP Policy profile. |

Example

```
(show)> ip policy
policy, name = Policy0, description = VPN-OpenVPN:
    mark: fffffd00
    table: 42

    route:
    destination: 10.1.30.0/24
    gateway: 0.0.0.0
    interface: Guest
    metric: 0
    proto: boot
    floating: no

    route:
    destination: 172.16.3.33/32
    gateway: 0.0.0.0
    interface: L2TPVPN
    metric: 0
    proto: boot
    floating: no

    route:
    destination: 192.168.1.0/24
    gateway: 0.0.0.0
    interface: Home
    metric: 0
    proto: boot
    floating: no

policy, name = Policy3, description = Home:
    mark: fffffd03
    table: 45

    route:
    destination: 10.1.30.0/24
    gateway: 0.0.0.0
    interface: Guest
    metric: 0
    proto: boot
    floating: no

    route:
    destination: 172.16.3.33/32
    gateway: 0.0.0.0
```

```
interface: L2TPVPN
  metric: 0
  proto: boot
  floating: no

route:
destination: 192.168.1.0/24
  gateway: 0.0.0.0
interface: Home
  metric: 0
  proto: boot
  floating: no
```

```
(show)> ip policy Policy0
policy, name = Policy0:
  mark: fffffd00
  table: 42

  route:
destination: 0.0.0.0/0
  gateway: 193.0.174.1
interface: ISP
  metric: 0
  proto: boot
  floating: no

  route:
destination: 10.1.30.0/24
  gateway: 0.0.0.0
interface: Guest
  metric: 0
  proto: boot
  floating: no

  route:
destination: 185.230.127.84/32
  gateway: 193.0.174.1
interface: ISP
  metric: 0
  proto: boot
  floating: no

  route:
destination: 192.168.1.0/24
  gateway: 0.0.0.0
interface: Home
  metric: 0
  proto: boot
  floating: no

  route:
destination: 193.0.174.0/24
  gateway: 0.0.0.0
interface: ISP
```

```

metric: 0
  proto: boot
floating: no

route:
destination: 193.0.175.0/25
  gateway: 193.0.174.10
interface: ISP
  metric: 0
  proto: boot
floating: no

route:
destination: 193.0.175.22/32
  gateway: 193.0.174.1
interface: ISP
  metric: 0
  proto: boot
floating: no

```

History

| Version | Description |
|---------|--|
| 2.12 | The show ip policy command has been introduced. |

3.148.64 show ip route

Description Show the current routing table.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> ip route [table <table>] [sort <criteria> <direction>]`

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| table | <i>Integer</i> | The route number. |
| criteria | interface | Sorting criteria is the interface name. |
| | gateway | Sorting criteria is the gateway address. |
| | destination | Sorting criteria is the destination address. |
| direction | ascending | Routing table records are sorted in ascending order. |
| | descending | Routing table records are sorted in descending order. |

Example

```
(show)> ip route table 254
```


| Destination F Metric | Gateway | Interface | ▶ |
|--------------------------|---------------|--------------------------|---|
| 0.0.0.0/0 U 0 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |
| 1.1.1.1/32 U 0 | 0.0.0.0 | Wireguard1 | ▶ |
| 8.8.8.8/32 U 0 | 0.0.0.0 | Wireguard7 | ▶ |
| 10.1.30.0/24 U 0 | 0.0.0.0 | Guest | ▶ |
| 10.8.0.0/24 U 0 | 0.0.0.0 | Wireguard3 | ▶ |
| 13.32.99.0/24 U 0 | 0.0.0.0 | Wireguard7 | ▶ |
| 82.3.116.12/32 U 0 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |
| 108.157.4.0/24 U 0 | 0.0.0.0 | Wireguard7 | ▶ |
| 162.159.192.1/32 U 0 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |
| 172.16.85.0/24 U 0 | 0.0.0.0 | Wireguard1 | ▶ |
| 176.124.212.86/32 U 0 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |
| 188.114.96.0/22 U 0 | 0.0.0.0 | Wireguard7 | ▶ |
| 192.168.1.0/24 U 0 | 192.168.15.88 | Home | ▶ |
| 192.168.15.0/24 U 0 | 0.0.0.0 | Home | ▶ |
| 192.168.17.0/24 U 0 | 0.0.0.0 | Bridge2 | ▶ |
| 192.168.133.0/24 U 0 | 0.0.0.0 | WifiMaster1/WifiStation0 | ▶ |
| 192.168.220.0/24 U 0 | 0.0.0.0 | Wireguard1 | ▶ |
| 194.71.130.15/32 U 0 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |

(show)> **ip route sort interface ascending**

| Destination F Metric | Gateway | Interface | ▶ |
|-------------------------|---------------|--------------------------|---|
| 192.168.1.0/24 U 0 | 192.168.15.88 | Home | ▶ |
| 192.168.15.0/24 U 0 | 0.0.0.0 | Home | ▶ |
| 10.1.30.0/24 U 0 | 0.0.0.0 | Guest | ▶ |
| 192.168.17.0/24 U 0 | 0.0.0.0 | Bridge2 | ▶ |
| 0.0.0.0/0 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |

```

      U 0
84.2.111.11/32    192.168.133.1    WifiMaster1/WifiStation0 ▶
      U 0
162.159.192.1/32  192.168.133.1    WifiMaster1/WifiStation0 ▶
      U 0
176.124.212.86/32 192.168.133.1    WifiMaster1/WifiStation0 ▶
      U 0
192.168.133.0/24  0.0.0.0          WifiMaster1/WifiStation0 ▶
      U 0
194.71.130.15/32  192.168.133.1    WifiMaster1/WifiStation0 ▶
      U 0
1.1.1.1/32        0.0.0.0          Wireguard1           ▶
      U 0
172.16.85.0/24    0.0.0.0          Wireguard1           ▶
      U 0
192.168.220.0/24  0.0.0.0          Wireguard1           ▶
      U 0
10.8.0.0/24       0.0.0.0          Wireguard3           ▶
      U 0
8.8.8.8/32        0.0.0.0          Wireguard7           ▶
      U 0
13.32.99.0/24     0.0.0.0          Wireguard7           ▶
      U 0
108.157.4.0/24    0.0.0.0          Wireguard7           ▶
      U 0
188.114.96.0/22   0.0.0.0          Wireguard7           ▶
      U 0

```

```
(show)> ip route sort interface descending
```

| Destination | Gateway | Interface | |
|-------------------|---------------|--------------------------|---|
| F Metric | | | ▶ |
| 188.114.96.0/22 | 0.0.0.0 | Wireguard7 | ▶ |
| U 0 | | | |
| 108.157.4.0/24 | 0.0.0.0 | Wireguard7 | ▶ |
| U 0 | | | |
| 13.32.99.0/24 | 0.0.0.0 | Wireguard7 | ▶ |
| U 0 | | | |
| 8.8.8.8/32 | 0.0.0.0 | Wireguard7 | ▶ |
| U 0 | | | |
| 10.8.0.0/24 | 0.0.0.0 | Wireguard3 | ▶ |
| U 0 | | | |
| 192.168.220.0/24 | 0.0.0.0 | Wireguard1 | ▶ |
| U 0 | | | |
| 172.16.85.0/24 | 0.0.0.0 | Wireguard1 | ▶ |
| U 0 | | | |
| 1.1.1.1/32 | 0.0.0.0 | Wireguard1 | ▶ |
| U 0 | | | |
| 194.71.130.15/32 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |
| U 0 | | | |
| 192.168.133.0/24 | 0.0.0.0 | WifiMaster1/WifiStation0 | ▶ |
| U 0 | | | |
| 176.124.212.86/32 | 192.168.133.1 | WifiMaster1/WifiStation0 | ▶ |

```

    U 0
162.159.192.1/32    192.168.133.1    WifiMaster1/WifiStation0 ▶
    U 0
85.1.112.11/32    192.168.133.1    WifiMaster1/WifiStation0 ▶
    U 0
0.0.0.0/0         192.168.133.1    WifiMaster1/WifiStation0 ▶
    U 0
192.168.17.0/24   0.0.0.0          Bridge2            ▶
    U 0
10.1.30.0/24     0.0.0.0          Guest              ▶
    U 0
192.168.15.0/24   0.0.0.0          Home               ▶
    U 0
192.168.1.0/24    192.168.15.88    Home              ▶
    U 0

```

History

| Version | Description |
|---------|---|
| 2.00 | The show ip route command has been introduced. |

3.148.65 show ip service

Description Show a list of open ports used by system services.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip service**

Example (show)> **ip service**

```

service:
service-name: Telnet
  family: ipv4
  protocol: tcp
  port: 23
security-level: private

service:
service-name: DNS proxy
  family: ipv4
  protocol: udp
  port: 53
security-level: protected

service:
service-name: DNS proxy
  family: ipv4

```

```

    protocol: tcp
      port: 53
  security-level: protected

  service:
    service-name: DNS proxy
      family: ipv4
      protocol: udp
      port: 54321
    security-level: private

```

History

| Version | Description |
|---------|---|
| 3.06 | The show ip service command has been introduced. |

3.148.66 show ipsec

Description Show info about *IPsec/IKE* strongSwan service status.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ipsec**

Example (show)> **ipsec**

```

ipsec_statusall:

Status of IKE charon daemon (strongSwan 5.3.4, Linux 2.6.36, ▶
mips):
  uptime: 6 days, since Dec 22 10:23:36 2015
  worker threads: 11 of 16 idle, 5/0/0/0 working, job queue: ▶
0/0/0/0, scheduled: 10
  loaded plugins: charon aes des sha1 sha2 md5 random nonce ▶
openssl xcbc cmac hmac attr kernel-netlink socket-default stroke ▶
updown eap-mschapv2 eap-dynamic xauth-generic xauth-eap ▶
error-notify systime-fix
Listening IP addresses:
  192.168.1.1
  10.10.10.15
Connections:
  test: %any...ipsec.example.org IKEv2, dpddelay=10s
  test: local: [ipsec.example.org] uses pre-shared key ▶
authentication
  test: remote: [ipsec.example.com] uses pre-shared key ▶
authentication
  test: child: 172.16.200.0/24 === 172.16.201.0/24 TUNNEL, ▶
dpdaction=restart

```

```

Security Associations (1 up, 0 connecting):
  test[572]: ESTABLISHED 24 minutes ago, ►
10.10.10.15[ipsec.example.org]...10.10.10.20[ipsec.example.com]
  test[572]: IKEv2 SPIs: 00a6ebfc9d90f1c2_i* ►
3cd201ef496df75c_r, pre-shared key reauthentication in 20 minutes
  test[572]: IKE proposal: ►
AES_CBC=256/HMAC_SHA1_96/PRF_HMAC_SHA1/MODP_1024/#
  test{304}: INSTALLED, TUNNEL, reqid 185, ESP in UDP SPIs: ►
ca59bfcf_i cde23d83_o
  test{304}: AES_CBC_256/HMAC_SHA1_96, 10055 bytes_i (164 ►
pkts, 0s ago), 10786 bytes_o (139 pkts, 0s ago), rekeying in 34 ►
minutes
  test{304}: 172.16.200.0/24 === 172.16.201.0/24

```

History

| Version | Description |
|---------|--|
| 2.06 | The show ipsec command has been introduced. |

3.148.67 show ipv6 addresses

Description Show a list of current IPv6-addresses.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ipv6 addresses**

Example (show)> **ipv6 addresses**

```

address:
  address: 2001:db8::1
  interface: ISP
valid-lifetime: infinite
address:
  address: 2001:db8::ce5d:4eff:fe4f:aab2
  interface: Home
valid-lifetime: infinite
address:
  address: fd3c:4268:1559:0:ce5d:4eff:fe4f:aab2
  interface: Home
valid-lifetime: infinite
address:
  address: fd01:db8:43:0:ce5d:4eff:fe4f:aab2
  interface: Home
valid-lifetime: infinite

```

History

| Version | Description |
|---------|---|
| 2.00 | The show ipv6 addresses command has been introduced. |

3.148.68 show ipv6 dhcp bindings

Description Show *DHCPv6 server* status.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ipv6 dhcp bindings**

Example

```
(show)> ipv6 dhcp bindings
 subnet:
   name: Default

 subnet:
   name: guest

 lease:
   type: IA-NA
   duid: 00:03:00:01:a8:a1:59:61:57:69
   address: fc34:5678:0:4::cc
   expires: 299

 lease:
   type: IA-PD
   duid: 00:03:00:01:a8:a1:59:61:57:69
   prefix: fc34:5678:0:7::/64
   remote: fe80::2ecb:ff38:a778:66e8
   expires: 299
```

History

| Version | Description |
|---------|---|
| 4.00 | The show ipv6 dhcp bindings command has been introduced. |

3.148.69 show ipv6 prefixes

Description Show a list of current IPv6-prefixes.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> ipv6 prefixes
```

Example

```
(show)> ipv6 prefixes

  prefix:
    prefix: 2001:db8::/64
    interface: ISP
  valid-lifetime: infinite
  preferred-lifetime: infinite
  prefix:
    prefix: fd3c:4268:1559::/48
    interface:
  valid-lifetime: infinite
  preferred-lifetime: infinite
  prefix:
    prefix: fd01:db8:43::/48
    interface:
  valid-lifetime: infinite
  preferred-lifetime: infinite
```

History

| Version | Description |
|---------|--|
| 2.00 | The show ipv6 prefixes command has been introduced. |

3.148.70 show ipv6 route

Description

Show a list of current IPv6-routes.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> ipv6 route [table <table> ] [sort <criteria> <direction> ]
```

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| table | <i>Integer</i> | The route number. |
| criteria | interface | Sorting criteria is the interface name. |
| | gateway | Sorting criteria is the gateway address. |
| | destination | Sorting criteria is the destination address. |
| direction | ascending | Routing table records are sorted in ascending order. |
| | descending | Routing table records are sorted in descending order. |

Example

```
(show)> ipv6 route table 42
```

```

route6:
destination: 2a02:290:2:65d:52ff:20ff:fe00:1e86/128
gateway: ::
interface: Home
metric: 256
flags: U
rejecting: no
proto: boot
floating: no
static: no

```

```
(show)> ipv6 route sort interface ascending
```

```

route6:
destination: 2a02:290:2:65d:52ff:20ff:fe00:1e86/128
gateway: ::
interface: Home
metric: 256
flags: U
rejecting: no
proto: kernel
floating: no
static: no

```

```
(show)> ipv6 route sort gateway descending
```

```

route6:
destination: ::/0
gateway: fe80::66a0:e7ff:fef5:6392
interface: ISP
metric: 1024
flags: U
rejecting: no
proto: boot
floating: no
static: no

```

History

| Version | Description |
|---------|--|
| 2.00 | The show ipv6 routes command has been introduced. |
| 4.00 | New command name is show ipv6 route . |

3.148.71 show ipv6 subnets

| | |
|------------------------|--------------------------------------|
| Description | Show a list of current IPv6-subnets. |
| Prefix no | No |
| Change settings | No |

Multiple input No

Synopsis (show)> **ipv6 subnets**

Example (show)> **ipv6 subnets**

```

subnet:
  name: Default
  interface: Home

  prefixes:
    prefix: 2a0d:8140:2ba1::/64
    interface: TunnelSixInFour0
    valid-lifetime: infinite
  preferred-lifetime: 0
  global: no

```

History

| Version | Description |
|---------|---|
| 4.01 | The show ipv6 subnets command has been introduced. |

3.148.72 show kabinet status

Description Check for the status and configuration of KAbiNET authenticator.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **kabinet status**

Example (show)> **kabinet status**

```

kabinet:
  enabled: yes
  wan: yes
  state: STOPPED
  server: 10.0.0.1
  access-level: internet
  protocol-version: 2

```

History

| Version | Description |
|---------|---|
| 2.02 | The show kabinet status command has been introduced. |

3.148.73 show last-change

Description Show when and who made the latest changes in the settings.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **last-change**

Example (show)> **last-change**

```
date: Thu, 12 Jul 2012 10:01:47 GMT
```

```
agent: cli
```

History

| Version | Description |
|---------|--|
| 2.00 | The show last-change command has been introduced. |

3.148.74 show led

Description Show information about specified LED in the system. If you use no argument, the entire list of all LEDs on the device will be displayed. Available LEDs depend on hardware configuration.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **led** [<name>]

Arguments

| Argument | Value | Description |
|----------|---------|--|
| name | SYS | The LED name. The number of available indicators depends on the selected device. |
| | FN | |
| | FW_UPD | |
| | ACT_ACK | |
| | WAN | |
| | DSL | |
| | WLAN | |
| | WLAN5 | |
| | WPS_1 | |

| Argument | Value | Description |
|----------|--------|-------------|
| | WPS_2 | |
| | WPS_3 | |
| | WPS_4 | |
| | WPS5_1 | |
| | WPS5_2 | |
| | WPS5_3 | |
| | WPS5_4 | |
| | USB_1 | |
| | USB_2 | |
| | LTE | |

Example

```
(show)> led FN_1

      leds:
        led, index = 0:
          name: FN_1
        user_configurable: yes
        virtual: no
```

History

| Version | Description |
|---------|--|
| 2.05 | The show led command has been introduced. |

3.148.75 show led bindings

Description Show the control associated with the specified LED. If you use no argument, the entire list of all LEDs with their controls will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> led [<name>]bindings`

Arguments

| Argument | Value | Description |
|----------|---------|---|
| name | SYS | The LED name. Set of available indicators depends on the selected device. |
| | FN | |
| | FW_UPD | |
| | ACT_ACK | |
| | WAN | |

| Argument | Value | Description |
|----------|--------|-------------|
| | DSL | |
| | WLAN | |
| | WLAN5 | |
| | WPS_1 | |
| | WPS_2 | |
| | WPS_3 | |
| | WPS_4 | |
| | WPS5_1 | |
| | WPS5_2 | |
| | WPS5_3 | |
| | WPS5_4 | |
| | USB_1 | |
| | USB_2 | |
| | LTE | |

Example

```
(show)> led bindings

bindings:

binding, index = 0:
  led: SYS
user_configurable: no
active_control: SystemState
default_control: SystemState

binding, index = 1:
  led: FN_1
user_configurable: yes
active_control: Usb1PortDeviceAttached
default_control: Usb1PortDeviceAttached

binding, index = 2:
  led: FN_2
user_configurable: yes
active_control: Usb2PortDeviceAttached
default_control: Usb2PortDeviceAttached

binding, index = 3:
  led: ACT_ACK
user_configurable: no
active_control: ButtonActivityAcknowledgement
default_control: ButtonActivityAcknowledgement

binding, index = 4:
  led: FW_UPD
```

```
user_configurable: no
  active_control:
  default_control:

  binding, index = 5:
    led: WAN
user_configurable: no
  active_control: WanConnected
  default_control: WanConnected

  binding, index = 6:
    led: WLAN
user_configurable: no
  active_control: WlanActivity
  default_control: WlanActivity

  binding, index = 7:
    led: WPS_1
user_configurable: no
  active_control: WlanWps1Activity
  default_control: WlanWps1Activity

  binding, index = 8:
    led: WPS_2
user_configurable: no
  active_control: WlanWps2Activity
  default_control: WlanWps2Activity

  binding, index = 9:
    led: WPS_3
user_configurable: no
  active_control: WlanWps3Activity
  default_control: WlanWps3Activity

  binding, index = 10:
    led: WPS_4
user_configurable: no
  active_control: WlanWps4Activity
  default_control: WlanWps4Activity

  binding, index = 11:
    led: WPS_STA
user_configurable: no
  active_control: WstaWpsActivity
  default_control: WstaWpsActivity

  binding, index = 12:
    led: WLAN5
user_configurable: no
  active_control: Wlan5Activity
  default_control: Wlan5Activity

  binding, index = 13:
    led: WPS5_1
```

```

user_configurable: no
  active_control: Wlan5Wps1Activity
  default_control: Wlan5Wps1Activity

  binding, index = 14:
    led: WPS5_2
user_configurable: no
  active_control: Wlan5Wps2Activity
  default_control: Wlan5Wps2Activity

  binding, index = 15:
    led: WPS5_3
user_configurable: no
  active_control: Wlan5Wps3Activity
  default_control: Wlan5Wps3Activity

  binding, index = 16:
    led: WPS5_4
user_configurable: no
  active_control: Wlan5Wps4Activity
  default_control: Wlan5Wps4Activity

  binding, index = 17:
    led: WPS5_STA
user_configurable: no
  active_control: Wsta5WpsActivity
  default_control: Wsta5WpsActivity

```

History

| Version | Description |
|---------|---|
| 2.08 | The show led bindings command has been introduced. |

3.148.76 show led controls

Description Show a list of LED controls in the system. Available controls depend on hardware configuration.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **led controls**

Example (show)> **led controls**

```

controls:
  control, index = 0:
    name: SystemState
  short_description: System state

```

```

        owner: ndm
user_configurable: no

        control, index = 1:
            name: ButtonActivityAcknowledgement
short_description: Button activity acknowledgement
            owner: ndm
user_configurable: no

        control, index = 2:
            name: SelectedSchedule
short_description: Selected schedule is active
            owner: ndm
user_configurable: yes

        control, index = 3:
            name: SelectedWan
short_description: Selected WAN interface has default route ►
route
            owner: ndm
user_configurable: yes

        control, index = 4:
            name: BackupWan
short_description: Backup WAN interface has default route
            owner: ndm
user_configurable: yes

        control, index = 5:
            name: WanConnected
short_description: WAN interface connected
            owner: ndm
user_configurable: no

        control, index = 6:
            name: Usb1PortDeviceAttached
short_description: USB port 1 known device attached
            owner: ndm
user_configurable: yes

        control, index = 7:
            name: Usb2PortDeviceAttached
short_description: USB port 2 known device attached
            owner: ndm
user_configurable: yes

        control, index = 8:
            name: UpdatesAvailable
short_description: Firmware updates available
            owner: ndm
user_configurable: yes

        control, index = 9:
            name: OpkgLedControl

```

```
short_description: OPKG LED control
  owner: ndm
user_configurable: yes

  control, index = 10:
    name: Wlan5Activity
short_description: WLAN 5GHz interface activity
  owner: mt7615_ap
user_configurable: no

  control, index = 11:
    name: Wlan5Wps1Activity
short_description: WLAN 5GHz SSID 1 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 12:
    name: Wlan5Wps2Activity
short_description: WLAN 5GHz SSID 2 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 13:
    name: Wlan5Wps3Activity
short_description: WLAN 5GHz SSID 3 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 14:
    name: Wlan5Wps4Activity
short_description: WLAN 5GHz SSID 4 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 15:
    name: WlanActivity
short_description: WLAN 2.4GHz interface activity
  owner: mt7615_ap
user_configurable: no

  control, index = 16:
    name: WlanWps1Activity
short_description: WLAN 2.4GHz SSID 1 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 17:
    name: WlanWps2Activity
short_description: WLAN 2.4GHz SSID 2 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 18:
    name: WlanWps3Activity
```



```

short_description: WLAN 2.4GHz SSID 3 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 19:
    name: WlanWps4Activity
short_description: WLAN 2.4GHz SSID 4 WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 20:
    name: Wsta5WpsActivity
short_description: Station 5GHz WPS activity
  owner: mt7615_ap
user_configurable: no

  control, index = 21:
    name: WstaWpsActivity
short_description: Station 2.4GHz WPS activity
  owner: mt7615_ap
user_configurable: no

```

History

| Version | Description |
|---------|---|
| 2.08 | The show led controls command has been introduced. |

3.148.77 show log

Description Show system log contents (records that are present in a circular buffer). The command executes in the background, that is, until forced to stop by the user pressing [Ctrl]+[C].

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> log [<max-lines>] [once]`

Arguments

| Argument | Value | Description |
|-----------|----------------|---------------------------------------|
| max-lines | <i>Integer</i> | Limit for returned log items. |
| once | <i>Keyword</i> | Show current log and exit to the CLI. |

Example

```

(show)> log

```

| Time | Message |
|---------------------|--|
| I [Jul 12 12:08:39] | radvd[228]: attempting to reread config file |

```

I [Jul 12 12:08:39] radvd[228]: resuming normal operation
I [Jul 12 12:08:40] wmond: WifiMaster0/AccessPoint0: ►
STA(d8:b3:77:36:05:c1)
    occurred MIC different in key handshaking.
I [Jul 12 12:08:40] radvd[228]: attempting to reread config file
I [Jul 12 12:08:40] radvd[228]: resuming normal operation
I [Jul 12 12:08:41] wmond: WifiMaster0/AccessPoint0: ►
STA(d8:b3:77:36:05:c1)
    occurred MIC different in key handshaking.
I [Jul 12 12:08:41] radvd[228]: attempting to reread config file
I [Jul 12 12:08:41] radvd[228]: resuming normal operation
I [Jul 12 12:08:44] wmond: WifiMaster0/AccessPoint0: ►
STA(d8:b3:77:36:05:c1)
    pairwise key handshaking timeout.
I [Jul 12 12:08:44] wmond: WifiMaster0/AccessPoint0: ►
STA(d8:b3:77:36:05:c1) had
    deauthenticated.

```

History

| Version | Description |
|---------|--|
| 2.00 | The show log command has been introduced. |

3.148.78 show media

Description Show info about system USB-drives and their partitions.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **media**

Example (show)> **media**

```

media:
  name: Media0
  port: 1
  state: ACTIVE
manufacturer: Western Digital
product: My Passport 074A
serial: 575832314139324D36383139
size: 1000202043392

partition:
  uuid: 01D55E919F06F5C0
  label: MyPassport
  fstype: ntfs
  state: MOUNTED
  total: 982291312640

```

```

        free: 285839884288

    partition:
        uuid: dd5e899f-915e-d501-101e-899f915ed501
        label: fls_wd_ext4
        fstype: ext4
        state: MOUNTED
        total: 15756732416
        free: 15741890560

    partition:
        uuid: 00000000-0000-0000-0000-000000000000
        label:
        fstype: swap
        state: MOUNTED
        total: 1081077760
        free: 1081077760

```

History

| Version | Description |
|---------|--|
| 3.04 | The show media command has been introduced. |

3.148.79 show mws associations

Description Show the list of Access Points on the repeater(s) associated with *MWS* controller.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> mws associations`

Example `(show)> mws associations`

```

    station:
        mac: 51:ef:22:11:17:1a
        ap: WifiMaster1/Backhaul0
    authenticated: yes
        txrate: 585
        rxrate: 270
        uptime: 31
        txbytes: 33569
        rxbytes: 74324
        ht: 80
        mode: 11ac
        gi: 800
        rssi: -27
        mcs: 7

```

```
txss: 2
ebf: yes
mu: yes
```

History

| Version | Description |
|---------|---|
| 3.01 | The show mws associations command has been introduced. |

3.148.80 show mws candidate

Description Show the list of candidates or the description of specified candidate by the given identifier.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> mws candidate [<candidate>]`

Arguments

| Argument | Value | Description |
|-----------|---------------|---------------------------------|
| candidate | <i>String</i> | Device ID — MAC address or CID. |

Example

```
(show)> mws candidate 50:ff:20:08:71:61
```

```
candidate:
  mac: 50:ff:20:08:71:61
  cid:
  mode:
  model:
  state: DISCONNECTED
```

```
(show)> mws candidate 50:ff:20:08:71:61
```

```
candidate:
  mac: 50:ff:20:08:71:61
  cid: ab1409a2-0f87-11e8-8f23-3d5f5921b253
  mode: ap
  model: Extra (KN-1710)
  state: COMPATIBLE
  fw: 2.15.A.4.0-1
fw-available: 2.15.A.4.0-1
license: 273720056272398
```

History

| Version | Description |
|---------|--|
| 2.15 | The show mws candidate command has been introduced. |

3.148.81 show mws log

Description Show log of connections and transitions from one Access Point to another within *MWS*. The command executes in the background, that is, until forced to stop by the user pressing [Ctrl]+[C].

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> mws log [<max-lines>] [once]`

Arguments

| Argument | Value | Description |
|-----------|----------------|-----------------------------------|
| max-lines | <i>Integer</i> | Limit of entries in the response. |
| once | <i>Keyword</i> | Show recent entries in the log. |

Example

```
(show)> mws log 1
```

| Time | Message |
|-------------------|---|
| [Jan 17 15:04:58] | : 64:a2:f9:51:b1:82: associated -> ▶ 50:ff:20:00:11:82 (5 GHz) |

```
(show)> mws log once
```

| Time | Message |
|-------------------|---|
| [Jan 17 14:46:37] | : 64:a2:f9:51:b1:82: associated -> ▶ 50:ff:20:00:11:82 (5 GHz) |
| [Jan 17 15:04:50] | : 64:a2:f9:51:b1:82: 50:ff:20:00:11:82 (5 GHz) -> disassociated |
| [Jan 17 15:04:58] | : 64:a2:f9:51:b1:82: associated -> ▶ 50:ff:20:00:11:82 (5 GHz) |

History

| Version | Description |
|---------|--|
| 2.15 | The show mws log command has been introduced. |

3.148.82 show mws member

Description Show the list of members or the description of specified member by the given identifier.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **mws member** [<member>]

Arguments

| Argument | Value | Description |
|----------|--------|---------------------------------|
| member | String | Device ID — MAC address or CID. |

Example

```
(show)> mws member 40f829b8-71a8-11ec-9396-5fb681ed4743

    member:
        cid: 40f829b8-71a8-11ec-9396-5fb681ed4743
        model: Speedster (KN-3310)
        mac: 50:ff:21:69:21:7d
        known-host: Keenetic Hopper 116***591
        ip: 192.168.15.42
        mode: extender
        hw-type: router
        license: 116232491843591
        fqdn: 1fb1227d6b44e5863f46cb5a.keenetic.io
    fqdn-certificate-valid: yes
        fw: 3.8 Beta 2
    fw-available: 3.8.2
        region: EU
    associations: 0
        rebooting: yes

    capabilities:
        mode-hw: no
        dual-band: yes
    auto-ap-shutdown: yes
        wpa3: yes
        owe: yes
        wind: yes
        wpa-eap: no
        acme: yes
        auth-token: yes
        backhaul-bss: yes
        sta-mask: yes
        country-code: yes
        notify: yes

        system:
            cplload: 2
            memory: 97592/262144
            uptime: 567

        backhaul:
            uplink: GigabitEthernet0/Vlan1
            bridge: 8000.50:ff:21:69:21:7d
            cost: 5
            speed: 1000
```

```
duplex: full
```

```
rci:
errors: 0
```

History

| Version | Description |
|---------|---|
| 2.15 | The show mws member command has been introduced. |

3.148.83 show ndns

Description Show KeenDNS parameters from the latest request to the server (see [ndns get-booked](#) and [ndns get-update](#) commands).

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ndns**

Example

```
(show)> ndns

    name: testname
    booked: testname
    domain: mykeenetic.com
    address: 41.189.34.56
    updated: yes
    access: direct

    ttp:
    direct: yes
    interface: GigabitEthernet1
    address: 41.189.34.56
```

History

| Version | Description |
|---------|---|
| 2.07 | The show ndns command has been introduced. |

3.148.84 show netfilter

Description Show information about the firewall working. Need to provide remote technical support.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> netfilter
```

History

| Version | Description |
|---------|--|
| 2.00 | The show netfilter command has been introduced. |

3.148.85 show nextdns availability

Description Check and show *NextDNS* availability.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> nextdns availability
```

Example

```
(show)> nextdns availability
    available: yes
           port: 53
    doh-supported: yes
    doh-available: yes
```

History

| Version | Description |
|---------|---|
| 3.08 | The show nextdns availability command has been introduced. |

3.148.86 show nextdns profiles

Description Show *NextDNS* profiles.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> nextdns profiles
```

Example

```
(show)> nextdns profiles
    profiles:
      profile:
        name: No filtering
        token: 0
```



```

profile:
  name: My First Configuration
  token: 1f3a36
NextDns::Client: Loaded profiles.

```

History

| Version | Description |
|---------|---|
| 3.08 | The show nextdns profiles command has been introduced. |

3.148.87 show ntce applications

Description Show the list of applications supported by the [NTCE](#) service.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ntce applications**

Example (show)> **ntce applications**

```

application:
  id-num: 1
  short: facebook
  long: Facebook
  group-id: 2065
  group-long: Social
  groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

application:
  id-num: 2
  short: magicjack
  long: magicJack
  group-id: 2054
  group-long: Voice over IP
  groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

application:
  id-num: 3
  short: itunes
  long: iTunes
  group-id: 2056
  group-long: Streaming

```

```
    groupset-id: 2
groupset-short-id: streaming
groupset-long-id: Video & Audio streaming

application:
    id-num: 4
    short: myspace
    long: MySpace
    group-id: 2065
    group-long: Social
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

application:
    id-num: 5
    short: facetime
    long: FaceTime
    group-id: 2054
    group-long: Voice over IP
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

application:
    id-num: 6
    short: truphone
    long: Truphone
    group-id: 2054
    group-long: Voice over IP
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

application:
    id-num: 7
    short: twitter
    long: Twitter
    group-id: 2065
    group-long: Social
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

application:
    id-num: 8
    short: xbox
    long: XBOX gaming console
    group-id: 2050
    group-long: Gaming
    groupset-id: 1
groupset-short-id: gaming
groupset-long-id: Gaming
```

```

application:
  id-num: 9
  short: realmedia
  long: RealMedia
  group-id: 2088
  group-long: Removed
  groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

application:
  id-num: 10
  short: google-mail
  long: Google Mail
  group-id: 2059
  group-long: Mail
  groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

```

History

| Version | Description |
|---------|--|
| 3.07 | The show ntce applications command has been introduced. |

3.148.88 show ntce attributes

Description Show the list of attributes supported by the [NTCE](#) service.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ntce attributes**

Example (show)> **ntce attributes**

```

attribute:
  id-num: 1
  short: encrypted
  long: Indicates that the current connection is ►
encrypted traffic.

attribute:
  id-num: 2
  short: audio
  long: Indicates that the current connection is ►
an audio or voice signal.

```

```
attribute:
  id-num: 3
  short: out
  long: Indicates that the current connection is ▶
a landline call, e.g. a call to a home phone.

attribute:
  id-num: 4
  short: video
  long: Indicates that the current connection is ▶
a video signal.

attribute:
  id-num: 5
  short: file-transfer
  long: Indicates that the current connection is ▶
a file transfer.

attribute:
  id-num: 6
  short: web
  long: Indicates that the current connection is ▶
a surf the Internet session.

attribute:
  id-num: 7
  short: chat
  long: Indicates that the current connection is ▶
a chat session.

attribute:
  id-num: 8
  short: mail
  long: Indicates that the current connection is ▶
mail traffic.

attribute:
  id-num: 9
  short: stream
  long: Indicates that the current connection is ▶
a continues unidirectional stream of audio and / or video.

attribute:
  id-num: 10
  short: android
  long: Indicates that the client side uses the ▶
operating system Android.

attribute:
  id-num: 11
  short: ios
  long: Indicates that the client side uses the ▶
operating system iOS.
```

```
attribute:
  id-num: 12
  short: windows-mobile
  long: Indicates that the client side uses the ▶
operating system Windows Mobile.

attribute:
  id-num: 13
  short: blackberry
  long: Indicates that the client side uses the ▶
operating system Blackberry.

attribute:
  id-num: 14
  short: picture
  long: Indicates that the current connection ▶
transfers pictures.

attribute:
  id-num: 15
  short: ddl
  long: Indicates that the current connection is ▶
a Direct Download Host.

attribute:
  id-num: 16
  short: google
  long: Indicates that the current connection is ▶
a Google service.

attribute:
  id-num: 17
  short: outlook_web_access
  long: Indicates that the current connection ▶
uses the Microsoft Exchange Outlook Web Access as authentication ▶
mechanism.

attribute:
  id-num: 18
  short: amazon-cloud
  long: Indicates that the current connection is ▶
a service of Amazon Cloud.

attribute:
  id-num: 19
  short: apache
  long: Indicates that the server side is an ▶
Apache server.

attribute:
  id-num: 20
  short: mysql-server
  long: Indicates that the server side is a MySQL ▶
database server.
```

```

    attribute:
      id-num: 21
      short: mariadb-server
      long: Indicates that the server side is a ▶
MariaDB database server.

    attribute:
      id-num: 22
      short: ntlm
      long: Current connection uses NTLM as ▶
authentication mechanism.

    attribute:
      id-num: 23
      short: microsoft-windows
      long: Indicates that the client side is the ▶
operating system Microsoft Windows.

    attribute:
      id-num: 24
      short: chrome
      long: Indicates that the client side is the ▶
operating system Chrome.

    attribute:
      id-num: 25
      short: akamai-cloud
      long: Indicates that the current connection is ▶
a service of Akamai Cloud.

    attribute:
      id-num: 26
      short: dox
      long: Indicates that the current connection is ▶
DoT (DNS over TLS) or DoH (DNS over HTTPS).

    attribute:
      id-num: 27
      short: rcs
      long: Indicates that the current connection is ▶
RCS (Rich Communication Services).

```

History

| Version | Description |
|---------|--|
| 3.07 | The show ntce attributes command has been introduced. |

3.148.89 show ntce groups**Description**

Show the list of groups supported by the *NTCE* service.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> ntce groups`

Example `(show)> ntce groups`

```

    group:
      id-num: 2048
      long: Generic
    groupset-id: 5
  groupset-short-id: other
  groupset-long-id: Other

    group:
      id-num: 2049
      long: Peer to Peer
    groupset-id: 6
  groupset-short-id: filetransferring
  groupset-long-id: File transferring

    group:
      id-num: 2050
      long: Gaming
    groupset-id: 1
  groupset-short-id: gaming
  groupset-long-id: Gaming

    group:
      id-num: 2051
      long: Tunnel
    groupset-id: 3
  groupset-short-id: work
  groupset-long-id: Work & Learn from home

    group:
      id-num: 2052
      long: Business
    groupset-id: 3
  groupset-short-id: work
  groupset-long-id: Work & Learn from home

    group:
      id-num: 2053
      long: E-Commerce
    groupset-id: 3
  groupset-short-id: work
  groupset-long-id: Work & Learn from home

    group:

```

```
        id-num: 2054
        long: Voice over IP
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

    group:
        id-num: 2055
        long: Messaging
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

    group:
        id-num: 2056
        long: Streaming
    groupset-id: 2
groupset-short-id: streaming
groupset-long-id: Video & Audio streaming

    group:
        id-num: 2057
        long: Mobile
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

    group:
        id-num: 2058
        long: Remote Control
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
        id-num: 2059
        long: Mail
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
        id-num: 2060
        long: Network Management
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2061
        long: Database
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home
```



```
group:
  id-num: 2062
  long: Filetransfer
groupset-id: 6
groupset-short-id: filetransferring
groupset-long-id: File transferring

group:
  id-num: 2063
  long: Web
groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

group:
  id-num: 2064
  long: Conference
groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

group:
  id-num: 2065
  long: Social
groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

group:
  id-num: 2066
  long: Sharehosting
groupset-id: 6
groupset-short-id: filetransferring
groupset-long-id: File transferring

group:
  id-num: 2067
  long: Deprecated
groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

group:
  id-num: 2068
  long: Industrial
groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

group:
  id-num: 2069
  long: Encrypted
groupset-id: 5
```

```
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2070
        long: Advertisement and Analytic Services
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2071
        long: News
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

    group:
        id-num: 2072
        long: Health and Fitness
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2073
        long: Cloud and CDN Services
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2074
        long: Navigation
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

    group:
        id-num: 2075
        long: Finance
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2076
        long: Travel and Transportation
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2077
```

```
        long: Pornography
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2078
        long: Books and Magazines
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2079
        long: Audio Entertainment
    groupset-id: 2
groupset-short-id: streaming
groupset-long-id: Video & Audio streaming

    group:
        id-num: 2080
        long: Education
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2081
        long: M2M and IoT
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
        id-num: 2082
        long: Device Security
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

    group:
        id-num: 2083
        long: Multimedia Service Providers
    groupset-id: 2
groupset-short-id: streaming
groupset-long-id: Video & Audio streaming

    group:
        id-num: 2084
        long: Organizers
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home
```

```

    group:
      id-num: 2085
      long: Enterprise Services
    groupset-id: 4
  groupset-short-id: surfing
  groupset-long-id: Web surfing

    group:
      id-num: 2086
      long: App-Stores and OS Updates
    groupset-id: 6
  groupset-short-id: filetransferring
  groupset-long-id: File transferring

    group:
      id-num: 2087
      long: Browsers
    groupset-id: 4
  groupset-short-id: surfing
  groupset-long-id: Web surfing

    group:
      id-num: 2088
      long: Removed
    groupset-id: 5
  groupset-short-id: other
  groupset-long-id: Other

    group:
      id-num: 2089
      long: Moved
    groupset-id: 5
  groupset-short-id: other
  groupset-long-id: Other

```

History

| Version | Description |
|---------|--|
| 3.07 | The show ntce groups command has been introduced. |

3.148.90 show ntce groupsets

Description Show the list of groupsets supported by the *NTCE* service.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **ntce groupsets**

Example

```
(show)> ntce groupsets

groupset:
  id-num: 0
  short: calling
  long: Calling and conferencing

groupset:
  id-num: 1
  short: gaming
  long: Gaming

groupset:
  id-num: 2
  short: streaming
  long: Video & Audio streaming

groupset:
  id-num: 3
  short: work
  long: Work & Learn from home

groupset:
  id-num: 4
  short: surfing
  long: Web surfing

groupset:
  id-num: 5
  short: other
  long: Other

groupset:
  id-num: 6
  short: filetransferring
  long: File transferring
```

History

| Version | Description |
|---------|---|
| 3.07 | The show ntce groupsets command has been introduced. |

3.148.91 show ntce hosts

| | |
|------------------------|--|
| Description | Show application statistics, which <i>NTCE</i> service has detected for hosts. |
| Prefix no | No |
| Change settings | No |
| Multiple input | No |

Synopsis

```
(show)> ntce hosts
```

Example

```
(show)> ntce hosts

    host:
      mac: 04:d4:c4:54:31:12

    application:
      id-num: 7
      short: twitter
      long: Twitter
      group-id: 2065
      group-long: Social
      groupset-id: 4
      groupset-short-id: surfing
      groupset-long-id: Web surfing
    groupset-service-class: 2
      rxbytes: 62274
      txbytes: 6020

    application:
      id-num: 43
      short: instagram
      long: Instagram
      group-id: 2065
      group-long: Social
      groupset-id: 4
      groupset-short-id: surfing
      groupset-long-id: Web surfing
    groupset-service-class: 2
      rxbytes: 57606
      txbytes: 11148

    application:
      id-num: 428
      short: spotify
      long: Spotify
      group-id: 2079
      group-long: Audio Entertainment
      groupset-id: 2
      groupset-short-id: streaming
      groupset-long-id: Video & Audio streaming
    groupset-service-class: 2
      rxbytes: 155317
      txbytes: 80526

    application:
      id-num: 438
      short: whatsapp
      long: WhatsApp
      group-id: 2055
      group-long: Messaging
    groupset-id: 0
```

```

    groupset-short-id: calling
    groupset-long-id: Calling and conferencing
groupset-service-class: 2
    rxbytes: 826
    txbytes: 706

application:
    id-num: 461
    short: google-cloud
    long: Google Cloud
    group-id: 2073
    group-long: Cloud and CDN Services
    groupset-id: 5
    groupset-short-id: other
    groupset-long-id: Other
groupset-service-class: 2
    rxbytes: 313
    txbytes: 352

application:
    id-num: 498
    short: telegram
    long: Telegram
    group-id: 2055
    group-long: Messaging
    groupset-id: 0
    groupset-short-id: calling
    groupset-long-id: Calling and conferencing
groupset-service-class: 2
    rxbytes: 109895
    txbytes: 15561

application:
    id-num: 559
    short: google-play
    long: Google Play
    group-id: 2086
    group-long: App-Stores and OS Updates
    groupset-id: 6
    groupset-short-id: filetransferring
    groupset-long-id: File transferring
groupset-service-class: 2
    rxbytes: 16736
    txbytes: 28451

application:
    id-num: 611
    short: zendesk
    long: ZenDesk
    group-id: 2052
    group-long: Business
    groupset-id: 3
    groupset-short-id: work
    groupset-long-id: Work & Learn from home

```

```
groupset-service-class: 2
    rxbytes: 101697
    txbytes: 187527

application:
    id-num: 621
    short: slack
    long: Slack
    group-id: 2064
    group-long: Conference
    groupset-id: 0
    groupset-short-id: calling
    groupset-long-id: Calling and conferencing
groupset-service-class: 2
    rxbytes: 30568
    txbytes: 3650

application:
    id-num: 632
    short: google-services
    long: Google Shared Services
    group-id: 2085
    group-long: Enterprise Services
    groupset-id: 4
    groupset-short-id: surfing
    groupset-long-id: Web surfing
groupset-service-class: 2
    rxbytes: 614512
    txbytes: 202174

application:
    id-num: 664
    short: microsoft-services
    long: Microsoft Services
    group-id: 2085
    group-long: Enterprise Services
    groupset-id: 4
    groupset-short-id: surfing
    groupset-long-id: Web surfing
groupset-service-class: 2
    rxbytes: 20243
    txbytes: 10699

application:
    id-num: 700
    short: fastly
    long: Fastly
    group-id: 2073
    group-long: Cloud and CDN Services
    groupset-id: 5
    groupset-short-id: other
    groupset-long-id: Other
groupset-service-class: 2
    rxbytes: 14859
```



```
txbytes: 3147

application:
  id-num: 703
  short: cloudflare
  long: Cloudflare
  group-id: 2073
  group-long: Cloud and CDN Services
  groupset-id: 5
  groupset-short-id: other
  groupset-long-id: Other
groupset-service-class: 2
  rxbytes: 2172
  txbytes: 3593

application:
  id-num: 719
  short: google-apis
  long: Google APIs
  group-id: 2052
  group-long: Business
  groupset-id: 3
  groupset-short-id: work
  groupset-long-id: Work & Learn from home
groupset-service-class: 2
  rxbytes: 11837
  txbytes: 7602

application:
  id-num: 933
  short: bamtech-media
  long: BAMTech Media
  group-id: 2083
  group-long: Multimedia Service Providers
  groupset-id: 2
  groupset-short-id: streaming
  groupset-long-id: Video & Audio streaming
groupset-service-class: 2
  rxbytes: 4734
  txbytes: 6006

os-id: 3
os-long: Windows

host:
  mac: 04:d4:c4:54:31:12
  via: 04:d4:c4:54:31:12
  ip: 192.168.11.19
  hostname: MyHost
  name: MyHost

interface:
  id: Bridge0
  name: Home
```

```

description: Home network

dhcp:
  static: yes

registered: yes
  access: permit
  schedule:
    active: yes
    rxbytes: 0
    txbytes: 0
    uptime: 9083
  first-seen: 9097
  last-seen: 1
  link: up
auto-negotiation: yes
  speed: 1000
  duplex: yes
  port: 2

traffic-shape:
  rx: 0
  tx: 0
  mode: mac
  schedule:

```

History

| Version | Description |
|---------|---|
| 3.07 | The show ntce hosts command has been introduced. |

3.148.92 show ntce oses

Description Show the list of OSes supported by the *NTCE* service.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ntce oses**

Example (show)> **ntce oses**

```

os:
  id-num: 1
  long: Not detected

os:
  id-num: 2
  long: Other

```

```

OS:
id-num: 3
  long: Windows

OS:
id-num: 4
  long: Linux

OS:
id-num: 5
  long: OS X

OS:
id-num: 6
  long: iOS

OS:
id-num: 7
  long: Symbian

OS:
id-num: 8
  long: Android

OS:
id-num: 9
  long: Blackberry

OS:
id-num: 10
  long: WindowsMobile

OS:
id-num: 11
  long: WindowsPhone

OS:
id-num: 12
  long: Chrome

OS:
id-num: 13
  long: Darwin

```

History

| Version | Description |
|---------|--|
| 3.07 | The show ntce oses command has been introduced. |

3.148.93 show ntce status

Description Show *NTCE* service info.

Prefix no No**Change settings** No**Multiple input** No**Synopsis** (show)> **ntce status****Example** (show)> **ntce status**

```

contrack:
  hosts: 2
  applications: 16
  applications-flows: 63
  applications-events: 0
  groups: 12
  groups-flows: 64
  groups-events: 0

  memory:
    applications-flows: 1512
    applications-events: 0
    applications: 512
    groups-flows: 1536
    groups-events: 0
    groups: 384
    hosts: 72
    total: 4016

  event:
    count: 0

  memory:
    total: 0

database:
  hosts: 1
  applications: 54
  groups: 30
  attributes: 6

  memory:
    applications: 2372976
    groups: 1318320
    attributes: 263664
    total: 3954960

```

History

| Version | Description |
|---------|--|
| 3.07 | The show ntce status command has been introduced. |

3.148.94 show ntp status

Description Show *NTP* system settings.

NTP state general info

- ❶ The time elapsed since the last synchronization in seconds.
- ❷ The indicator of the last synchronization.
- ❸ The indicator of the initial synchronization.
- ❹ Time is taken from NDSS server.
- ❺ Time is set by the user manually.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ntp status**

Example (show)> **ntp status**

```
status:
  elapsed: 435146 ❶
  server: 1.pool.ntp.org
  accurate: yes ❷
  synchronized: yes ❸
  ndsstime: no ❹
  usertime: no ❺
```

History

| Version | Description |
|---------|---|
| 2.00 | The show ntp status command has been introduced. |

3.148.95 show ping-check

Description Show *Ping Check* profile status. If you use no arguments, the command displays information about all profiles.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ping-check** [*profile_name*]

Arguments

| Argument | Value | Description |
|--------------|---------------|---------------|
| profile_name | <i>String</i> | Profile name. |

Example

```
(show)> ping-check

pingcheck:
  profile: TEST
  host: 8.8.8.8
  port: 80
  max-fails: 7
  timeout: 1
  mode: connect

interface: ISP
  fail count: 0
  status: pass

pingcheck:
  profile: TEST1
  mode: icmp

pingcheck:
  profile: TEST2
  mode: icmp
```

History

| Version | Description |
|---------|---|
| 2.04 | The show ping-check command has been introduced. |

3.148.96 show printers

Description Show attached printer list.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **printers**

Example

```
(show)> printers

printers:
  printer: Canon MF8300C Series
```

History

| Version | Description |
|---------|---|
| 2.00 | The show printers command has been introduced. |

3.148.97 show processes

| | |
|------------------------|---|
| Description | Show statistics of CPU usage by services and processes. |
| Prefix no | No |
| Change settings | No |
| Multiple input | No |
| Synopsis | <code>(show)> processes</code> |

Example

```
(show)> processes

process, id = NETBIOS browser:
  name: nqnd

  arg: -i

  arg: 50ff20001e87

  state: S (sleeping)
  pid: 629
  ppid: 192
  vm-size: 3188 kB
  vm-data: 1548 kB
  vm-stk: 136 kB
  vm-exe: 4 kB
  vm-lib: 1448 kB
  vm-swap: 0 kB
  threads: 1
  fds: 15

statistics:
  interval: 30

  cpu:
    now: 17319.483753
    min: 0
    max: 0
    avg: 0
    cur: 0

  service:
    configured: yes
    alive: yes
    started: yes
    state: STARTED

process, id = Dns::Proxy::Policy0:
  name: ndnproxy

  arg: -c
```

```

    arg: /var/ndnproxy_Policy0.conf

    arg: -p

    arg: /var/ndnproxy_Policy0.pid

    state: S (sleeping)
    pid: 630
    ppid: 192
    vm-size: 1676 kB
    vm-data: 504 kB
    vm-stk: 136 kB
    vm-exe: 108 kB
    vm-lib: 896 kB
    vm-swap: 0 kB
    threads: 1
    fds: 10

    statistics:
        interval: 30

        cpu:
            now: 17319.483764
            min: 0
            max: 0
            avg: 0
            cur: 0

    service:
        configured: yes
        alive: yes
        started: yes
        state: STARTED

```

History

| Version | Description |
|---------|--|
| 2.09 | The show processes command has been introduced. |

3.148.98 show running-config

Description Show current settings, that is file system: running-config contains, just like command **more** does.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **running-config**

Example

```
(show)> running-config
! $$$ Model: Keenetic Start
! $$$ Version: 2.06.1
! $$$ Agent: http/rci
! $$$ Last change: Fri, 12 Jan 2017 07:23:56 GMT
system
  set net.ipv4.ip_forward 1
  set net.ipv4.netfilter.ip_conntrack_max 4096
  set net.ipv4.netfilter.ip_conntrack_tcp_timeout_established 1200
  set net.ipv4.netfilter.ip_conntrack_udp_timeout 60
  set net.ipv4.tcp_fin_timeout 30
  set net.ipv4.tcp_keepalive_time 120
  set net.ipv6.conf.all.forwarding 1
  hostname Keenetic
  domainname WORKGROUP
!
ntp server 0.pool.ntp.org
ntp server 1.pool.ntp.org
ntp server 2.pool.ntp.org
ntp server 3.pool.ntp.org
access-list _WEBADMIN_GuestWiFi
  deny tcp 0.0.0.0 0.0.0.0 10.1.30.1 255.255.255.255
!
access-list _WEBADMIN_ISP
  permit tcp 0.0.0.0 0.0.0.0 192.168.15.200 255.255.255.255
  port eq 3389
  permit icmp 0.0.0.0 0.0.0.0 0.0.0.0 0.0.0.0
!
isolate-private
dyndns profile _ABCD
!
dyndns profile _WEBADMIN
  type dyndns
!
interface FastEthernet0
  up
!
interface FastEthernet0/0
  switchport mode access
  switchport access vlan 1
!
interface FastEthernet0/1
  switchport mode access
  switchport access vlan 1
!
interface Bridge0
  name Home
  description "Home network"
  inherit FastEthernet0/Vlan1
  include AccessPoint
  security-level private
  ip address 192.168.15.43 255.255.255.0
  up
```

```
!  
interface WiMax0  
    description Yota  
    security-level public  
    ip address auto  
    ip global 400  
    up  
!  
interface PPTP0  
    description "Office VPN"  
    peer crypton.example.net  
    lcp echo 30 3  
    ipcp default-route  
    ipcp name-servers  
    ccp  
    security-level public  
    authentication identity "00441"  
    authentication password 123456  
    authentication mschap  
    authentication mschap-v2  
    encryption mppe  
    ip tcp adjust-mss pmtu  
    connect via ISP  
    up  
!  
ip route 82.138.7.141 ISP auto  
ip route 82.138.7.132 ISP auto  
ip route 82.138.7.27 PPTP0 auto  
ip dhcp pool _WEBADMIN  
    range 192.168.15.200 192.168.15.219  
    bind Home  
!  
ip dhcp pool _WEBADMIN_GUEST_AP  
    range 10.1.30.33 10.1.30.52  
    bind GuestWiFi  
!  
ip dhcp host A 00:01:02:03:04:05 1.1.1.1  
ip dhcp host B 00:01:02:03:04:06 1.1.1.2  
ip nat Home  
ip nat GuestWiFi  
ipv6 subnet Default  
    bind Home  
    number 0  
    mode slaac  
!  
ipv6 local-prefix default  
no ppe  
upnp lan Home  
torrent  
    rpc-port 8090  
    peer-port 51413  
!  
user admin  
    password md5 2320924ba6e5c1fec3957e587a21535b
```

```

tag cli
tag cifs
tag http
tag ftp
!
user test
  password md5 baadfb946f5d516379cfd75e31e409d9
  tag readonly
!
service dhcp
service dns-proxy
service ftp
service cifs
service http
service telnet
service ntp
service upnp
cifs
  share 9430B54530B52EDC 9430B54530B52EDC:
  automount
  permissive
!
!
!
```

History

| Version | Description |
|---------|---|
| 2.00 | The show running-config command has been introduced. |

3.148.99 show schedule

Description Show parameters of defined schedule. If you use no argument, the entire list of system schedules will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **schedule** [<name>]

Arguments

| Argument | Value | Description |
|----------|--------|------------------|
| name | String | A schedule name. |

Example

```
(show)> schedule 123

schedule, name = 123:
  action, type = start, left = 561514, next = yes:
```

```

dow: Tue
time: 01:29

action, type = stop, left = 564274:
dow: Tue
time: 02:15

```

History

| Version | Description |
|---------|---|
| 2.06 | The show schedule command has been introduced. |

3.148.100 show self-test

Description Show summary information about system activity. Need to provide remote technical support.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **self-test**

History

| Version | Description |
|---------|--|
| 2.00 | The show self-test command has been introduced. |

3.148.101 show site-survey

Description Show available wireless networks.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis | (show)> **site-survey** <name>

Arguments

| Argument | Value | Description |
|----------|------------------|---|
| name | <i>Interface</i> | Full name or an alias of the interface. You can see the list of available interfaces with help of site-survey [Tab] command. |

Example

```
(show)> site-survey WifiMaster0
```

| SSID | | MAC | Ch | Mode ▶ |
|---------------|----|-------------------|----|--------|
| Q | | | | |
| Hello_123 | | 11:22:d4:70:97:f1 | 1 | ▶ |
| 11b/g/n | 31 | | | |
| BRT | | 78:69:87:b3:9d:68 | 1 | ▶ |
| 11b/g/n | 13 | | | |
| SVH34-34 | | 23:bf:45:7b:0e:2e | 1 | ▶ |
| 11b/g/n | 5 | | | |
| Keenetic-1234 | | 56:f4:ab:56:9a:48 | 3 | ▶ |
| 11b/g/n | 26 | | | |

```
(show)> site-survey WifiMaster1
```

| SSID | | MAC | Ch | Mode ▶ |
|-------------------|----|-------------------|----|--------|
| Q | | | | |
| Keenetic-1153 (5) | | 34:ff:22:3d:69:fc | 36 | ▶ |
| 11a/n/ac | 2 | | | |
| RT-5WiFi-87F8 | | 15:a3:b8:e6:57:fa | 44 | ▶ |
| 11a/n/ac | 42 | | | |
| GPON5 | | 23:9a:34:b1:b1:26 | 48 | ▶ |
| 11a/n/ac | 0 | | | |

History

| Version | Description |
|---------|--|
| 2.00 | The show site-survey command has been introduced. |

3.148.102 show snmp view

Description Show *SNMP* view status.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **snmp view**

Example

```
(show)> snmp view
```

```
view:
  id: client

include: .1.3.6.1

exclude: .1.3.6.1.2
```

History

| Version | Description |
|---------|--|
| 4.01 | The show snmp view command has been introduced. |

3.148.103 show ssh fingerprint

Description Show current SSH server keys.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **ssh fingerprint**

Example

```
(show)> ssh fingerprint

rsa: MD5:d0:b0:d4:f7:da:7b:c0:e0:d0:c8:8f:ea:85:3c:09:00
rsa: SHA1:Nhxg8KNeE62E8zAZJngImcrJkmA
rsa: SHA256:LM7MyrIaq4qFGT/dyF/t8TbJk5tCzreeGuh03zaydu4
ecdsa: ▶
MD5:a6:db:b4:fb:3c:b9:ae:31:ca:6d:ca:ed:62:73:a5:7e
ecdsa: SHA1:ndWg/dx/dP/P8rMkJcVC3XB8nFo
ecdsa: ▶
SHA256:Wp1K9d8MsquQBtlBeBlpVlyKdCN1Vay3BtBwbj0xs+o
```

History

| Version | Description |
|---------|--|
| 2.12 | The show ssh fingerprint command has been introduced. |

3.148.104 show ssh sftp

Description Show home directories for users with **sftp** tag.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **ssh sftp**

Example

```
(show)> ssh sftp

    enabled: yes
    permissive: yes
    root: files_ssd:/
    path: /tmp/mnt/963b0583-4017-401b-9542-7ff1255add40

    user, index = 0:
        name: admin
        root:
        path: ►
```

History

| Version | Description |
|---------|---|
| 3.04 | The show ssh sftp command has been introduced. |

3.148.105 show sstp-server

Description Show current connections to the [SSTP](#) server.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **sstp-server**

Example

```
(show)> sstp-server

    enabled: yes
    ndns-name: mymy.keenetic.link
    has-ndns-certificate: yes

    tunnel:
    clientaddress: 172.16.3.33
    username: mymy
    uptime: 29

    statistic:
        rxpackets: 121
    rx-multicast-packets: 0
    rx-broadcast-packets: 0
        rxbytes: 14715
        rxerrors: 0
        rxdropped: 0
        txpackets: 78
    tx-multicast-packets: 0
    tx-broadcast-packets: 0
        txbytes: 48265
        txerrors: 0
```

```
txdropped: 0
timestamp: 104530.202229
last-overflow: 0.000000
```

History

| Version | Description |
|---------|--|
| 2.12 | The show sstp-server command has been introduced. |

3.148.106 show system

Description Show the general state of the system.

System state general info

- ❶ CPU load, percentage.
- ❷ Occupied and available memory info, kilobytes.
- ❸ Swap file usage info, kilobytes.
- ❹ System uptime from the start, seconds.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **system**

Example

```
(config)> show system
```

```
hostname: Undefined
domainname: WORKGROUP
cpuload: 0 ❶
memory: 13984/28976 ❷
swap: 0/0 ❸
uptime: 153787 ❹
```

History

| Version | Description |
|---------|---|
| 2.00 | The show system command has been introduced. |

3.148.107 show system country

Description Show country-specific configuration status depending on the factory region.

Prefix no No

Change settings No

Multiple input No

Synopsis`(show)> system country`**Example**

```
(show)> system country

    factory: EA
    selected: KZ
    default-language: ru

    country:
        code: AM
        short-name: Armenia
    default-language: en

    country:
        code: AZ
        short-name: Azerbaijan
    default-language: en

    country:
        code: BY
        short-name: Belarus
    default-language: ru

    country:
        code: KG
        short-name: Kyrgyzstan
    default-language: en

    country:
        code: KZ
        short-name: Kazakhstan
    default-language: ru

    country:
        code: RU
        short-name: Russian Federation
    default-language: ru

    country:
        code: UZ
        short-name: Uzbekistan
    default-language: en
```

History

| Version | Description |
|---------|---|
| 4.00 | The show system country command has been introduced. |

3.148.108 show system cpustat**Description** Show device CPU usage.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> system cpustat`

Example `(show)> system cpustat`

```
interval: 36

  busy:
    cur: 1
    min: 0
    max: 11
    avg: 2

  user:
    cur: 0
    min: 0
    max: 10
    avg: 1

  nice:
    cur: 0
    min: 0
    max: 0
    avg: 0

  system:
    cur: 0
    min: 0
    max: 2
    avg: 0

  iowait:
    cur: 0
    min: 0
    max: 0
    avg: 0

  irq:
    cur: 0
    min: 0
    max: 0
    avg: 0

  sirq:
    cur: 0
    min: 0
    max: 0
    avg: 0
```

| History | Version | Description |
|---------|---------|---|
| | 2.09 | The show system cpustat command has been introduced. |

3.148.109 show system zram

Description Show system zRam swap status.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> system zram`

Example

```
(show)> system zram

      zram:
        enabled: yes
        compression-algo: lzo
        disk-size: 268435456
        compressed-size: 87
        original-size: 4096
        total-memory-used: 12288
        compression-threads: 4
        compressed-ratio-pcs: 300
```

| History | Version | Description |
|---------|---------|--|
| | 2.09 | The show system zram command has been introduced. |

3.148.110 show tags

Description Show available authentication tags.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> tags`

Example

```
(show)> tags

      tag: cli
      tag: readonly
      tag: http-proxy
```

```

tag: http
tag: printers
tag: cifs
tag: ftp
tag: ipsec-xauth
tag: ipsec-l2tp
tag: opt
tag: sstp
tag: torrent
tag: vpn

```

History

| Version | Description |
|---------|---|
| 2.00 | The show tags command has been introduced. |

3.148.111 show threads

Description Show the list of active threads in NDM.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **threads**

Example

```

(show)> threads

thread:
    name: Cloud agent service
    tid: 518
lock_list_complete: yes
locks:

statistics:
    interval: 30

cpu:
    now: 17771.481435
    min: 0
    max: 0
    avg: 0
    cur: 0

thread:
    name: FTP brute force detection
    tid: 519
lock_list_complete: yes
locks:

```

```

statistics:
  interval: 30

  cpu:
    now: 17771.481440
    min: 0
    max: 0
    avg: 0
    cur: 0

```

History

| Version | Description |
|---------|--|
| 2.09 | The show threads command has been introduced. |

3.148.112 show torrent status

Description Show BitTorrent client status.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **torrent status**

Example (show)> **torrent status**

```

state: running
rpc-port: 8090

```

History

| Version | Description |
|---------|---|
| 2.03 | The show torrent status command has been introduced. |

3.148.113 show upnp redirect

Description Show *UPnP* port translation rules. If you use no arguments, the entire list of translation rules will be displayed.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Synopsis | (show)> **upnp redirect** [(<protocol> <interface> <port>) | <index>]

Arguments

| Argument | Value | Description |
|-----------|------------------|---|
| protocol | tcp | Rules with <i>TCP</i> protocol will be displayed. |
| | udp | Rules with <i>UDP</i> protocol will be displayed. |
| interface | <i>Interface</i> | Rules with specified interface name will be displayed. |
| port | <i>Integer</i> | Rules with specified port will be displayed. |
| index | <i>Integer</i> | Rule with specified number in the list will be displayed. |

Example

```
(show)> upnp redirect udp ISP 11175

entry:
  index: 1
  interface: ISP
  protocol: udp
  port: 11175
  to-address: 192.168.15.206
  to-port: 11175
  description: Skype UDP at 192.168.12.286:11175 (2024)
  packets: 0
  bytes: 0
```

History

| Version | Description |
|---------|--|
| 2.00 | The show upnp redirect command has been introduced. |

3.148.114 show usb

Description Show list of USB-devices.

Prefix no No

Change settings No

Multiple input No

Synopsis | (show)> **usb**

Example

```
(show)> usb

device:
  name: 12F6-312F:
  label: PENDRIVE
  subsystem: storage
device:
  name: 69f2894d-56a1-4632-9521-dbdc8ab5c53d:
  label: EXT3
  subsystem: storage
```

```

device:
  name: 4FCC-A585:
  label: FAT32
  subsystem: storage
device:
  name: 226F114C088FC43D:
  label: NTFS
  subsystem: storage

```

History

| Version | Description |
|---------|--|
| 2.00 | The show usb command has been introduced. |

3.148.115 show version

Description Show firmware version.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **version**

Example

```

(show)> version

release: 2.10.C.1.0-0
arch: mips

ndm:
  exact: 0-d32118a
  cdate: 11 Dec 2017

bsp:
  exact: 0-cbe0525
  cdate: 11 Dec 2017

ndw:
  version: 4.2.3.92
  features: ▶
wifi_button,flexible_menu,emulate_firmware_progress
components: ▶
ddns,dot1x,interface-extras,miniupnpd,nathelper-ftp,
▶
nathelper-pptp,nathelper-sip,ppe,trafficcontrol,
▶
cloudcontrol,base,components,corewireless,dhcpd,l2tp,
▶
igmp,easyconfig,pingcheck,ppp,pptp,pppoe,ydns

```

```

manufacturer: Keenetic Ltd.
vendor: Keenetic
series: KN
model: Start (KN-1110)
hw_version: 10118000
hw_id: KN-1110
device: Start
class: Internet Center

```

History

| Version | Description |
|---------|--|
| 2.00 | The show version command has been introduced. |

3.148.116 show vpn-server

Description Show current connections to the VPN server.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **vpn-server**

Example (show)> **vpn-server**

```

tunnel:
clientaddress: 172.16.1.33
username: test
uptime: 3

statistic:
rxpackets: 51
rx-multicast-packets: 0
rx-broadcast-packets: 0
rxbytes: 5440
rxerrors: 0
rxdropped: 0
txpackets: 46
tx-multicast-packets: 0
tx-broadcast-packets: 0
txbytes: 9229
txerrors: 0
txdropped: 0
timestamp: 146237.254244
last-overflow: 0.000000

```

History

| Version | Description |
|---------|---|
| 2.04 | The show vpn-server command has been introduced. |

3.149 sms

Description Access to a group of commands to configure *SMS* on the interface.

Prefix no No

Change settings No

Multiple input No

Interface type Usb

Group entry (sms)

Synopsis (config)> **sms** <name>

Arguments

| Argument | Value | Description |
|----------|------------------|-----------------------------|
| name | <i>Interface</i> | Interface with SMS service. |

Example

```
(config)> sms UsbQmi0
(sms)>
```

History

| Version | Description |
|---------|---|
| 3.03 | The sms command has been introduced. |

3.149.1 sms delete

Description Delete SMS message.

Prefix no No

Change settings No

Multiple input No

Synopsis (sms)> **delete** <id>

Arguments

| Argument | Value | Description |
|----------|---------------|-------------|
| id | <i>String</i> | Message ID. |

Example

```
(sms)> delete sim-5
UsbQmi::Sms: "UsbQmi0": message deleted.
```

History

| Version | Description |
|---------|--|
| 3.03 | The sms delete command has been introduced. |

3.149.2 sms list

Description Show a list of received SMS messages.

Prefix no No

Change settings No

Multiple input No

Synopsis `(sms)> list [unread] [id <id>] [no-content]`

Arguments

| Argument | Value | Description |
|------------|---------|--|
| unread | Keyword | Show a list of unread SMS messages only. |
| id | Keyword | Show message with the given identifier. |
| no-content | Keyword | Disable message text output. |

Example

```
(sms)> list

nv-free-slots: 23
nv-total-slots: 23
sim-free-slots: 0
sim-total-slots: 15

messages, id = sim-0:
  read: yes
  from: +79658283425
  timestamp: Thu Aug 20 14:39:57 2020
  parts: 1
  total-parts: 1
  text: Accepted

messages, id = sim-1:
  read: yes
  from: MegaFon
  timestamp: Wed Sep 9 13:57:21 2020
  parts: 2
  total-parts: 2
  text: 636-269 – your personal login code.
  Do not share this code with anyone.

messages, id = sim-3:
  read: yes
  from: +79658283425
  timestamp: Wed Sep 9 16:32:26 2020
  parts: 1
  total-parts: 1
  text: Our time to your time to yes to

messages, id = sim-4:
```

```

        read: yes
        from: +79658283425
        timestamp: Mon Sep 14 17:14:11 2020
        parts: 1
        total-parts: 1
        text: 0k

    messages, id = sim-5:
        read: yes
        from: MegaFon
        timestamp: Wed Sep 16 10:24:46 2020
        parts: 7
        total-parts: 7
        text: Listen to audiobooks on management, ►
leadership,
personal efficiency and self-development ►
2 weeks free!
Just subscribe to the MegaFon AudioBooks ►
and
listen to them without advertising on any ►
convenient device.
The cost after the trial period - 1 euro ►
/ day.
Payment from the phone account without ►
card binding. Cancel
subscriptions at any time: pay only for ►
days
of usage. Learn more:
http://i.megafon.com/Q2XadzRp9xusLwS1

    messages, id = sim-12:
        read: no
        from: +79252384670
        timestamp: Fri Sep 18 19:02:27 2020
        parts: 3
        total-parts: 4
        text: This subscriber left you 18.09.2020 at ►
18:35
voice message. You can listen to it for ►
free by
number 0525. / Listen to podcasts and ►
book parodies in
convenient application without advertising ►
for 5 e/d. Detailed[...].

(sms)> list id xnv-64

    nv-free-slots: 68
    nv-total-slots: 128
    sim-free-slots: 15
    sim-total-slots: 15
    messages-count: 1

```

```

messages, id = xnv-64:
  read: yes
  from: mTinkoff
  timestamp: Sat Jul  3 17:30:46 2021
  parts: 2
  total-parts: 2
  text: Replenishment: 10.00 €. Available: 31.00 €.

```

```
(sms)> list no-content
```

```

nv-free-slots: 12
nv-total-slots: 23
sim-free-slots: 10
sim-total-slots: 10
messages-count: 5

messages, id = nv-3:
  read: yes

messages, id = nv-7:
  read: yes

messages, id = nv-2:
  read: yes

messages, id = nv-0:
  read: yes

messages, id = nv-1:
  read: yes

```

History

| Version | Description |
|---------|---|
| 3.03 | The sms list command has been introduced. |
| 3.07 | The id and no-content arguments were added. |

3.149.3 sms read

| | |
|------------------------|--|
| Description | Mark SMS as read. Command with no prefix return unread SMS mark. |
| Prefix no | Yes |
| Change settings | No |
| Multiple input | No |
| Synopsis | <code>(sms)> read <id></code> |

| Argument | Value | Description |
|----------|---------------|-------------|
| id | <i>String</i> | Message ID. |

Example

```
(sms)> read sim-5
UsbQmi::Sms: "UsbQmi0": message marked as read.
```

```
(sms)> no read sim-5
UsbQmi::Sms: "UsbQmi0": message marked as unread.
```

History

| Version | Description |
|---------|--|
| 3.03 | The sms read command has been introduced. |

3.149.4 sms send

Description Send SMS to specified number. The maximum value of saved incoming SMS messages in the router's memory is 128. If the memory is full, the oldest SMS from the memory will be automatically deleted when a new SMS is received.

Prefix no No

Change settings No

Multiple input No

Synopsis `(sms)> send <to> <message>`

| Argument | Value | Description |
|----------|---------------|------------------------------|
| to | <i>String</i> | The receiver's phone number. |
| message | <i>String</i> | Text message to send. |

Example

```
(sms)> send +79261122777 "hello world!"
UsbQmi::Sms: "UsbQmi0": message sent.
```

History

| Version | Description |
|---------|--|
| 3.03 | The sms send command has been introduced. |

3.150 snmp community

Description Set new name for *SNMP* community. By default, common name `public` is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes**Multiple input** No

Synopsis

```
(config)> snmp community <community>
```

```
(config)> no snmp community
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---------------------|
| community | <i>String</i> | New community name. |

Example

```
(config)> snmp community Co_test
Sntp::Manager: SNMP community set to "Co_test".
(config)> no snmp community
Sntp::Manager: SNMP community reset to "public".
```

History

| Version | Description |
|---------|--|
| 2.08 | The snmp community command has been introduced. |

3.151 snmp contact

Description Assign the contact name of *SNMP* agent. By default, the name is not defined.
Command with **no** prefix resets setting.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config)> snmp contact <contact>
```

```
(config)> no snmp contact
```

Arguments

| Argument | Value | Description |
|----------|---------------|---------------------------|
| contact | <i>String</i> | <i>SNMP</i> contact info. |

Example

```
(config)> snmp contact Cont_test
Sntp::Manager: SNMP contact info set to "Cont_test".
(config)> no snmp contact
Sntp::Manager: SNMP community info reset.
```

History

| Version | Description |
|---------|--|
| 2.08 | The snmp contact command has been introduced. |

3.152 snmp location

Description Assign the location of *SNMP* agent. By default, the location is not defined.

Command with **no** prefix resets setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> snmp location <location>
```

```
(config)> no snmp location
```

Arguments

| Argument | Value | Description |
|----------|---------------|------------------------------|
| location | <i>String</i> | <i>SNMP</i> device location. |

Example

```
(config)> snmp location Odintsovo
Snmp::Manager: SNMP device location set to "Odintsovo".
(config)> no snmp location
Snmp::Manager: SNMP device location reset.
```

History

| Version | Description |
|---------|---|
| 2.08 | The snmp location command has been introduced. |

3.153 snmp view

Description Create *SNMP* community with restricted access.

Command with **no** prefix removes community.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> snmp view <name>
```

```
(config)> no snmp view <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| name | <i>String</i> | Community name in reduced form, not more than 32 characters. The maximum number of communities is 4. |

Example

```
(config)> snmp view client
Snmp::Manager: Created view "client".
```

```
(config)> no snmp view client
Snmp::Manager: Removed view "client".
```

History

| Version | Description |
|---------|---|
| 4.01 | The snmp view command has been introduced. |

3.154 snmp view exclude

Description

Add subtree exclusion from *SNMP* view.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> snmp view exclude <oid>
```

```
(config)> no snmp view exclude [ <oid> ]
```

Arguments

| Argument | Value | Description |
|----------|---------------|--------------------|
| oid | <i>String</i> | Object identifier. |

Example

```
(config)> snmp view client exclude mgmt
Snmp::Manager: "client": added excluded OID "mgmt".
```

```
(config)> no snmp view client exclude mgmt
Snmp::Manager: "client": removed excluded OID "mgmt".
```

History

| Version | Description |
|---------|---|
| 4.01 | The snmp view exclude command has been introduced. |

3.155 snmp view include

Description

Add include subtree for *SNMP* view.

Command with **no** prefix removes the setting.

Prefix no

Yes

Change settings

Yes

| Multiple input | No | | | | | | |
|-----------------------|--|--------------------|-------------|-------------|---|---------------|--------------------|
| Synopsis | <pre>(config)> snmp view include <oid></pre> <pre>(config)> no snmp view include [<oid>]</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>oid</td> <td><i>String</i></td> <td>Object identifier.</td> </tr> </tbody> </table> | Argument | Value | Description | oid | <i>String</i> | Object identifier. |
| Argument | Value | Description | | | | | |
| oid | <i>String</i> | Object identifier. | | | | | |
| Example | <pre>(config)> snmp view client include internet</pre> <pre>Snmp::Manager: "client": added included OID "internet".</pre> <pre>(config)> no snmp view client include internet</pre> <pre>Snmp::Manager: "client": removed included OID "internet".</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>4.01</td> <td>The snmp view include command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 4.01 | The snmp view include command has been introduced. | | |
| Version | Description | | | | | | |
| 4.01 | The snmp view include command has been introduced. | | | | | | |

3.156 sstp-server

| Description | Access to a group of commands to configure SSTP server parameters. | | | | |
|------------------------|--|---------|-------------|------|---|
| Prefix no | No | | | | |
| Change settings | No | | | | |
| Multiple input | No | | | | |
| Group entry | (sstp-server) | | | | |
| Synopsis | <pre>(config)> sstp-server</pre> | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.12</td> <td>The sstp-server command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.12 | The sstp-server command has been introduced. |
| Version | Description | | | | |
| 2.12 | The sstp-server command has been introduced. | | | | |

3.156.1 sstp-server allow-bridging

| | |
|------------------------|---|
| Description | <p>Enable Ethernet bridging mode for SSTP server. By default, this mode is disabled.</p> <p>Command with no prefix disables the setting.</p> |
| Prefix no | Yes |
| Change settings | Yes |

Multiple input No

Synopsis

```
(sstp-server)> allow-bridging
(sstp-server)> no allow-bridging
```

Example

```
(sstp-server)> allow-bridging
SstpServer::Manager: Enabled Ethernet mode.

(sstp-server)> no allow-bridging
SstpServer::Manager: Disabled Ethernet mode.
```

History

| Version | Description |
|---------|--|
| 3.09 | The sstp-server allow-bridging command has been introduced. |

3.156.2 sstp-server dhcp route

Description Assign a route which is transmitted in DHCP INFORM messages to the *SSTP* server clients.

Command with **no** prefix cancels the specified route. If you use no arguments, the entire list of routes will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(sstp-server)> dhcp route <address> <mask>
(sstp-server)> no dhcp route [ <address> <mask> ]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | Network client address. |
| mask | <i>IP-mask</i> | Network client mask. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |

Example

```
(sstp-server)> dhcp route 192.168.2.0/24
SstpServer::Manager: Added DHCP INFORM route to ►
192.168.2.0/255.255.255.0.

(sstp-server)> no dhcp route
SstpServer::Manager: Cleared DHCP INFORM routes.
```

| History | Version | Description |
|---------|---------|--|
| | 2.12 | The sstp-server dhcp route command has been introduced. |

3.156.3 sstp-server interface

Description Bind *SSTP* server to the specified interface.
Command with **no** prefix unbinds the interface.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)> interface <interface>
(sstp-server)> no interface
```

| Arguments | Argument | Value | Description |
|-----------|-----------|------------------|--|
| | interface | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example (sstp-server)> **interface** [Tab]

```
Usage template:
  interface {interface}
```

```
Choose:
  GigabitEthernet1
  ISP
  WifiMaster0/AccessPoint2
  WifiMaster1/AccessPoint1
  WifiMaster0/AccessPoint3
  WifiMaster0/AccessPoint0
  AccessPoint
  WifiMaster1/AccessPoint2
  WifiMaster0/AccessPoint1
  GuestWiFi
```

```
(sstp-server)> interface Bridge0
SstpServer::Manager: Bound to Bridge0.
```

| History | Version | Description |
|---------|---------|---|
| | 2.12 | The sstp-server interface command has been introduced. |

3.156.4 sstp-server ipv6cp

Description Enable IPv6 support. DHCP IPv6 pools are created for each *SSTP* server. By default, the setting is disabled.

Command with **no** prefix disables IPv6 support.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)>  ipv6cp
(sstp-server)> no ipv6cp
```

Example

```
(sstp-server)> ipv6cp
SstpServer::Manager: IPv6 control protocol enabled.
```

```
(sstp-server)> no ipv6cp
SstpServer::Manager: IPv6 control protocol disabled.
```

History

| Version | Description |
|---------|--|
| 3.00 | The sstp-server ipv6cp command has been introduced. |

3.156.5 sstp-server lcp echo

Description Specify the testing rules of the SSTP-connections with *LCP* echo tools.

Command with **no** prefix disables *LCP* echo.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)>  lcp echo <interval> <count> [adaptive]
(sstp-server)> no lcp echo
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| interval | <i>Integer</i> | Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply. |

| Argument | Value | Description |
|----------|----------------|---|
| count | <i>Integer</i> | The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated. |
| adaptive | <i>Keyword</i> | Pppd will send LCP echo-request frames only if no traffic was received from the peer since the last echo-request was sent. |

Example

```
(sstp-server)> lcp echo 5 3
SstpServer::Manager: LCP echo parameters updated.
```

History

| Version | Description |
|---------|--|
| 2.12 | The sstp-server lcp echo command has been introduced. |

3.156.6 sstp-server lcp force-pap

Description

Enforce the *PAP* authentication only for *SSTP* server.
Command with **no** prefix disables *PAP* authentication.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(sstp-server)> lcp force-pap
```

```
(sstp-server)> no lcp force-pap
```

Example

```
(sstp-server)> lcp force-pap
SstpServer::Manager: Forced PAP-only authentication.
```

```
(sstp-server)> no lcp force-pap
SstpServer::Manager: Disabled forcing PAP-only authentication.
```

History

| Version | Description |
|---------|---|
| 3.05 | The sstp-server lcp force-pap command has been introduced. |

3.156.7 sstp-server mru

Description

Set *MRU* value to be transmitted to *SSTP* server. By default, 1350 value is used.

Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)> mru <value>
(sstp-server)> no mru
```

Arguments

| Argument | Value | Description |
|----------|---------|---|
| value | Integer | MRU value. Can take values in the range from 128 to 1500 inclusively. |

Example

```
(sstp-server)> mru 200
SstpServer::Manager: MRU set to 200.
```

History

| Version | Description |
|---------|---|
| 2.12 | The sstp-server mru command has been introduced. |

3.156.8 sstp-server mtu

Description Set *MTU* value to be transmitted to *SSTP* server. By default, 1350 value is used.

Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)> mtu <value>
(sstp-server)> no mtu
```

Arguments

| Argument | Value | Description |
|----------|---------|---|
| value | Integer | MTU value. Can take values in the range from 128 to 1500 inclusively. |

Example

```
(sstp-server)> mtu 200
SstpServer::Manager: MTU set to 200.
```

| History | Version | Description |
|---------|---------|---|
| | 2.12 | The sstp-server mtu command has been introduced. |

3.156.9 sstp-server multi-login

Description Allow connection to *SSTP* server for multiple users from one account.
Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)> multi-login
(sstp-server)> no multi-login
```

Example

```
(sstp-server)> multi-login
SstpServer::Manager: Enabled multiple login.
```

| History | Version | Description |
|---------|---------|---|
| | 2.12 | The sstp-server multi-login command has been introduced. |

3.156.10 sstp-server pool-range

Description Assign a pool of addresses for the clients that connect to the *SSTP* server. By default, pool size 10 is used.

Command with **no** prefix removes a pool.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)> pool-range <begin> [ <size> ]
(sstp-server)> no pool-range
```

| Arguments | Argument | Value | Description |
|-----------|----------|-------------------|------------------------|
| | begin | <i>IP address</i> | Start address of pool. |
| | size | <i>Integer</i> | Pool size. |

Example (sstp-server)> **pool-range 192.168.1.22 7**
 SstpServer::Manager: Configured pool range 192.168.1.22 to ►
 192.168.1.28.

History

| Version | Description |
|---------|--|
| 2.12 | The sstp-server pool-range command has been introduced. |

3.156.11 sstp-server static-ip

Description Bind IP address to the user. User account must have sstp tag.

Command with **no** prefix removes binding.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(sstp-server)> static-ip <name> <address>
```

```
(sstp-server)> no static-ip <name>
```

Arguments

| Argument | Value | Description |
|----------|-------------------|---------------------|
| name | <i>String</i> | Username. |
| address | <i>IP address</i> | IP address to bind. |

Example (sstp-server)> **static-ip admin 192.168.1.22**
 SstpServer::Manager: Static IP 192.168.1.22 assigned to user ►
 "admin".

History

| Version | Description |
|---------|---|
| 2.12 | The sstp-server static-ip command has been introduced. |

3.157 system

Description Access to a group of commands to configure global parameters.

Prefix no No

Change settings No

Multiple input No

Group entry (system)

Synopsis

```
(config)> system
```

History

| Version | Description |
|---------|--|
| 2.00 | The system command has been introduced. |

3.157.1 system button

Description

Configure device buttons to handle specific actions. Available handlers depend on hardware configuration and installed modules.

Command with **no** prefix remove setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> button <button> on <action> do <handler>
```

```
(system)> no button <button>
```

Arguments

| Argument | Value | Description |
|----------|-------------------------|---|
| button | RESET | RESET button. |
| | WLAN | Wireless LAN button. |
| | FN | FN button. |
| action | click | Single click. |
| | double-click | Double click. |
| | hold | Push and hold for 3 seconds. RESET button hold is 10 seconds. |
| handler | FactoryReset | Reset system to factory defaults. |
| | Reboot | System reboot. |
| | WifiToggle | Switch Wi-Fi on/off. |
| | WifiGuestApToggle | Switch Guest Wi-Fi on/off. |
| | WpsStartMainAp | Start WPS (2.4GHz only). |
| | WpsStartMainAp5 | Start WPS (5GHz only). |
| | WpsStartAllMainAp | Start WPS (all frequency bands). |
| | UnmountAll | Unmount all disks. |
| | DlnaDirectoryRescan | Search for new files. |
| | DlnaDirectoryFullRescan | Full rescan. |

| Argument | Value | Description |
|----------|--------------------------|--|
| | TorrentAltSpeedToggle | Alternative speed on/off (component Transmission BitTorrent client required). |
| | TorrentClientStateToggle | Switch the BitTorrent client on/off (component Transmission BitTorrent client required). |
| | OpkgRunScript | Run the script on opkg-section, /etc/ndm/button.d/ folder (component OPKG required). |

Example

```
(system)> button WLAN on double-click do WifiGuestApToggle
Peripheral::Manager: "WLAN/double-click" handler set.
```

History

| Version | Description |
|---------|---|
| 2.03 | The system button command has been introduced. |
| 2.06 | The OpkgRunScript handler was added. |

3.157.2 system caption

Description Set the Web interface title and header for ease of navigation.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(system)> caption <template>`

Arguments

| Argument | Value | Description |
|----------|--------------|---|
| template | default | Combination of Brand and Model (for example, Keenetic Speedster). |
| | product | The Model name (for example, Speedster). |
| | description | The System description (for example, Speedster (KN-3010)). |
| | hwid | The Model identifier (for example, KN-3010). |
| | hostname | The System name (for example, Keenetic-Speedster). |
| | ndns-domain | The KeenDNS name (for example, mywork.keenetic.name). |
| | default-ssid | The Default Wi-Fi name (for example, Keenetic-8665). |

Example (system)> **caption product**
Core::System::Caption: Template set to product.

History

| Version | Description |
|---------|--|
| 3.08 | The system caption command has been introduced. |

3.157.3 system clock date

Description Adjust system date and time.

Prefix no No

Change settings Yes

Multiple input No

Synopsis (system)> **clock date** *<date-and-time>*

Arguments

| Argument | Value | Description |
|---------------|---------------|--|
| date-and-time | <i>String</i> | Current date and time in DD MM YYYY HH:MM:SS format. |

Example (system)> **clock date 18 07 2012 09:52:33**
System date and time has been changed.

History

| Version | Description |
|---------|---|
| 2.00 | The system clock date command has been introduced. |

3.157.4 system clock timezone

Description Set the system timezone.
Command with **no** prefix resets timezone to default (GMT).

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis (system)> **clock timezone** *<locality>*
(system)> **no clock timezone** *<locality>*

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| locality | <i>String</i> | Name of the city, indicating the time zone. |

Example

```
(system)> clock timezone Dublin
the system timezone is set to "Dublin".
```

History

| Version | Description |
|---------|---|
| 2.00 | The system clock timezone command has been introduced. |

3.157.5 system configuration factory-reset

Description

Reset configuration to the factory settings for all modes.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> configuration factory-reset
```

Example

```
(system)> configuration factory-reset
Core::Configuration: the system configuration reset to factory ►
defaults.
```

History

| Version | Description |
|---------|--|
| 2.00 | The system configuration factory-reset command has been introduced. |

3.157.6 system configuration fail-safe commit

Description

Commit all unsaved changes and stop the timer.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(system)> configuration fail-safe commit
```

Example

```
(system)> configuration fail-safe commit
Core::System::Mtd::ConfigStorage: Committed fail-safe ►
configuration changes.
```

| History | Version | Description |
|---------|---------|---|
| | 3.08 | The system configuration fail-safe commit command has been introduced. |

3.157.7 system configuration fail-safe keep-alive

Description Silently restart the fail-safe timer.

If the fail-safe mode is inactive or there are no configuration changes the command does nothing.

Prefix no No

Change settings No

Multiple input No

Synopsis `(system)> configuration fail-safe keep-alive`

Example `(system)> configuration fail-safe keep-alive`

| History | Version | Description |
|---------|---------|---|
| | 3.08 | The system configuration fail-safe keep-alive command has been introduced. |

3.157.8 system configuration fail-safe rollback

Description Rollback all unsaved changes and reboot the system. The system brings to a special rollback state while rebooting. In this state commit and timer reconfiguration actions are blocked, except timer disable.

If there are no configuration changes the command does nothing.

Prefix no No

Change settings No

Multiple input No

Synopsis `(system)> configuration fail-safe rollback`

Example `(system)> configuration fail-safe rollback`
 Core::System::Mtd::ConfigStorage: Ignored a fail-safe rollback: ►
 no pending changes.

History

| Version | Description |
|---------|---|
| 3.08 | The system configuration fail-safe rollback command has been introduced. |

3.157.9 system configuration fail-safe timer**Description**

Setup or cancel the fail-safe timer. The command configures (or reconfigures) a timer state that is permanent between reboots — it does not require explicit configuration saving. Implemented for the router mode only.

Command with **no** prefix disables the setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> configuration fail-safe timer <action> <interval>
```

```
(system)> no configuration fail-safe timer
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| action | reboot | Action when the timer expires. |
| interval | <i>Integer</i> | Timer value in the range from 60 to 86400 seconds. |

Example

```
(system)> configuration fail-safe timer reboot 60  
Core::System::Mtd::ConfigStorage: Enabled a 60-second fail-safe ►  
"reboot" timer.
```

```
(system)> no configuration fail-safe timer  
Core::System::Mtd::ConfigStorage: Turned off the fail-safe mode.
```

History

| Version | Description |
|---------|--|
| 3.08 | The system configuration fail-safe timer command has been introduced. |

3.157.10 system configuration save**Description**

Save the system configuration asynchronously.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis | (system)> **configuration save**

Example (system)> **configuration save**
Saving configuration.

| Version | Description |
|----------|---|
| 2.05.B.1 | The system configuration save command has been introduced. |

3.157.11 system country

Description Select a country from the list of countries available in the factory region. The selected country is permanently stored in the persistent storage and does not require configuration save commands.

The country setting affects all system modes.

Command with **no** prefix resets the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (system)> **country** *<country>*

| Argument | Value | Description |
|----------|---------------|--|
| country | <i>String</i> | The country code from ISO 3166-1 alpha-2 ⁷ . |

Example (system)> **country EN**
Core::System::Country: Set the system country code to "EN".

(system)> **no country**
Core::System::Country: Reset the system country code.

| Version | Description |
|---------|--|
| 4.00 | The system country command has been introduced. |

3.157.12 system debug

Description Enable system debug. By default, setting is disabled.

Command with **no** prefix disables the feature.

⁷ https://en.wikipedia.org/wiki/ISO_3166-1_alpha-2

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(system)> debug
```

```
(system)> no debug
```

Example

```
(system)> debug
Core::Debug: System debug enabled.
```

| Version | Description |
|---------|--|
| 2.03 | The system debug command has been introduced. |

3.157.13 system description

Description Set the system description as an arbitrary string. By default, description Carrier (KN-1711) is used.

Command with **no** prefix resets description to default.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(system)> description <description>
```

```
(system)> no description
```

| Argument | Value | Description |
|-------------|---------------|--|
| description | <i>String</i> | System description no longer than 256 bytes. |

Example

```
(system)> description DEVICE
Core::System::Info: Description saved.
```

```
(config)> show version
...
  manufacturer: Keenetic Ltd.
  vendor: Keenetic
  series: KN
  model: Ultra (KN-1810)
  hw_version: 10188000
  hw_id: KN-1810
  device: Ultra
```



```

class: Internet Center
region: RU
description: DEVICE

```

```

(config)> show running-config
...
set vm.swappiness 60
set vm.overcommit_memory 0
set vm.vfs_cache_pressure 1000
set dev.usb.force_usb2 0
domainname WORKGROUP
hostname Keenetic_Ultra
description DEVICE
...

```

```

(system)> no description
Core::System::Info: Description reset to default.

```

```

(config)> show version
...
manufacturer: Keenetic Ltd.
vendor: Keenetic
series: KN
model: Ultra (KN-1810)
hw_version: 10188000
hw_id: KN-1810
device: Ultra
class: Internet Center
region: RU
description: Keenetic Ultra (KN-1810)

```

History

| Version | Description |
|---------|--|
| 2.15 | The system description command has been introduced. |

3.157.14 system domainname

Description Assign domain name for the system.
Command with **no** prefix removes domain name.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```

(system)> domainname <domain>
(system)> no domainname

```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| domain | <i>String</i> | The domain name to assign. |

Example

```
(system)> domainname keenetic
Domainname saved.
```

History

| Version | Description |
|---------|---|
| 2.00 | The system domainname command has been introduced. |

3.157.15 system eject

Description

Stop and eject SCSI/SATA USB-drive. To display all media drive names, use [show media](#) command.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(system)> eject <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------------|
| name | <i>String</i> | Name of media drive to eject. |

Example

```
(system)> eject Media0
Storage::Manager: Started "Media0" eject.
```

History

| Version | Description |
|---------|--|
| 3.04 | The system eject command has been introduced. |

3.157.16 system hostname

Description

Set the host name. Host name used to identify a node in the network. It is required to enable some of the built-in services, such as CIFS.

Command with **no** prefix sets the default value, which depends on the model name.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> hostname <hostname>
```

```
(system)> no hostname
```

| Argument | Value | Description |
|----------|---------------|-------------------|
| hostname | <i>String</i> | Name of the host. |

Example

```
(system)> hostname KN1010  
Core::System::Hostname: The host name set.
```

```
(system)> no hostname  
Core::System::Hostname: The host name reset.
```

| Version | Description |
|---------|---|
| 2.00 | The system hostname command has been introduced. |

3.157.17 system led

Description Configure general purpose LEDs. By default, LED FN shows the status of device connected to USB.

Command with **no** prefix resets the setting to default.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(system)> led <led> indicate <control>
```

```
(system)> no led [ <led> [ indicate ] ]
```

| Argument | Value | Description |
|----------|------------------|--|
| led | FN | LED name. |
| control | UpdatesAvailable | LED notifies you the updates for your device are available. |
| | BackupWan | LED shows that backup connection is active at the moment. |
| | SelectedWan | LED shows status of the interface defined with interface led wan command. |
| | SelectedSchedule | LED shows status of scheduled event assigned with schedule led command. |

| Argument | Value | Description |
|----------|-----------------------|--|
| | OpkgLedControl | LED shows status of <i>opkg</i> . |
| | UsbPortDeviceAttached | LED shows status of device connected to USB. |
| indicate | <i>Keyword</i> | Turn off the indicator completely. |

Example

```
(system)> led FN indicate SelectedWan
Peripheral::Manager: "SelectedWan" control bound to "FN" LED.
```

```
(system)> no led FN indicate
Peripheral::Manager: "FN" LED control binding removed.
```

History

| Version | Description |
|---------|--|
| 2.08 | The system led command has been introduced. |

3.157.18 system led power schedule

Description

Assign a schedule for the LEDs on the device. Schedule must be created and customized with [schedule action](#) command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> led power schedule <schedule>
```

```
(system)> no led power schedule
```

Arguments

| Argument | Value | Description |
|----------|-----------------|--|
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(system)> led power schedule schedule1
Core::Peripheral::Manager: Set LED power schedule "schedule1".
```

```
(system)> no led power schedule
Core::Peripheral::Manager: Clear LED power schedule.
```

History

| Version | Description |
|---------|---|
| 3.06 | The system led power schedule command has been introduced. |

3.157.19 system led power shutdown

Description Shutdown the LEDs on the device.
Command with **no** prefix turns LEDs on.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(system)> led power shutdown <mode>
(system)> no led power shutdown
```

Arguments

| Argument | Value | Description |
|----------|-------|---------------------------------------|
| mode | all | Shutdown all the LEDs. |
| | front | Shutdown the LEDs on the front panel. |
| | back | Shutdown the LEDs on the back panel. |

Example

```
(system)> led power shutdown all
Core::Peripheral::Manager: Set LED shutdown mode to "all".
```

```
(system)> no led power shutdown
Core::Peripheral::Manager: Set LED shutdown mode to "none".
```

History

| Version | Description |
|---------|---|
| 3.06 | The system led power shutdown command has been introduced. Previous command name is system led shutdown . |

3.157.20 system log clear

Description Clear the system log.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(system)> log clear
```

Example

```
(system)> log clear
Syslog: the system log has been cleared.
```

History

| Version | Description |
|---------|--|
| 2.00 | The system log clear command has been introduced. |

3.157.21 system log reduction

Description Enable repeated message reduction. By default, the setting is enabled.
Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(system)> log reduction
(system)> no log reduction
```

Example

```
(system)> log reduction
(system)> no log reduction
```

History

| Version | Description |
|---------|--|
| 2.04 | The system log reduction command has been introduced. |

3.157.22 system log server

Description Add remote log server.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(system)> log server <address> [: <port>]
(system)> no log server [ <address> [: <port>] ]
```

Arguments

| Argument | Value | Description |
|----------|-------------------|----------------------------|
| address | <i>IP address</i> | Remote log server address. |
| port | <i>Integer</i> | Remote log server port. |

Example (system)> **log server 192.168.1.1:8080**
Syslog: server 192.168.1.1:8080 added.

| Version | Description |
|---------|---|
| 2.00 | The system log server command has been introduced. |

3.157.23 system log suppress

Description Add message suppression rule.
Command with **no** prefix removes the rule.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(system)> log suppress <ident>
(system)> no log suppress [ <ident> ]
```

| Argument | Value | Description |
|----------|--------|---|
| ident | String | Process ID which messages need to suppress. |

Example (system)> **log suppress kernel**
Core::Syslog: Added suppression "kernel".

```
(system)> no log suppress kernel
Core::Syslog: Deleted suppression "kernel".
```

```
(system)> log suppress transmissiond
Core::Syslog: Added suppression "transmissiond".
```

```
(system)> no log suppress transmissiond
Core::Syslog: Deleted suppression "transmissiond".
```

| Version | Description |
|---------|---|
| 2.04 | The system log suppress command has been introduced. |

3.157.24 system mode

Description Select system operating mode for Carrier.

Prefix no No

Change settings Yes

Multiple input No**Synopsis** `(system)> mode <mode>`**Arguments**

| Argument | Value | Description |
|----------|----------|--|
| mode | router | Main mode. |
| | client | Network adapter mode to connect Ethernet devices to Wi-Fi network. |
| | repeater | Repeater mode to extend Wi-Fi network using a wireless connection. |
| | ap | Access point mode to extend Wi-Fi network using a wired Ethernet connection. |

Example

```
(system)> mode repeater
Core::Mode: The system switched to "repeater" mode, reboot the ►
device to apply the settings.
```

History

| Version | Description |
|---------|---|
| 2.05 | The system mode command has been introduced. |

3.157.25 system mount

Description Mount USB-drive. To display all mounted drives use [show usb](#) command. Command with **no** prefix unmount the drive.

Prefix no Yes**Change settings** No**Multiple input** No**Synopsis** `(system)> mount <filesystem>``(system)> no mount <filesystem>`**Arguments**

| Argument | Value | Description |
|------------|---------------|--------------------------------------|
| filesystem | <i>String</i> | Name of filesystem to mount/unmount. |

Example

```
(system)> mount 9430B54530B52EDC:
Filesystem mounted
```

History

| Version | Description |
|---------|--|
| 2.00 | The system mount command has been introduced. |

3.157.26 system ndss dump-report disable

Description Disable product improvement program. By default, setting is enabled.
Command with **no** prefix enables the program.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(system)> ndss dump-report disable
(system)> no ndss dump-report disable
```

Example

```
(system)> ndss dump-report disable
Core::Ndss: Dump-reporting disabled.
```

```
(system)> no ndss dump-report disable
Core::Ndss: Dump-reporting enabled.
```

History

| Version | Description |
|---------|--|
| 3.05 | The system ndss dump-report disable command has been introduced. Previous command name is system dump-report disable . |

3.157.27 system reboot

Description Reboot the system. If the parameter is set, reboot is executed after a timeout, in seconds. If the timer is already set, using of the command replaces the old value of the timer to the new one.

Using a scheduled reboot is convenient in the case when the device is under remote control, and the user doesn't understand the effect of the commands he/she is trying. The user can turn on a scheduled reboot for fear of losing control over the device. After reboot the system will return to its original state and become available.

Command with **no** prefix cancels reboot or removes the reboot on schedule.

Prefix no Yes

Change settings No

Multiple input No

Synopsis

```
(system)> reboot [ <interval> | schedule <schedule> ]
(system)> no reboot [ schedule ]
```

Arguments

| Argument | Value | Description |
|----------|-----------------|--|
| interval | <i>Integer</i> | Timeout for reboot, in seconds. If not specified, the reboot will be executed immediately. |
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(system)> reboot 20
Core::System::RebootManager: Rebooting in 20 seconds.

(system)> no reboot
Core::System::RebootManager: Reboot cancelled.

(system)> reboot schedule rebootroute
Core::System::RebootManager: Set reboot schedule "rebootroute".

(system)> no reboot schedule
Core::System::RebootManager: Schedule disabled.
```

History

| Version | Description |
|---------|---|
| 2.00 | The system reboot command has been introduced. |
| 2.12 | The schedule argument has been added. |

3.157.28 system set

Description

Set the value of the specified system parameter and save it in the current settings.

Command with **no** prefix returns the default value to the specified parameter (before the first change).

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(system)> set <name> <value>
```

```
(system)> no set <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|-------------------------------------|
| name | <i>String</i> | Identifier of the system parameter. |
| value | <i>String</i> | New value of the system parameter. |

Example

```
(config)> system
(system)> set net.ipv4.ip_forward 1
```

```
(system)> set net.ipv4.tcp_fin_timeout 30
(system)> set net.ipv4.tcp_keepalive_time 120
(system)> set ►
net.ipv4.netfilter.ip_conntrack_tcp_timeout_established 1200
(system)> set net.ipv4.netfilter.ip_conntrack_udp_timeout 60
(system)> set net.ipv4.netfilter.ip_conntrack_max 4096
(system)> exit
(config)> show running-config
system
set net.ipv4.ip_forward 1
  set net.ipv4.tcp_fin_timeout 30
  set net.ipv4.tcp_keepalive_time 120
  set net.ipv4.netfilter.ip_conntrack_tcp_timeout_established ►
1200
  set net.ipv4.netfilter.ip_conntrack_udp_timeout 60
  set net.ipv4.netfilter.ip_conntrack_max 4096
!
...
(config)>
```

History

| Version | Description |
|---------|--|
| 2.00 | The system set command has been introduced. |

3.157.29 system swap

Description Configure swap area. If the file is not found, the command tries to create it.
Command with **no** prefix disables the swap.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis `(system)> swap (<area> | <area>) <size>`

`(system)> no swap`

Arguments

| Argument | Value | Description |
|----------|-----------------|--|
| area | <i>Filename</i> | Full path to the swap-file in <file system>:<path> format. |
| size | <i>Integer</i> | Swap-file size, in Kbytes. |

Example `(system)> swap OPKG:/swap/swapfile 2097152`
Storage::Swap::Manager: Swap is being initialized in background.

`(system)> no swap`
Storage::Swap::Manager: Swap area OPKG:/swap/swapfile disabled.

History

| Version | Description |
|---------|---|
| 2.00 | The system swap command has been introduced. |

3.157.30 system trace lock threshold

Description

Set a trace lock threshold for the system threads. If the threshold value is exceeded, information about this thread (for example, SCGI session) is saved in the system log. By default, setting is disabled.

Command with **no** prefix disables the trace lock threshold feature.

Prefix no

Yes

Change settings

No

Multiple input

No

Synopsis

```
(system)> system trace lock threshold <threshold>
```

```
(system)> no system trace lock threshold
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---|
| threshold | <i>String</i> | Threshold value in milliseconds. Can take values in the range from 100 to 1000000000 inclusively. The threshold value is not saved into startup-config. |

Example

```
(system)> system trace lock threshold 100
Lockable: Set threshold to 100 ms.
```

```
(system)> no trace lock threshold
Lockable: Reset threshold.
```

History

| Version | Description |
|---------|---|
| 3.03 | The system trace lock threshold command has been introduced. |

3.157.31 system usb power schedule

Description

Assign a schedule for the USB port. Schedule must be created and customized with **schedule action** command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no

Yes

Change settings

Yes

Multiple input No

Synopsis

```
(system)> usb <port> power schedule <schedule>
```

```
(system)> no usb <port> power schedule <schedule>
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---|
| port | 1 | USB port 1. |
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(system)> usb 1 power schedule schedule0  

Usb::Manager: Port "1" schedule "schedule0" assigned.
```

```
(system)> no usb 1 power schedule  

Usb::Manager: Port "1" schedule unassigned.
```

History

| Version | Description |
|---------|---|
| 4.00 | The system usb power schedule command has been introduced. |

3.157.32 system usb power shutdown

Description

Switch off the power on the USB port.

Command with **no** prefix turns the power on.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> port <port> power shutdown
```

```
(system)> no port <port> power shutdown
```

Arguments

| Argument | Value | Description |
|----------|-------|-------------|
| port | 1 | USB port 1. |

Example

```
(system)> usb 1 power shutdown  

Usb::Manager: Port "1" power is shutting down.
```

```
(system)> no usb 1 power shutdown  

Usb::Manager: Port "1" power is activated.
```

History

| Version | Description |
|---------|---|
| 4.00 | The system usb power shutdown command has been introduced. |

3.157.33 system zram

Description

Configure zRam swap file. If you use no argument, size of zRam file will be set automatically.

Command with **no** prefix removes zRam file.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> zram [ <size> ]
```

```
(system)> no zram
```

Arguments

| Argument | Value | Description |
|----------|----------------|-------------------------------|
| size | <i>Integer</i> | Size of zRam file, in Kbytes. |

Example

```
(system)> zram
Zram::Manager: Enabled zram swap of size 262144Kb.
```

```
(system)> no zram
Zram::Manager: Zram swap disabled.
```

History

| Version | Description |
|---------|---|
| 2.09 | The system zram command has been introduced. |

3.158 tools

Description

Access to a group of commands to test the environment.

Prefix no

No

Change settings

No

Multiple input

No

Group entry

(tools)

Synopsis

```
(config)> tools
```

| History | Version | Description |
|---------|---------|---|
| | 2.00 | The tools command has been introduced. |

3.158.1 tools arping

Description Command action is analogous to **tools ping** command, but operates at the link layer of the OSI model using the **ARP** protocol.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(tools)> arping <address> source-interface <source-interface> [ count
<count> ] [ wait-time <wait-time> ]
```

| Arguments | Argument | Value | Description |
|-----------|------------------|-------------------|---|
| | address | <i>IP address</i> | IP address of the respondent. |
| | source-interface | <i>Interface</i> | Name of source-interface. |
| | count | <i>Integer</i> | Quantity of requests. If not specified, the command will run until interrupted by the user. |
| | wait-time | <i>Integer</i> | The maximum response time, in milliseconds. |

Example

```
(tools)> arping 192.168.15.51 source-interface Home count 4 ►
wait-time 3000
Starting the ARP ping to "192.168.15.51"...
ARPING 192.168.15.51 from 192.168.15.1 br0.
Unicast reply from 192.168.15.51 [9c:b7:0d:ce:51:6a] 1.884 ms.
Unicast reply from 192.168.15.51 [9c:b7:0d:ce:51:6a] 1.831 ms.
Sent 4 probes, received 2 responses.
Process terminated.
```

| History | Version | Description |
|---------|---------|--|
| | 2.00 | The tools arping command has been introduced. |

3.158.2 tools ping

Description Send Echo-Request requests of ICMP protocol to specified network node and register received Echo Reply responses. The time between sending request and receiving the response Round Trip Time (RTT) allows you to define double ended delays on the route and frequency of packet losses, that is, indirectly

determine loading on the channels of data transmission and intermediate devices.

Total absence of ICMP Replies can also mean that the remote node (or any of the intermediate routers) blocks ICMP Echo Reply or ignores ICMP Echo Request.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(tools)> ping <host> [ count <count> ] [ size <packetsize> ] [ sequence-id <sequence-id> ] [ source ( <source-interface> | <source-address> ) ] [ tos <tos> ] [ ttl <ttl> ]
```

Arguments

| Argument | Value | Description |
|-------------|------------------|--|
| host | <i>String</i> | Domain name or host IP address. |
| count | <i>Integer</i> | Quantity of ICMP Echo Requests. If not specified, the command will run until interrupted by the user. |
| packetsize | <i>Integer</i> | Size of the ICMP Echo Request data field in bytes. By default, 56 value is used. Can take values in the range from 28 to 65535 inclusively. |
| sequence-id | <i>Integer</i> | Sequence number to aid in matching Echo Request and Echo Reply. By default, 0 value is used. Can take values in the range from 0 to 65535 inclusively. |
| source | source-address | Address of the outgoing interface. |
| | source-interface | Interface to be used as the source interface in outgoing probe packets. |
| tos | <i>Integer</i> | Type Of Service. By default, 0 value is used. Can take values in the range from 0 to 63 inclusively. |
| ttl | <i>Integer</i> | Maximum number of hops (max time-to-live value) traceroute will probe. By default, 30 value is used. Can take values in the range from 1 to 255 inclusively. |

Example

```
(tools)> ping 8.8.8.8 count 5 size 100
Sending ICMP ECHO request to 192.168.1.33
PING 192.168.1.33 (192.168.1.33) 72 (100) bytes of data.
100 bytes from 192.168.1.33: icmp_req=1, ttl=128, time=2.35 ms.
100 bytes from 192.168.1.33: icmp_req=2, ttl=128, time=1.07 ms.
100 bytes from 192.168.1.33: icmp_req=3, ttl=128, time=1.06 ms.
```



```

--- 192.168.1.33 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss,
0 duplicate(s), time 2002.65 ms.
Round-trip min/avg/max = 1.06/1.49/2.35 ms.
Process terminated.

```

```

(tools)> ping 8.8.8.8 source Wireguard1
sending ICMP ECHO request to 8.8.8.8...
PING 8.8.8.8 (8.8.8.8) 72 (100) bytes of data.
96 bytes from 8.8.8.8: icmp_req=1, ttl=108, time=17.58 ms. ▶
(truncated).
96 bytes from 8.8.8.8: icmp_req=2, ttl=108, time=17.62 ms. ▶
(truncated).
96 bytes from 8.8.8.8: icmp_req=3, ttl=108, time=17.29 ms. ▶
(truncated).
96 bytes from 8.8.8.8: icmp_req=4, ttl=108, time=17.17 ms. ▶
(truncated).
96 bytes from 8.8.8.8: icmp_req=5, ttl=108, time=17.41 ms. ▶
(truncated).
--- 8.8.8.8 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss,
0 duplicate(s), time 4019.72 ms.
Round-trip min/avg/max = 17.17/17.41/17.62 ms.

```

History

| Version | Description |
|---------|---|
| 2.00 | The tools ping command has been introduced. |
| 4.01 | New values address and interface were added to the source argument. |

3.158.3 tools ping6

Description

Send Echo-Request requests of ICMPv6 protocol to specified network node and register received Echo Reply responses. The time between sending request and receiving the response Round Trip Time (RTT) allows you to define double ended delays on the route and frequency of packet losses, that is, indirectly determine loading on the channels of data transmission and intermediate devices.

Total absence of ICMP Replies can also mean that the remote node (or any of the intermediate routers) blocks ICMP Echo Reply or ignores ICMP Echo Request.

| | |
|------------------------|----|
| Prefix no | No |
| Change settings | No |
| Multiple input | No |

Synopsis

```
(tools)> ping6 <host> [ count <count> ] [ size <packetsize> ] [ sequence-id
<sequence-id> ] [ source ( <source-interface> | <source-address> ) ] [ tos
<tos> ] [ ttl <ttl> ]
```

Arguments

| Argument | Value | Description |
|-------------|------------------|--|
| host | <i>String</i> | Domain name or host IPv6-address. |
| count | <i>Integer</i> | Quantity of ICMPv6 Echo Requests. If not specified, the command will run until interrupted by the user. |
| packetsize | <i>Integer</i> | Size of the ICMPv6 Echo Request data field in bytes. By default, 56 value is used. Can take values in the range from 28 to 65535 inclusively. |
| sequence-id | <i>Integer</i> | Sequence number to aid in matching Echo Request and Echo Reply. By default, 0 value is used. Can take values in the range from 0 to 65535 inclusively. |
| source | source-address | Address of the outgoing interface. |
| | source-interface | Interface to be used as the source interface in outgoing probe packets. |
| tos | <i>Integer</i> | Type Of Service. By default, 0 value is used. Can take values in the range from 0 to 63 inclusively. |
| ttl | <i>Integer</i> | Maximum number of hops (max time-to-live value) traceroute will probe. By default, 30 value is used. Can take values in the range from 1 to 255 inclusively. |

Example

```
(tools)> ping6 2001:4860:4860::8888 count 5 size 111
sending ICMPv6 ECHO request to 2001:4860:4860::8888...
PING 2001:4860:4860::8888 (2001:4860:4860::8888) 63 (111) bytes ▶
of data.
71 bytes from 2001:4860:4860::8888: icmp_req=1, ttl=108, ▶
time=19.84 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=2, ttl=108, ▶
time=19.73 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=3, ttl=108, ▶
time=19.96 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=4, ttl=108, ▶
time=19.86 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=5, ttl=108, ▶
time=19.76 ms.
--- 2001:4860:4860::8888 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss,
0 duplicate(s), time 4021.21 ms.
Round-trip min/avg/max = 19.73/19.83/19.96 ms.
```

```
(tools)> ping6 2001:4860:4860::8888 source ISP
sending ICMPv6 ECHO request to 2001:4860:4860::8888...
PING 2001:4860:4860::8888 (2001:4860:4860::8888) from eth3: 56 ►
(104) bytes of data.
64 bytes from 2001:4860:4860::8888: icmp_req=1, ttl=108, ►
time=19.90 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=2, ttl=108, ►
time=19.75 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=3, ttl=108, ►
time=19.64 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=4, ttl=108, ►
time=19.66 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=5, ttl=108, ►
time=19.88 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=6, ttl=108, ►
time=19.72 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=7, ttl=108, ►
time=19.71 ms.
--- 2001:4860:4860::8888 ping statistics ---
7 packets transmitted, 7 packets received, 0% packet loss,
0 duplicate(s), time 6221.53 ms.
Round-trip min/avg/max = 19.64/19.75/19.90 ms.
```

History

| Version | Description |
|---------|---|
| 2.00 | The tools ping6 command has been introduced. |
| 4.01 | New values address and interface were added to the source argument. |

3.158.4 tools traceroute

Description Show the route to a network host.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(tools)> traceroute <host> [count <count>] [interval <interval>]
[wait-time <wait-time>] [packet-size <packet-size>]
[max-ttl <max-ttl>] [port <port>] [source-address <source-address>]
[source-interface <source-interface>] [type <type>] [tos <tos>]
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| host | <i>String</i> | Name of the target host. |
| count | <i>Integer</i> | Number of probe packets per hop. Default value — 3. Value must be in the range [1;10]. |

| Argument | Value | Description |
|------------------|----------------|--|
| interval | <i>Integer</i> | Time in seconds between sending packets. Default value — 0. Value must be in the range [0;15]. |
| wait-time | <i>Integer</i> | Time to wait for a response to a probe (in seconds). Default value — 1. Value must be in the range [1;15]. |
| packet-size | <i>Integer</i> | Size of packet according to the protocol type. For tcp type default packet size is 52. Range of values [52]. For udp and icmp types default packet size is 60. Range of values [28;65535]. |
| max-ttl | <i>Integer</i> | Maximum number of hops (max time-to-live value) traceroute will probe. Default value — 30. Value must be in the range [1;255]. |
| port | <i>Integer</i> | Destination port. For tcp type default port is 80. For udp type default port is 33434. For icmp type default port is 1. |
| source-address | <i>String</i> | Address of the outgoing interface. |
| source-interface | <i>String</i> | Interface to be used as the source interface in outgoing probe packets. |
| type | tcp | <i>TCP</i> protocol. |
| | udp | <i>UDP</i> protocol. Used by default. |
| | icmp | <i>ICMP</i> protocol. |
| tos | <i>Integer</i> | Type Of Service. Default value — 0. Value must be in the range [0;255]. |

Example

```
(tools)> traceroute google.com count 5 interval 5
starting traceroute to google.com...
traceroute to google.com (64.233.161.113), 30 hops maximum, 60 ►
byte packets.
 1 192.168.233.1 (192.168.233.1) 2.742 ms 2.406 ms 2.460 ms ►
 2.191 ms 2.957 ms
 2 10.77.140.1 (10.77.140.1) 3.301 ms 3.847 ms 3.839 ms
process terminated
```

History

| Version | Description |
|---------|--|
| 2.00 | The tools traceroute command has been introduced. |

3.159 torrent

Description Access to a group of commands to configure BitTorrent parameters.

Prefix no No

Change settings No

Multiple input No

Group entry (config-torrent)

Synopsis (config)> **torrent**

| History | Version | Description |
|---------|---------|---|
| | 2.00 | The torrent command has been introduced. |

3.159.1 torrent directory

Description Specify a folder for downloads. If the folder is not found, the command tries to create it.

Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis (config-torrent)> **directory** *<directory>*

(config-torrent)> **no directory**

| Arguments | Argument | Value | Description |
|-----------|-----------|---------------|---|
| | directory | <i>String</i> | Path to the folder with filesystem defining. Filesystems — temp:, system:, flash:, sys:, proc:, usb:. |

Example (config-torrent)> **directory** ►
46E243F4E243E6B1:/components/transmission/

(config-torrent)> **no directory**

| History | Version | Description |
|---------|---------|---|
| | 2.00 | The torrent directory command has been introduced. |

3.159.2 torrent peer-port

Description Set peer port. By default, 51413 value is used.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(config-torrent)> peer-port <port>`

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| port | <i>Integer</i> | Incoming <i>TCP</i> listen port. Can take values in the range from 1024 to 65535. |

Example

```
(config-torrent)> peer-port 11122
Torrent::Client: Peer port changed to 11122.
```

History

| Version | Description |
|---------|---|
| 2.00 | The torrent peer-port command has been introduced. |

3.159.3 torrent policy

Description Define the IP Policy for BitTorrent client.

Command with **no** prefix removes the defined IP Policy profile for BitTorrent client.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis `(config-torrent)> policy <policy>`

`(config-torrent)> no policy`

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| policy | <i>Policy</i> | Name of IP Policy profile. |

Example

```
(config-torrent)> policy PolicyNaN
Torrent::Client: Policy PolicyNaN applied.
```

```
(config-torrent)> no policy
Torrent::Client: Policy cleared.
```

| History | Version | Description |
|---------|---------|--|
| | 3.01 | The torrent policy command has been introduced. |

3.159.4 torrent reset

Description Reset settings of BitTorrent client.

Prefix no No

Change settings No

Multiple input No

Synopsis | (config-torrent)> **reset**

Example (config-torrent)> **reset**
Torrent::Client: Reset performed.

| History | Version | Description |
|---------|---------|---|
| | 2.10 | The torrent reset command has been introduced. |

3.159.5 torrent rpc-port

Description Set *RPC* port. By default, 8090 value is used.

Prefix no No

Change settings Yes

Multiple input No

Synopsis | (config-torrent)> **rpc-port** *<port>* [**public**]

| Arguments | Argument | Value | Description |
|-----------|----------|----------------|--|
| | port | <i>Integer</i> | Webadmin listen port. Can take values in the range from 1024 to 65535. |
| | public | <i>Keyword</i> | Access to BitTorrent client managing by public interfaces. |

Example (config-torrent)> **rpc-port 9945**
Torrent::Client: RPC port changed to 9945 (private).

(config-torrent)> **rpc-port 9945 public**
Torrent::Client: RPC port changed to 9945 (public).

History

| Version | Description |
|---------|--|
| 2.00 | The torrent rpc-port command has been introduced. |

3.160 udpxy

Description Access to a group of commands to configure *udpxy* parameters.

Prefix no No

Change settings No

Multiple input No

Group entry (udpxy)

Synopsis | (config)> **udpxy**

History

| Version | Description |
|---------|---|
| 2.03 | The udpxy command has been introduced. |

3.160.1 udpxy buffer-size

Description Set *udpxy* buffer size. By default, 2048 value is used.

Command with **no** prefix resets buffer size to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (udpxy)> **buffer-size** <size>

| (udpxy)> **no buffer-size**

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| size | <i>Integer</i> | Buffer size in bytes. Can take values in the range from 1 to 1048576. |

Example

```
(udpxy)> buffer-size 500
Udpxy::Manager: a buffer size set to 500 bytes.
```

History

| Version | Description |
|---------|---|
| 2.04 | The udpxy buffer-size command has been introduced. |

3.160.2 udpxy buffer-timeout

Description Set *udpxy* timeout to hold data in the buffer. By default, 1 value is used.

Command with **no** prefix resets timeout to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> buffer-timeout <timeout>
```

```
(udpxy)> no buffer-timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| timeout | <i>Integer</i> | Timeout value in seconds. Can take values in the range from -1 to 60. -1 — unlimited timeout. |

Example

```
(udpxy)> buffer-timeout 10
```

```
Udpxy::Manager: a hold data timeout set to 10 sec.
```

History

| Version | Description |
|---------|--|
| 2.04 | The udpxy buffer-timeout command has been introduced. |

3.160.3 udpxy interface

Description Bind *udpxy* to the specified interface. By default, current default gateway is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> interface <interface>
```

```
(udpxy)> no interface
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(udpxy)> interface [Tab]

Usage template:
  interface {interface}

Choose:
  GigabitEthernet1
  ISP
  WifiMaster0/AccessPoint2
  WifiMaster1/AccessPoint1
  WifiMaster0/AccessPoint3
  WifiMaster0/AccessPoint0
  AccessPoint
```

```
(udpxy)> interface ISP
Udpxy::Manager: bound to FastEthernet0/Vlan2.
```

History

| Version | Description |
|---------|---|
| 2.02 | The udpxy interface command has been introduced. |

3.160.4 udpxy port

Description

Specify port for HTTP requests. By default, 4022 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(udpxy)> port <port>
```

```
(udpxy)> no port
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| port | <i>Integer</i> | Port number. Can take values in the range from 0 to 65535. |

Example

```
(udpxy)> port 2323
Udpxy::Manager: a port set to 2323.
```

| History | Version | Description |
|---------|---------|--|
| | 2.03 | The udpxy port command has been introduced. |

3.160.5 udpxy renew-interval

Description Set renew interval of subscription to the multicast channel. By default, 0 value is used, i.e. the subscription is not renewed.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> renew-interval <renew-interval>
```

```
(udpxy)> no renew-interval
```

| Arguments | Argument | Value | Description |
|-----------|----------------|----------------|---|
| | renew-interval | <i>Integer</i> | Renew interval of subscription in seconds. Can take values in the range from 0 to 3600. |

Example

```
(udpxy)> renew-interval 120
```

Udpxy::Manager: a renew subscription interval value set to 120 ► sec.

| History | Version | Description |
|---------|---------|--|
| | 2.03 | The udpxy renew-interval command has been introduced. |

3.160.6 udpxy timeout

Description Set connection timeout. By default, 5 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> timeout <timeout>
```

```
(udpxy)> no timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | Timeout in seconds. Can take values in the range from 5 to 60. |

Example

```
(udpxy)> timeout 10
Udpxy::Manager: a stream timeout set to 10 sec.
```

History

| Version | Description |
|---------|---|
| 2.03 | The udpxy timeout command has been introduced. |

3.161 upnp forward

Description

Add [UPnP](#) forwarding rule.

Command with **no** prefix removes rule from the list.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config)> upnp forward <protocol> [ interface ] <address> <port>
```

```
(config)> no upnp forward [ <index> | ( <protocol> <address> <port> ) ]
```

Arguments

| Argument | Value | Description |
|-----------|-------------------|--|
| protocol | tcp | Rule for TCP protocol will be added/deleted. |
| | udp | Rule for UDP protocol will be added/deleted. |
| interface | <i>Interface</i> | Rule for specified interface name will be added. |
| address | <i>IP address</i> | Rule for specified IP address will be added/deleted. |
| port | <i>Integer</i> | Rule for specified port will be added/deleted. |
| index | <i>Integer</i> | Rule with specified number in the list will be removed. |

History

| Version | Description |
|---------|--|
| 2.00 | The upnp forward command has been introduced. |

3.162 upnp lan

Description Set LAN interface where the *UPnP* service is running. The service works for one network segment only.

Command with **no** prefix removes setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> upnp lan <interface>
(config)> no upnp lan
```

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example

```
(config)> upnp lan [Tab]

Usage template:
    lan {interface}

Choose:
    GigabitEthernet1
    ISP
    WifiMaster0/AccessPoint2
    WifiMaster1/AccessPoint1
    WifiMaster0/AccessPoint3
    WifiMaster0/AccessPoint0
    AccessPoint
    WifiMaster1/AccessPoint2
    WifiMaster0/AccessPoint1
    GuestWiFi
```

```
(config)> upnp lan PPTP0
using LAN interface: PPTP0.
```

History

| Version | Description |
|---------|--|
| 2.00 | The upnp lan command has been introduced. |

3.163 upnp redirect

Description Add *UPnP* port translation rule.

Command with **no** prefix removes rule from the list. If you use no arguments, the entire list of rules will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> upnp redirect <protocol> <interface> <port> <to-address> [
to-port ]

(config)> no upnp redirect [and forward | [ <index> | ( <protocol> <port> )
]]
```

Arguments

| Argument | Value | Description |
|-------------|-------------------|--|
| protocol | tcp | Rule for <i>TCP</i> protocol will be added/deleted. |
| | udp | Rule for <i>UDP</i> protocol will be added/deleted. |
| interface | <i>Interface</i> | Rule for specified interface name will be added. |
| port | <i>Integer</i> | Rule for specified port will be added/deleted. |
| to-address | <i>IP address</i> | Rule for specified destination address will be added. |
| to-port | <i>Integer</i> | Rule for specified destination port will be added. |
| and forward | <i>Keyword</i> | Lists of forwarding and redirecting rules will be cleared. |
| index | <i>Integer</i> | Rule with specified number in the list will be removed. |

History

| Version | Description |
|---------|---|
| 2.00 | The upnp redirect command has been introduced. |

3.164 user

Description Access to a group of commands to configure user account parameters. If specified user is not found, the command tries to create it.

Note: Account with reserved name `admin` can not be removed. In addition, the `admin` user can not lose the access right to command line.

Command with **no** prefix removes user account.

Prefix no Yes
Change settings Yes
Multiple input Yes
Group entry (config-user)

Synopsis

```
(config)> user <name>
(config)> no user <name>
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------|
| name | <i>String</i> | The user name. |

History

| Version | Description |
|---------|--|
| 2.00 | The user command has been introduced. |

3.164.1 user home

Description Set home directory for user.
 Command with **no** prefix resets the setting.

Prefix no Yes
Change settings Yes
Multiple input No

Synopsis

```
(config-user)> home <directory>
(config-user)> no home
```

Arguments

| Argument | Value | Description |
|-----------|---------------|--|
| directory | <i>String</i> | Path to the home directory for FTP server, SFTP server and WeDAV server. |

Example

```
(config-user)> home files_ssd:/
Core::Authenticator: "test" user root directory set to ►
"files_ssd:/".
```

```
(config-user)> no home
(config-user)>
```

History

| Version | Description |
|---------|---|
| 3.04 | The user home command has been introduced. |

3.164.2 user password

Description

Set the user password. The password is stored as MD5-hash, computed from the "user:realm:password" string. *realm* is the device model name from startup-config.txt file.

The command takes open string or hash-function value as argument. Saved password is used for user authentication.

Command with **no** prefix removes the password so that the user can access to the device unauthenticated.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-user)> password ( md5 <hash> | <password> )
(config-user)> no password
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| hash | <i>String</i> | MD5-hash value. |
| password | <i>String</i> | Value of the password in open form, from which the hash value is calculated automatically. |

Example

```
(config-user)> password 1111
Core::Authenticator: Password set has been changed for user ►
"test".
```

History

| Version | Description |
|---------|---|
| 2.00 | The user password command has been introduced. |

3.164.3 user tag

Description

Assign a special tag to the user account, which presence is checked at the time of user authorization as well as performing any action in the system.

Set of permitted tag values depends on the system functionality. The full list is shown in the table below.

Several different tags can be assigned to one account by entering the command several times. Each tag can be viewed as granting or revoking certain permissions.

Command with **no** prefix removes the specified tag.

Note: The admin account can not be untagged `cli`.

The admin account can not be untagged `http` in Repeater mode.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-user)> tag <tag>
(config-user)> no tag [ <tag> ]
```

Arguments

| Argument | Value | Description |
|----------|--|--|
| tag | cli | Access to the command line (TELNET and SSH). |
| | readonly | Restrict commands that change the settings. |
| | http-proxy | Access to the HTTP proxy. |
| | http | Access to the Web-interface. |
| | afp | Access to USB drives via Apple File Protocol. |
| | printers | Access to USB printers via SMB/CIFS. |
| | cifs | Connection to the Windows files and printers service. |
| | vpn-dlna | Access to the DLNA for PPTP, L2TP/IPSec, SSTP tunnels. |
| | ftp | Connection to an integrated FTP server. |
| | ipsec-xauth | Connection to an integrated IPsec/XAuth server. |
| | ipsec-l2tp | Connection to an integrated L2TP/IPSec server. |
| | opt | Access to services managed by OptWare. |
| | sftp | Access to SFTP file server. |
| | sstp | Connection to an integrated SSTP server. |
| | torrent | Access to the BitTorrent client GUI. |
| vpn | Connection to an integrated PPTP server. | |

| Argument | Value | Description |
|----------|--------|-------------------------------|
| | webdav | Access to WebDAV file server. |

Example

```
(config-user)> tag cli  
Core::Authenticator: User "test" tagged with "cli".
```

```
(config-user)> tag readonly  
Core::Authenticator: User "test" tagged with "readonly".
```

```
(config-user)> tag http-proxy  
Core::Authenticator: User "test" tagged with "http-proxy".
```

```
(config-user)> tag http  
Core::Authenticator: User "test" tagged with "http".
```

```
(config-user)> tag afp  
Core::Authenticator: User "test" tagged with "afp".
```

```
(config-user)> tag printers  
Core::Authenticator: User "test" tagged with "printers".
```

```
(config-user)> tag cifs  
Core::Authenticator: User "test" tagged with "cifs".
```

```
(config-user)> tag vpn-dlna  
Core::Authenticator: User "test" tagged with "vpn-dlna".
```

```
(config-user)> tag ftp  
Core::Authenticator: User "test" tagged with "ftp".
```

```
(config-user)> tag ipsec-xauth  
Core::Authenticator: User "test" tagged with "ipsec-xauth".
```

```
(config-user)> tag ipsec-l2tp  
Core::Authenticator: User "test" tagged with "ipsec-l2tp".
```

```
(config-user)> tag opt  
Core::Authenticator: User "test" tagged with "opt".
```

```
(config-user)> tag sftp  
Core::Authenticator: User "test" tagged with "sftp".
```

```
(config-user)> tag sstp  
Core::Authenticator: User "test" tagged with "sstp".
```

```
(config-user)> tag torrent  
Core::Authenticator: User "test" tagged with "torrent".
```

```
(config-user)> tag vpn  
Core::Authenticator: User "test" tagged with "vpn".
```

```
(config-user)> tag webdav  
Core::Authenticator: User "test" tagged with "webdav".
```

```
(config-user)> no tag readonly
Core::Authenticator: User "test": "readonly" tag deleted.
```

History

| Version | Description |
|---------|--|
| 2.00 | The user tag command has been introduced. |
| 2.04 | The vpn tag has been added. |
| 2.06 | The opt , ipsec-xauth tags have been added. |
| 2.10 | The http-proxy tag has been added. |
| 2.11 | The ipsec-l2tp tag has been added. |
| 2.12 | The sstp tag has been added. |
| 3.04 | The vpn-dlna sftp and webdav tags have been added. |

3.165 ussd send

Description Send *USSD* request to the mobile operator.

Prefix no No

Change settings No

Multiple input No

Interface type Usb

Synopsis `(config)> ussd <interface> send <request>`

Arguments

| Argument | Value | Description |
|-----------|------------------|--|
| interface | <i>Interface</i> | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |
| request | <i>String</i> | USSD command. |

Example

```
(config)> ussd UsbQmi0 send *100#

request: *100#
response: Your number: +79953332211
         Available: 10 dol
         4.01 / 5 GB
```

History

| Version | Description |
|---------|---|
| 3.05 | The ussd send command has been introduced. |

3.166 vpn-server

Description Access to a group of commands to configure VPN server parameters.

Prefix no No

Change settings No

Multiple input No

Group entry (vpn-server)

Synopsis (config)> **vpn-server**

| Version | Description |
|---------|--|
| 2.04 | The vpn-server command has been introduced. |

3.166.1 vpn-server dhcp route

Description Assign a route which is transmitted in DHCP INFORM messages to the VPN server clients.

Command with **no** prefix cancels the specified route. If you use no arguments, the entire list of routes will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis (vpn-server)> **dhcp route** *<address>* *<mask>*

(vpn-server)> **no dhcp route** [*<address>* *<mask>*]

| Argument | Value | Description |
|----------|-------------------|--|
| address | <i>IP address</i> | Network client address. |
| mask | <i>IP-mask</i> | Network client mask. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24). |

Example (vpn-server)> **dhcp route 192.168.2.0/24**
VpnServer::Manager: Added DHCP INFORM route to ►
192.168.2.0/255.255.255.0.

(vpn-server)> **no dhcp route**
VpnServer::Manager: Cleared DHCP INFORM routes.

| History | Version | Description |
|---------|---------|---|
| | 2.12 | The vpn-server dhcp route command has been introduced. |

3.166.2 vpn-server interface

Description Bind VPN server to the specified interface.
Command with **no** prefix unbinds the interface.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> interface <interface>
(vpn-server)> no interface
```

| Arguments | Argument | Value | Description |
|-----------|-----------|-----------|--|
| | interface | Interface | Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command. |

Example (vpn-server)> **interface** [Tab]

```
Usage template:
  interface {interface}
```

```
Choose:
  GigabitEthernet1
  ISP
  WifiMaster0/AccessPoint2
  WifiMaster1/AccessPoint1
  WifiMaster0/AccessPoint3
  WifiMaster0/AccessPoint0
  AccessPoint
```

```
(vpn-server)> interface FastEthernet0/Vlan1
VpnServer::Manager: Bound to FastEthernet0/Vlan1
```

```
(vpn-server)> no interface
VpnServer::Manager: Reset interface binding.
```

| History | Version | Description |
|---------|---------|--|
| | 2.04 | The vpn-server interface command has been introduced. |

3.166.3 vpn-server ipv6cp

Description Enable IPv6 support. DHCP IPv6 pools are created for each VPN server. By default, the setting is disabled.

Command with **no** prefix disables IPv6 support.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> ipv6cp
(vpn-server)> no ipv6cp
```

Example

```
(vpn-server)> ipv6cp
VpnServer::Manager: IPv6 control protocol enabled.
```

```
(vpn-server)> no ipv6cp
VpnServer::Manager: IPv6 control protocol disabled.
```

History

| Version | Description |
|---------|---|
| 3.00 | The vpn-server ipv6cp command has been introduced. |

3.166.4 vpn-server lcp echo

Description Specify the testing rules of the PPTP connections with *LCP* echo tools.

Command with **no** prefix disables *LCP* echo.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> lcp echo <interval> <count> [adaptive]
(vpn-server)> no lcp echo
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| interval | <i>Integer</i> | Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply. |

| Argument | Value | Description |
|----------|----------------|---|
| count | <i>Integer</i> | The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated. |
| adaptive | <i>Keyword</i> | Pppd will send LCP echo-request frames only if no traffic was received from the peer since the last echo-request was sent. |

Example

```
(vpn-server)> lcp echo 5 3
LCP echo parameters updated.
```

History

| Version | Description |
|---------|---|
| 2.06 | The vpn-server lcp echo command has been introduced. |

3.166.5 vpn-server lockout-policy

Description

Set VPN server bruteforce detection parameters. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(vpn-server)> lockout-policy <threshold> [ <duration> [
<observation-window> ]]
```

```
(vpn-server)> no lockout-policy
```

Arguments

| Argument | Value | Description |
|--------------------|----------------|--|
| threshold | <i>Integer</i> | The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 2 to 20. |
| duration | <i>Integer</i> | An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 120. |
| observation-window | <i>Integer</i> | Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 20. |

Example

```
(vpn-server)> lockout-policy 10 30 2
VpnServer::Manager: Bruteforce detection is reconfigured.
```

```
(vpn-server)> no lockout-policy
VpnServer::Manager: Bruteforce detection is disabled.
```

```
(vpn-server)> lockout-policy 0
VpnServer::Manager: Bruteforce detection reset to default.
```

History

| Version | Description |
|---------|---|
| 3.01 | The vpn-server lockout-policy command has been introduced. |

3.166.6 vpn-server mppe

Description Set mode for *MPPE* encryption. 40-bit key is used by default.
Command with **no** prefix disables selected mode.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(vpn-server)> mppe <mode>
```

```
(vpn-server)> no mppe <mode>
```

Arguments

| Argument | Value | Description |
|----------|-------|---|
| mode | 40 | Length of the encryption key is 40 bits. |
| | 128 | Length of the encryption key is 128 bits. |

Example

```
(vpn-server)> mppe 40
VpnServer::Manager: Set encryption 40.
```

History

| Version | Description |
|---------|---|
| 2.05 | The vpn-server mppe command has been introduced. |

3.166.7 vpn-server mppe-optional

Description Allow connections without *MPPE* encryption. By default, the feature is enabled.
Command with **no** prefix deny unencrypted connections.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> mppe-optional
(vpn-server)> no mppe-optional
```

Example

```
(vpn-server)> mppe-optional
VpnServer::Manager: Unencrypted connections enabled.

(vpn-server)> no mppe-optional
VpnServer::Manager: Unencrypted connections disabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.04 | The vpn-server mppe-optional command has been introduced. |

3.166.8 vpn-server mru

Description Set *MRU* value to be transmitted to PPTP server. By default, 1350 value is used. Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> mru <value>
(vpn-server)> no mru
```

| Arguments | Argument | Value | Description |
|-----------|----------|---------|--|
| | value | Integer | <i>MRU</i> value. Can take values in the range from 128 to 1500 inclusively. |

Example

```
(vpn-server)> mru 200
VpnServer::Manager: mru set to 200.
```

| History | Version | Description |
|---------|---------|--|
| | 2.04 | The vpn-server mru command has been introduced. |

3.166.9 vpn-server mtu

Description Set *MTU* value to be transmitted to PPTP server. By default, 1350 value is used.
Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> mtu <value>
(vpn-server)> no mtu
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| value | <i>Integer</i> | <i>MTU</i> value. Can take values in the range from 128 to 1500 inclusively. |

Example

```
(vpn-server)> mtu 200
VpnServer::Manager: mtu set to 200.
```

History

| Version | Description |
|---------|--|
| 2.04 | The vpn-server mtu command has been introduced. |

3.166.10 vpn-server multi-login

Description Allow connection to VPN server for multiple users from one account.
Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> multi-login
(vpn-server)> no multi-login
```

Example

```
(vpn-server)> multi-login
VpnServer::Manager: multi login enabled.
```

| History | Version | Description |
|---------|---------|--|
| | 2.04 | The vpn-server multi-login command has been introduced. |

3.166.11 vpn-server pool-range

Description Assign a pool of addresses for the clients that connect to the VPN server. Command with **no** prefix removes a pool.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> pool-range <begin> [ <size> ]
(vpn-server)> no pool-range
```

| Arguments | Argument | Value | Description |
|-----------|----------|-------------------|---|
| | begin | <i>IP address</i> | Start address of pool. |
| | size | <i>Integer</i> | Pool size. Can take values in the range from 1 to 64 inclusively. If the size is not specified, it is determined automatically depending on the device. |

Example

```
(vpn-server)> pool-range 172.168.1.22 20
VpnServer::Manager: Configured pool range 172.168.1.22 to ►
172.168.1.41.
```

```
(vpn-server)> no pool-range
VpnServer::Manager: Reset pool range.
```

| History | Version | Description |
|---------|---------|---|
| | 2.04 | The vpn-server pool-range command has been introduced. |

3.166.12 vpn-server static-ip

Description Bind IP address to the user. User account must have vpn tag. Command with **no** prefix removes binding.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(vpn-server)> static-ip <name> <address>
```

```
(vpn-server)> no static-ip <name>
```

Arguments

| Argument | Value | Description |
|----------|-------------------|---------------------|
| name | <i>String</i> | Username. |
| address | <i>IP address</i> | IP address to bind. |

Example

```
(vpn-server)> static-ip test 172.16.1.35  
VpnServer::Manager: Static IP 172.16.1.35 assigned to user "test".
```

```
(vpn-server)> static-ip test  
VpnServer::Manager: Static IP address removed for user "test".
```

History

| Version | Description |
|---------|--|
| 2.04 | The vpn-server static-ip command has been introduced. |

Glossary

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|---|---|
| Address and Control Field Compression | <i>LCP</i> configuration option that provides a method to negotiate the compression of the Data Link Layer Address and Control fields. |
| Address Resolution Protocol | is a protocol for mapping an Internet Protocol address (IP address) to a physical machine address that is recognized in the local network. For example, in IP Version 4, the most common level of IP in use today, an address is 32 bits long. In an Ethernet local area network, however, addresses for attached devices are 48 bits long. (The physical machine address is also known as a Media Access Control or MAC address.) A table, usually called the ARP cache, is used to maintain a correlation between each MAC address and its corresponding IP address. ARP provides the protocol rules for making this correlation and providing address conversion in both directions. |
| Airtime Fairness | it is a technology intended to increase the overall performance of the wireless network by solving a problem with slow clients. With a high activity of a slow device, the Wi-Fi network bandwidth is reduced. So that fast clients don't have to wait for their data transfer queues, Airtime Fairness technology limits the session of communication with the client device not by the number of packets, but by the time of their transmission. |
| Apple Filing Protocol | is a proprietary network protocol, and part of the Apple File Service (AFS), that offers file services for macOS and the classic Mac OS. |
| Authenticated Encryption with Associated Data | this form of encryption which simultaneously assure the confidentiality and authenticity of data. AEAD is a variant of AE that allows a recipient to check the integrity of both the encrypted and unencrypted information in a message. |
| Automatic Certificate Management Environment | is a communications protocol for automating interactions between certificate authorities and their users' web servers, allowing the automated deployment of public key infrastructure at very low cost. It was designed by the Internet Security Research Group (ISRG) for their Let's Encrypt service. |
| Band Steering | is a feature that encourages dual-band capable wireless clients to connect to the less crowded 5GHz network, and leave the 2.4GHz network available for those clients who support 2.4GHz only; thus, Wi-Fi performance can be improved for all clients. |
| Challenge-Handshake Authentication Protocol | widely used algorithm for authentication, which provides the transfer of indirect information about user password. CHAP provides better security than <i>Password Authentication Protocol</i> . |

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| Change of Authorization | is a provides a mechanism for changing RADIUS authentication and authorization session attributes. Allows you to set up an active client session. |
| Command Line Interface | is a user interface to a computer's operating system or an application in which the user responds to a visual prompt by typing in a command on a specified line, receives a response back from the system, and then enters another command, and so forth. |
| Common Applications Kept Enhanced | is a shaping-capable queue discipline which uses both AQM and FQ. It combines COBALT, which is an AQM algorithm combining Codel and BLUE, a shaper which operates in deficit mode, and a variant of DRR++ for flow isolation. 8-way set-associative hashing is used to virtually eliminate hash collisions. Priority queuing is available through a simplified diffserv implementation. CAKE uses a deficit-mode shaper, which does not exhibit the initial burst typical of token-bucket shapers. It will automatically burst precisely as much as required to maintain the configured throughput. |
| Common Internet File System | is a protocol that lets programs make requests for files and services on remote computers on the Internet. CIFS uses the client/server programming model. A client program makes a request of a server program (usually in another computer) for access to a file or to pass a message to a program that runs in the server computer. The server takes the requested action and returns a response. |
| Compression Control Protocol | is used for establishing and configuring data compression algorithms over PPP . |
| Dead Peer Detection | is a method that network devices use to verify the current existence and availability of other peer devices. |
| Device Privacy Notice | is a Keenetic device privacy notice on data processing. |
| DHCP | is a network protocol that is used to configure network devices so that they can communicate on an IP network. A DHCP client uses the DHCP protocol to acquire configuration information, such as an IP address, a default route, and one or more DNS server addresses from a DHCP server. The DHCP client then uses this information to configure its host. Once the configuration process is complete, the host is able to communicate on the Internet. |
| DHCP server | manages a pool of IP addresses and information about client configuration parameters such as default gateway, domain name, the name servers, other servers such as time servers, and so forth. On receiving a valid request, the server assigns the computer an IP address, a lease (length of time the allocation is valid), and other IP configuration parameters, such as the subnet mask and the default gateway. Depending on implementation, the DHCP server may have three methods of allocating IP-addresses: <ul style="list-style-type: none">• <i>dynamic allocation</i>: A network administrator assigns a range of IP addresses to DHCP, and each client computer on the LAN is configured to request an IP address from the DHCP server during network initialization. The request-and-grant process uses a lease |

concept with a controllable time period, allowing the DHCP server to reclaim (and then reallocate) IP addresses that are not renewed.

- *automatic allocation*: The DHCP server permanently a free IP address to a requesting client from the range defined by the administrator. This is like dynamic allocation, but the DHCP server keeps a table of past IP address assignments, so that it can preferentially assign to a client the same IP address that the client previously had.
- *static allocation*: The DHCP server allocates an IP address based on a table with MAC address/IP address pairs, which are manually filled in (perhaps by a network administrator). Only requesting clients with a MAC address listed in this table will be allocated an IP address. This feature (which is not supported by all DHCP servers) is variously called Static DHCP Assignment (by DD-WRT), fixed-address (by the dhcpd documentation), Address Reservation (by Netgear), DHCP reservation or Static DHCP (by Cisco/Linksys), and IP reservation or MAC/IP binding (by various other router manufacturers).

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| DHCPv6 server | is a network protocol for configuring Internet Protocol version 6 (IPv6) hosts with IP addresses, IP prefixes, default route, local segment MTU, and other configuration data required to operate in an IPv6 network. IPv6 hosts may automatically generate IP addresses internally using stateless address autoconfiguration ¹ (SLAAC), or they may be assigned configuration data with DHCPv6. |
| Diffie-Hellman | is that part of the <i>IKE</i> protocol used for exchanging the material from which the symmetrical keys are built. The Diffie-Hellman algorithm builds an encryption key known as a "shared secret" from the private key of one party and the public key of the other. Since the <i>IPsec</i> symmetrical keys are derived from this DH key shared between the peers, at no point are symmetric keys actually exchanged. |
| DLNA | standard that allows compatible devices to transfer media content (images, music, videos) over the home network and display it in real time. This technology is to connect home computers, mobile phones, notebooks and home electronics in a single digital network. DLNA-certified devices can be configured and combined in a home network automatically. |
| Domain Name System | is a hierarchical distributed naming system for computers, services, or any resource connected to the Internet or a private network. It associates various information with domain names assigned to each of the participating entities. A Domain Name Service resolves queries for these names into IP addresses for the purpose of locating computer services and devices worldwide. By providing a worldwide, distributed keyword-based redirection service, the Domain Name System is an essential component of the functionality of the Internet. |
| DNS over HTTPS | is a domain name system, computer distributed system for obtaining information about domains using secure data transfer between internet nodes resolution via the HTTPS protocol. The method is to increase |

¹ [https://en.wikipedia.org/wiki/IPv6#Stateless_address_autoconfiguration_\(SLAAC\)](https://en.wikipedia.org/wiki/IPv6#Stateless_address_autoconfiguration_(SLAAC))

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| | user privacy and security by preventing eavesdropping and manipulation of DNS data by man-in-the-middle attacks. The standard is described in RFC 8484 ² . |
| DNS over TLS | is a domain name system, computer distributed system for obtaining information about domains using secure data transfer between internet nodes. The standard is described in RFC 7858 ³ and RFC 8310 ⁴ . |
| DNS rebinding | is a method of manipulating resolution of domain names. In this attack, a malicious web page causes visitors to run a client-side script that attacks machines elsewhere on the network. This attack can be used to breach a private network by causing the victim's web browser to access computers at private IP addresses and return the results to the attacker. |
| Encapsulating Security Payload | is a member of the <i>IPsec</i> protocol suite. In IPsec it provides origin authenticity, integrity, and confidentiality protection of packets. |
| End-user license agreement | is a legal contract between a software application author or publisher and the user of that application. |
| Fast Transition | is a new concept of roaming where the initial handshake with the new AP is done even before the client roams to the target AP. |
| Fair Queuing Controlled Delay | is queuing discipline that combines Fair Queuing with the CoDel AQM scheme. FQ_Codel uses a stochastic model to classify incoming packets into different flows and is used to provide a fair share of the bandwidth to all the flows using the queue. Each such flow is managed by the CoDel queuing discipline. |
| Fully Qualified Domain Name | is a domain name that specifies its exact location in the tree hierarchy of the <i>Domain Name System</i> . It specifies all domain levels, including the top-level domain and the root zone. A fully qualified domain name is distinguished by its lack of ambiguity: it can be interpreted only in one way. |
| Full Cone NAT | also Static NAT, one to one NAT, port forwarding is the only type of NAT where the port is permanently open and allows inbound connections from any external host. A full cone NAT maps a public IP address and port to a LAN IP and port. Any external host can send data to the LAN IP through the mapped NAT IP and port. If it tries to send data through a different port it will fail. Static NAT is required when a network device on a private network must be accessible from the Internet. |
| Generic Routing Encapsulation | is a tunneling protocol developed by Cisco Systems that can encapsulate a wide variety of network layer protocols inside virtual point-to-point links over an Internet Protocol network. |
| Hash Message Authentication Code | is a specific construction for calculating a message authentication code (MAC) involving a cryptographic hash function in combination with a |

² <https://tools.ietf.org/html/rfc8484>³ <https://tools.ietf.org/html/rfc7858>⁴ <https://tools.ietf.org/html/rfc8310>

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| | <p>secret cryptographic key. As with any MAC, it may be used to simultaneously verify both the data integrity and the authentication of a message. Any cryptographic hash function, such as MD5 or SHA-1, may be used in the calculation of an HMAC; the resulting MAC algorithm is termed HMAC-MD5 or HMAC-SHA1 accordingly. The cryptographic strength of the HMAC depends upon the cryptographic strength of the underlying hash function, the size of its hash output, and on the size and quality of the key.</p> |
| HTTP Proxy | <p>Hypertext Transfer Protocol (HTTP) and HTTPS (HyperText Transfer Protocol Secure) Proxy is a proxy server that uses the Hypertext Transfer Protocol (HTTP) to connect to a web server and a client (browser). HTTPS (HyperText Transfer Protocol Secure) proxies work with SSL (Secure Socket Layer), which is an additional layer of security imposed on HTTP to protect its data. It supports security certificates, which are used to end-to-end encrypt traffic and prevent data interception during transmission. A proxy server that supports SSL establishes a secure connection to the client and to the web server to avoid any outside interference.</p> |
| Idempotence | <p>is the property of certain operations in computer science, that they can be applied multiple times without changing the result beyond the initial application.</p> |
| Inter-Access Point Protocol | <p>is a standard IEEE 802.11F protocol exchange of service information for data transfer between access points. The protocol is responsible for combining the wireless network, secure data exchange between the current access point and the new access point in the specified period.</p> |
| Internet Control Message Protocol | <p>is a message control and error-reporting protocol between a host server and a gateway to the Internet. ICMP uses Internet Protocol (IP) datagrams, but the messages are processed by the IP software and are not directly apparent to the application user.</p> |
| Internet Control Message Protocol version 6 | <p>is the implementation of the Internet Control Message Protocol (ICMP) for Internet Protocol version 6 (IPv6). ICMPv6 is an integral part of IPv6 and performs error reporting and diagnostic functions. ICMPv6 is defined in RFC 4443⁵.</p> |
| Internet Group Management Protocol | <p>is an Internet protocol that provides a way for an Internet computer to report its multicast group membership to adjacent routers. Multicasting allows one computer on the Internet to send content to multiple other computers. Multicasting can be used for streaming media to an audience that has "tuned in" by setting up a multicast group membership.</p> |
| Internet Key Exchange | <p>is a standard protocol IPsec, used to ensure the safety of interaction in virtual private networks. IKE purpose is to establish a secure authenticated communication channel by using the Diffie-Hellman key exchange algorithm to generate a shared secret key to encrypt further IPsec communications.</p> |

⁵ <https://datatracker.ietf.org/doc/html/rfc4443>

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| Internet Protocol | is the principal communications protocol in the Internet. The first major version of IP, Internet Protocol Version 4 (IPv4), is the dominant protocol of the Internet. Its successor is Internet Protocol Version 6 (IPv6). |
| Internet Protocol Control Protocol | is a network control protocol for establishing and configuring Internet Protocol over a <i>Point-to-Point Protocol</i> (PPP) link. IPCP uses the same packet exchange mechanism as the Link Control Protocol. IPCP packets may not be exchanged until PPP has reached the Network-Layer Protocol phase, and any IPCP packets received before this phase is reached should be silently discarded. |
| Internet Protocol Security | commonly called IPsec, is a protocol suite for secure <i>Internet Protocol</i> (IP) communications by authenticating and encrypting each IP packet of a communication session. IPsec includes protocols for establishing mutual authentication between agents at the beginning of the session and negotiation of cryptographic keys to be used during the session. IPsec can be used in protecting data flows between a pair of hosts (host-to-host), between a pair of security gateways (network-to-network), or between a security gateway and a host (network-to-host). Internet Protocol security (IPsec) uses cryptographic security services to protect communications over Internet Protocol (IP) networks. IPsec supports network-level peer authentication, data origin authentication, data integrity, data confidentiality (encryption), and replay protection. |
| IPsec Passthrough | is technology that allows VPN-traffic to pass through NAT. |
| IPsec Security Association | is fundamental to IPsec. An SA is a relationship between two or more entities that describes how the entities will use security services to communicate securely. Each IPsec connection can provide encryption, integrity, authenticity, or all three. When the security service is determined, the two IPsec peers must determine exactly which algorithms to use (for example, DES or 3DES for encryption, MD5 or SHA for integrity). After deciding on the algorithms, the two devices must share session keys. The Security Association is the method that IPsec uses to track all the particulars concerning a given IPsec communication session. |
| IP in IP | is an IP tunneling protocol that encapsulates one IP packet in another IP packet. |
| IPv6CP | is responsible for configuring, enabling, and disabling the IPv6 protocol modules on both ends of the <i>Point-to-Point</i> (PPP) link. IPv6CP uses the same packet exchange mechanism as the <i>Link Control Protocol</i> . IPv6CP packets may not be exchanged until PPP has reached the Network-Layer Protocol phase. IPv6CP packets received before this phase is reached should be silently discarded. |
| Layer 2 Tunneling Protocol | is a tunneling protocol used to support virtual private networks (VPNs) or as part of the delivery of services by ISPs. It does not provide any encryption or confidentiality by itself. Rather, it relies on an encryption protocol that it passes within the tunnel to provide privacy. |
| Link Control Protocol | establishes, configures, and tests data-link Internet connections in the <i>Point-to-Point Protocol</i> (PPP). Before establishing communications over |

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| | <p>a point-to-point link, each end of the PPP link must send out LCP packets. The LCP packet either accepts or rejects the identity of its linked peer, agrees up on packet size limits, and looks for common misconfiguration errors.</p> <p>LCP packets are divided into three classes:</p> <ul style="list-style-type: none">• Link configuration packets used to establish and configure a link• Link termination packets used to terminate a link• Link maintenance packets used to manage and debug a link |
| Link Layer Discovery Protocol | <p>is a vendor-neutral link layer protocol in the Internet Protocol Suite used by network devices for advertising their identity, capabilities, and neighbors on an IEEE 802 local area network, principally wired Ethernet.</p> <p>Information gathered with LLDP is stored in the device as a management information database (MIB) and can be queried with the Simple Network Management Protocol (SNMP).</p> |
| Low-Density Parity-Check | <p>is a linear error correcting code, a method of transmitting a message over a noisy transmission channel. An LDPC is constructed using a sparse bipartite graph. LDPC codes are capacity-approaching codes, which means that practical constructions exist that allow the noise threshold to be set very close (or even arbitrarily close on the BEC) to the theoretical maximum (the Shannon limit) for a symmetric memoryless channel. The noise threshold defines an upper bound for the channel noise, up to which the probability of lost information can be made as small as desired. Using iterative belief propagation techniques, LDPC codes can be decoded in time linear to their block length.</p> |
| Master Browser | <p>is a tool that provides information about, and typically a way to access, SMB/CIFS files and printer shares. It is responsible for the browse host list within its respective subnet and portion of the domain on its subnet. Is used to host information of other Windows computers within the same Windows domain or TCP/IP network.</p> |
| Maximum Receive Unit | <p>is the maximum size (in bytes) of the frame, which can be received at the data link layer of communication protocol.</p> |
| Maximum Segment Size | <p>is a parameter of the options field of the TCP header that specifies the largest amount of data, specified in bytes, that a computer or communications device can receive in a single TCP segment. It does not count the TCP header or the IP header.</p> |
| Maximum Transmission Unit | <p>is the largest size packet or frame, specified in octets (eight-bit bytes), that can be sent in a packet- or frame-based network such as the Internet. The Internet's Transmission Control Protocol (TCP) uses the MTU to determine the maximum size of each packet in any transmission. Most computer operating systems provide a default MTU value that is suitable for most users. In general, Internet users should follow the advice of their Internet service provider (ISP) about whether to change the default value and what to change it to.</p> |

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| Microsoft Point-to-Point Encryption | encrypts data in <i>Point-to-Point Protocol</i> based dial-up connections or Point-to-Point Tunneling Protocol (PPTP) connections. 128-bit key (strong), 56-bit key, and 40-bit key (standard) MPPE encryption schemes are supported. MPPE provides data security for the PPTP connection that is between the VPN client and the VPN server. |
| Modular Wi-Fi System | a system that allows several Keenetic devices to be combined into a single Internet space distributed over an area. One of the devices is defined as the controller, the others as the members. |
| Multicast DNS | is a way of using familiar DNS programming interfaces, packet formats and operating semantics, in a small network where no conventional DNS server has been installed. The mDNS protocol uses IP multicast UDP packets, and is implemented by the Apple Bonjour and open source Avahi software packages. |
| Network Access Control List | rules that are applied to IP interfaces that are available on a router, each with a list of hosts or networks that are permitted or denied to use the service. Access control lists can be configured to control both inbound and outbound traffic. |
| Network Flow | network protocol for network traffic accounting, uses UDP or SCTP protocols to send traffic data to the collector. Collector is an application that runs on a server and collects statistics received from sensors. A sensor is a device that collects traffic statistics and sends it to a collector. The sensor can be a Cisco third-level router or switch. |
| NEXTDNS | service of NextDNS protects you from all kinds of security threats, blocks ads and trackers on websites and in apps and provides a safe and supervised Internet for kids — on all devices and on all networks. |
| Network Time Protocol | is a protocol that is used to synchronize computer clock times in a network of computers. Developed by David Mills at the University of Delaware, NTP is now an Internet standard. In common with similar protocols, NTP uses Coordinated Universal Time (UTC) to synchronize computer clock times to a millisecond, and sometimes to a fraction of a millisecond. |
| Network Traffic Classification Engine | also DPI, Deep Deep Packet Inspection is a technology for accumulating statistics and inspecting network packets based on their contents. Deep Packet Inspection analyzes not only packet headers, but also the full content of traffic at OSI layers 2 and above. Deep Packet Inspection can determine which network application has generated or received data, collecting detailed connection statistics for each device and application individually. With quality of service Deep Packet Inspection controls the transmission speed of individual packets by raising or lowering it. The Traffic Classification Engine component operates completely independently and does not make any calls to external services. |

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| Open Package | lightweight package management system. It is intended for use on embedded Linux devices and is used in this capacity in the OpenWrt ⁶ and Entware ⁷ projects. Opkg packages use the .ipk extension. |
| Opportunistic Wireless Encryption | is an extension of the IEEE 802.11 standard, similar encryption method Simultaneous Authentication of Equals (SAE). This encryption method provides users with better protection when connected to an open Wi-Fi network. |
| Password Authentication Protocol | is an authentication protocol that uses a password. PAP is used by Point-to-Point Protocol to validate users before allowing them access to the remote network. PAP transmits unencrypted ASCII passwords over the network and is therefore considered insecure. |
| Protected Extensible Authentication Protocol | is a protocol that encapsulates the Extensible Authentication Protocol (EAP) within an encrypted and authenticated Transport Layer Security (TLS) tunnel. The purpose was to correct deficiencies in EAP; EAP assumed a protected communication channel, such as that provided by physical security, so facilities for protection of the EAP conversation were not provided. |
| Perfect Forward Secrecy | is a property of secure communication protocols: a secure communication protocol is said to have forward secrecy if compromise of long-term keys does not compromise past session keys. PFS protects past sessions against future compromises of secret keys or passwords. |
| Ping Check | performs ICMP and TCP based tests to verify if the internet connection is working fine. Test results may be used to switch between primary and backup connections. |
| Pairwise Master Key | is a cryptographic private key used in wireless networks to establish secure communication between devices. PMK is derived from a pre-shared key (PSK) or another authentication mechanism, and it serves as the foundation for generating encryption keys for pairwise communication. The PMK is primarily used in the IEEE 802.11i standard. |
| Point-to-Point Protocol | is a protocol used to establish a direct connection between two nodes. It can provide connection authentication, transmission encryption, and compression. PPP is used over many types of physical networks including serial cable, phone line, cellular telephone, specialized radio links, and fiber optic links. After the link has been established, additional network (layer 3) configuration may take place. Most commonly, the Internet Protocol Control Protocol (IPCP) is used. |
| Public Land Mobile Network | is a combination of wireless communication services offered by a specific operator in a specific country. PLMN typically consists of several cellular technologies like GSM/2G, UMTS/3G, LTE/4G, offered by a operator cellular network. |
| Preamble | it is the first part of the Physical Layer Convergence Protocol/Procedure (PLCP) Protocol Data Unit (PDU). A header is the remaining part of the data packets and has more information identifying the modulation |

⁶ <https://www.openwrt.org/>

⁷ <https://github.com/Entware/Entware>

scheme, transmission rate, and length of time to transmit the whole data frame.

The Preamble type in IEEE 802.11 based wireless communication defines the length of the CRC (Cyclic Redundancy Check) block for communication between the Access Point and roaming wireless adapters.

Long preamble:

- PLCP with long preamble is transmitted at 1 Mbps regardless of transmit rate of data frames
- Total long preamble transfer time is a constant at 192 usec
- Compatible with legacy IEEE 802.11 systems running at 1 and 2 Mbps

Short preamble:

- Preamble is transmitted at 1 Mbps and header at 2 Mbps
- Total short preamble transfer time is a constant at 96 usec
- Not compatible with legacy IEEE 802.11 systems operating at 1 and 2 Mbps

Protected Management Frames

IEEE 802.11w is the Protected Management Frames standard for the IEEE 802.11 family of standards. This functionality is necessary to improve security by ensuring data confidentiality in control frames.

Protocol Field Compression

is a method to negotiate the compression of the [PPP](#) Protocol field. By default, all implementations MUST transmit packets with two octet PPP Protocol fields.

Pseudo-Random Function

is similar to an integrity algorithm, but instead of being used to authenticate messages, it is only used to provide randomness for purposes such as keying material. PRFs are primarily used with an authenticated encryption algorithm type such as AES-GCM.

Radio Resource Management

is the system level management of co-channel interference, radio resources, and other radio transmission characteristics in wireless communication systems. RRM includes control parameters such as transmit power, user allocation, beamforming, data rates, handover criteria, modulation scheme, coding scheme errors.

Remote Authentication in Dial-In User Service

is a protocol to implement authentication, authorization, and resource collection. It is used for charging the used resources by a specific user. Used to authenticate users on open Wi-Fi wireless networks.

Remote Procedure Call

is a protocol that one program can use to request a service from a program located in another computer in a network without having to understand network details. (A procedure call is also sometimes known as a function call or a subroutine call.) RPC uses the client/server model. The requesting program is a client and the service-providing program is the server. Like a regular or local procedure call, an RPC is a

| | |
|------------------------------------|---|
| | synchronous operation requiring the requesting program to be suspended until the results of the remote procedure are returned. |
| Restricted NAT | also Dynamic NAT works in the same way as a Full Cone NAT but applies additional restrictions based on an IP address. The internal client must first have sent packets to IP address (X) before it can receive packets from X. In terms of restrictions the only requirement is that packets come in on the mapped port and from an IP address that the internal client has sent packets to. |
| Secure Socket Tunneling Protocol | is a type of VPN tunnel that utilizes an SSL 3.0 channel to send PPP or L2TP traffic. SSL allows for transmission and data encryption, as well as traffic integrity checking. Due to this, SSTP can pass through most firewalls and proxy servers by using the SSL channel over TCP port 443. |
| Service Set Identifier | is a sequence of characters that uniquely names a wireless local area network (WLAN). An SSID is sometimes referred to as a "network name". This name allows stations to connect to the desired network when multiple independent networks operate in the same physical area. |
| Simple Network Management Protocol | is an Internet-standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior. Devices that typically support SNMP include routers, switches, servers, workstations, printers, modem racks and more. |
| Simple Network Time Protocol | is an Internet Protocol (IP) used to synchronize the clocks of networks of computers. SNTP is based upon the TCP/IP protocol suite. It is an application layer time protocol, part of the Network Time Protocol base protocol. Along with NTP, SNTP communicates using the User Datagram Protocol (UDP). By default, UDP port 123 is used. SNTP can operate on IPv4 and IPv6 networks. The standard is described in RFC 4330 ⁸ . |
| SOCKS | is an Internet protocol that exchanges network packets between a client and server through a proxy server. SOCKS5 optionally provides authentication so only authorized users may access a server. SOCKS server proxies TCP connections to an arbitrary IP address, and provides a means for UDP packets to be forwarded. |
| Shared key | is a mode by which a computer can gain access to a wireless network that uses the Wired Equivalent Privacy protocol. With Shared Key, a computer equipped with a wireless modem can fully access any WEP network and exchange encrypted or unencrypted data. |
| Short Message Service | is a text messaging service component of most telephone, Internet, and mobile device systems. It uses standardized communication protocols to enable mobile devices to exchange short text messages. |

⁸ <https://www.rfc-editor.org/rfc/rfc4330>

| | |
|--|--|
| SSH File Transfer Protocol | is a application layer protocol for transferring files over a reliable and secure connection over TCP port 22. |
| Transmission Control Protocol | is a core protocol of the <i>Internet Protocol</i> suite. TCP provides reliable, ordered, and error-checked delivery of a stream of octets between applications running on hosts communicating over an IP network. |
| Temporal Key Integrity Protocol | is a security protocol used in the IEEE 802.11 wireless networking standard. TKIP was designed by the IEEE 802.11i task group and the Wi-Fi Alliance as an interim solution to replace WEP without requiring the replacement of legacy hardware. |
| Universal Access Method | is a method that allows a subscriber to access a wireless Wi-Fi network. The Internet browser will open a login page where the user should fill in his credentials before he can access. UAM uses the RADIUS client and the RADIUS server for authorization. |
| User Datagram Protocol | is a core protocol of the <i>Internet Protocol</i> suite. UDP uses a simple connectionless transmission model with a minimum of protocol mechanism. It has no handshaking dialogues, and thus exposes the user's program to any unreliability of the underlying network protocol. There is no guarantee of delivery, ordering, or duplicate protection. Time-sensitive applications often use UDP because dropping packets is preferable to waiting for delayed packets, which may not be an option in a real-time system. |
| udpxy | is a UDP-to-HTTP multicast traffic relay daemon: it forwards UDP traffic from a given multicast subscription to the requesting HTTP client. |
| Universal Plug and Play | is a standard that uses Internet and Web protocols to enable devices such as PCs, peripherals, intelligent appliances, and wireless devices to be plugged into a network and automatically know about each other. With UPnP, when a user plugs a device into the network, the device will configure itself, acquire a TCP/IP address, and use a discovery protocol based on the HTTP to announce its presence on the network to other devices. |
| Unstructured Supplementary Service Data | is a communications protocol used by cellular telephones to communicate with the mobile network operator's computers. USSD is commonly used by prepaid cellular phones to query the available balance. |
| Variable Gain Amplifiers | are signal-conditioning amplifiers with electronically settable voltage gain. Used to improve wireless communication. |
| Virtual LAN | is a local area network with a definition that maps workstations on some other basis than geographic location (for example, by department, type of user, or primary application). The virtual LAN controller can change or add workstations and manage loadbalancing and bandwidth allocation more easily than with a physical picture of the LAN. |
| Web Distributed Authoring and Versioning | is a extension of the Hypertext Transfer Protocol (HTTP) that allows clients to perform remote Web content authoring operations. Supports |

| | |
|-----------------------------------|---|
| | <p>web server authentication and SSL encryption for HTTPS using the default TCP port 443.</p> |
| Web Proxy Auto-Discovery Protocol | <p>is a method used by clients to locate the URL of a configuration file using DHCP and/or DNS discovery methods. Once detection and download of the configuration file is complete, it can be executed to determine the proxy for a specified URL.</p> |
| WireGuard | <p>is a free and open-source software application and virtual private network (VPN) protocol to create secure point-to-point connections in routed configurations. WireGuard protocol uses modern cryptography options Curve25519 for key exchange, ChaCha20 for encryption, and Poly1305 for data authentication, SipHash for hashtable keys, and BLAKE2s for hashing. Supports layer 3 for both protocols IPv4 and IPv6.</p> |
| Wi-Fi Multimedia | <p>previously known as Wireless Multimedia Extensions (WME), is a subset of the 802.11e wireless LAN (WLAN) specification that enhances quality of service (QoS) on a network by prioritizing data packets according to four access categories (AC). Ranging from highest priority to lowest, these categories are: voice (AC_VO), video (AC_VI), best effort (AC_BE), and background (AC_BK).</p> <p>WMM also features a Power Save certification that helps small devices on a network conserve battery life. Power Save allows small devices, such as phones and PDAs, to transmit data while in a low-power "dozing" status. The certification gives software developers and hardware manufacturers a way to fine-tune battery use in the ever-increasing number of small devices that have Wi-Fi capabilities.</p> |
| Wi-Fi Protected Access | <p>Wi-Fi Protected Access II (WPA2), and Wi-Fi Protected Access 3 (WPA3) are three security protocols and security certification programs developed by the Wi-Fi Alliance to secure wireless computer networks. The Alliance defined these in response to serious weaknesses researchers had found in the previous system, WEP. WPA advantages are enhanced data security and tightened access control for wireless networks. Important characteristic is the compatibility between multiple wireless devices at the hardware level as well as at software level.</p> <p>WPA3 uses 128-bit encryption in WPA3-Personal mode (192-bit in WPA3-Enterprise). The WPA3 standard also replaces the Pre-Shared Key exchange with Simultaneous Authentication of Equals as defined in IEEE 802.11-2016 resulting in a more secure initial key exchange in personal mode.</p> <p>WPA Enterprise is a protocol-based authentication mode IEEE 802.1X using an external authentication server RADIUS and local client Supplicant.</p> |
| Wi-Fi Protected Setup | <p>provides an industry-wide mechanism to set up and configure networks for home and small office (SOHO) environments. Wi-Fi Protected Setup enables typical users who possess little understanding of traditional Wi-Fi configuration and security settings to easily configure new wireless networks, to add new devices and to enable security.</p> |

| | |
|------------------------------------|--|
| Wired Equivalent Privacy | is a security algorithm for IEEE 802.11 wireless networks. WEP, recognizable by the key of 10 or 26 hexadecimal digits, is widely in use and is often the first security choice presented to users by router configuration tools. In 2004, with the ratification of the full 802.11i standard (i.e. WPA2), the IEEE declared that both WEP-40 and WEP-104 have been deprecated. |
| Wireless Internet Service Provider | <p>is an Internet service provider (ISP) that allows subscribers to connect to a server at designated hotspots (access points) using a wireless connection such as Wi-Fi. This type of ISP offers Broadband service and allows subscriber computers, called stations, to access the Internet and the Web from anywhere within the zone of coverage provided by the server antenna. This is usually a region with a radius of several kilometers.</p> <p>The simplest WISP is a basic service set (BSS) consisting of one server and numerous stations all linked to that server by wireless. More sophisticated WISP networks employ the extended service set (ESS) topology, consisting of two or more BSSs linked together at access points (APs). Both BSS and ESS are supported by the IEEE 802.11b specification.</p> |
| Extended Authentication | or XAUTH, provides an additional level of authentication by allowing the IPsec gateway to request extended authentication from remote users, thus forcing remote users to respond with their credentials before being allowed access to the VPN. |
| XFRM | is an IP framework for transforming packets (such as encrypting their payloads) and used to implement the IPsec protocol suite. It is also used for the IP Payload Compression Protocol and features of Mobile IPv6. |
| ZeroTier | <p>is a distributed network hypervisor built atop a cryptographically secure global peer to peer network. It provides advanced network virtualization and management capabilities on par with an enterprise SDN switch, but across both local and wide area networks and connecting almost any kind of app or device.</p> <p>All traffic is encrypted end to end on OSI layer 1 using 256-bit Salsa20 and authenticated using the Poly1305 message authentication (MAC) algorithm. MAC is computed after encryption (encrypt-then-MAC) and the cipher/MAC composition used is identical to the NaCl reference implementation.</p> <p>The ZeroTier world is controlled by two types of identifier: 40-bit/10-digit <i>ZeroTier addresses</i> and 64-bit/16-digit <i>network IDs</i>. These identifiers are easily distinguished by their length. A ZeroTier address identifies a node or "device" (laptop, phone, server, VM, app, etc.) while a network ID identifies a virtual Ethernet network that can be joined by devices.</p> <p>A ZeroTier address looks like 8056c2e21c and a network ID looks like 8056c2e21c000001. Network IDs are composed of the ZeroTier address of that network's primary controller and an arbitrary 24-bit ID that identifies the network on this controller.</p> |

Interface Hierarchy

Figure A.1. Core interfaces

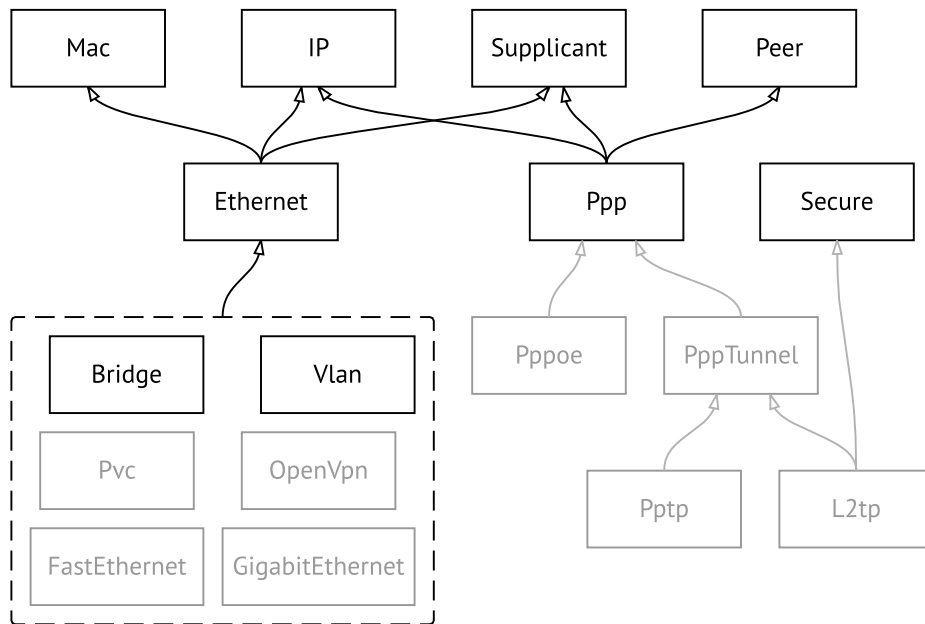


Figure A.2. Tunnel interfaces

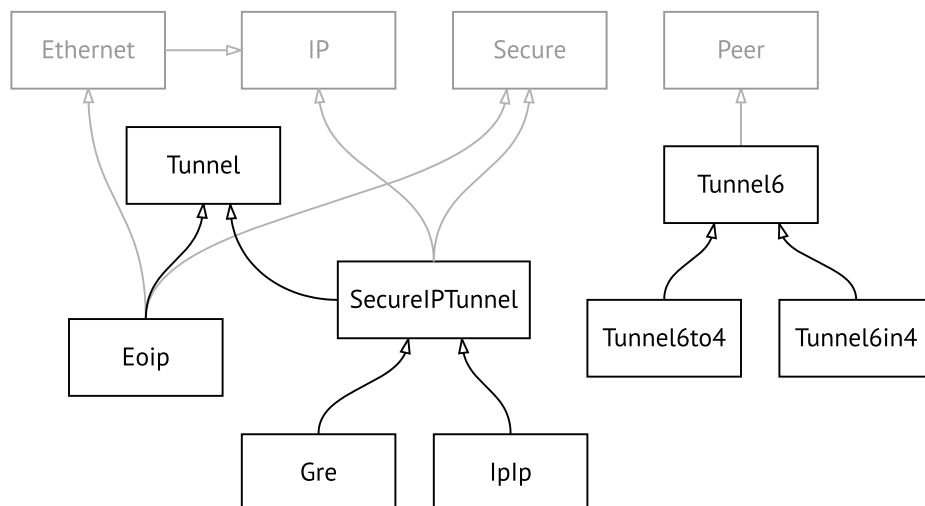


Figure A.3. USB interfaces

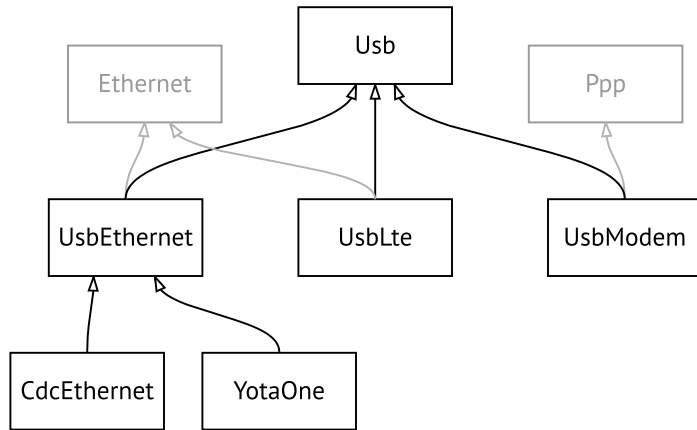
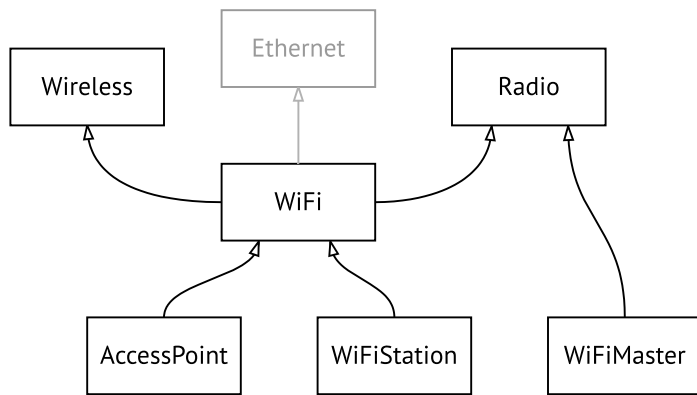


Figure A.4. Wi-Fi interfaces



B.1 REST Core Interface

Carrier HTTP API lets you develop a custom application, that will access Carrier settings using simple HTTP methods, such as GET and POST.

The base URL for all operations is `/rci`, that simply stands for REST Core Interface. It replaces the [XML Core Interface](#), which is now deprecated but continues to be functional.

B.1.1 Resource Location

RCI is based on the Carrier command tree. Device settings are mapped to RCI resources in such a way that every “a b c” command corresponds to the `/rci/a/b/c` URL.

As a result, hereby [Command Reference](#) gives you a complete picture of all RCI resources and their parameters. The words “command” and “resource” are used interchangeably in this manual.

Parameters are listed in the Arguments table of each command. They can be passed as part of the request using HTTP query: `/rci/a/b/c?parameter=value`. Unless otherwise specified for a certain command, query parameters are optional. Multiple parameters should be separated by ampersand (&) characters.

Parameters can also be passed in the POST request body, as described in [Section B.1.3 on page 702](#).

B.1.2 Methods

Method semantics depend on the type of resource. There are three types of resources in RCI:

- Settings
- Actions
- Background processes

B.1.2.1 Settings

Settings are device configuration elements. You can view, modify, or delete settings using standard HTTP methods.

GET Retrieve settings.

- POST Create or modify settings.
- DELETE Delete settings (reset to default).

B.1.2.2 Actions

Actions are commands that do not modify settings. Actions run instantly as opposed to background processes, see also [Section B.1.2.3 on page 702](#)

- GET Mapped to POST for /rci/show. Not applicable to other actions.
- POST Execute a command and return its output.
- DELETE Not applicable.

B.1.2.3 Background processes

Background processes are instances that can be created and polled for updates. Such processes are bound to a particular session, and cannot be accessed from anywhere else.

- GET Retrieve updates from existing process. Returns 404 if there is no such process.
- POST Create a background process.
- DELETE Terminate a background process.

B.1.3 Data Format

HTTP POST requests must be submitted in a free-form JSON,¹ that is interpreted as a batch of parameters and nested settings, depending on the data type. Conversely, HTTP GET returns JSON data that was previously POSTed to the specified resource.

The primary data type is Object. This is unordered collection of key-value pairs, enclosed in curly brackets {}. Each key must be unique within an object.

Objects can be put one into another, or be combined in arrays as detailed in [Section B.1.3.2 on page 703](#) and [Section B.1.3.3 on page 703](#)

B.1.3.1 Parameters

String, boolean and number values of an object are interpreted as parameters of the resource being addressed.

```
{  
  "parameter": value  
}
```

Example B.1. Set hotspot policy

Set policy "permit" for the Home network. Refer to [Section 3.44.8 on page 339](#) to see how "interface" and "access" parameters are mentioned in the Arguments table.

¹In compliance with RFC 7159.

```
POST /rci/ip/hotspot/policy HTTP/1.1
Host: 192.168.1.1
Content-length: 48
Content-type: application/json

{
  "interface": "Home",
  "access": "permit"
}
```

B.1.3.2 Nested resources

Object and array values of a parent object are interpreted as nested resources.

```
{
  "command": {
    "parameter": value
  }
}
```

In particular, empty object denotes a command with no parameters.

```
{
  "command": {}
}
```

Using this rule, you can address multiple resources at a time. RCI engine will process your request from top to bottom, recursing over the JSON structure. Parameters of a parent resource apply to all nested resources within the nearest surrounding scope.

Example B.2. Create and enable a PPP interface

Call “interface” to create a new PPPoE connection, as described in [Section 3.29 on page 145](#), and enable it with “interface up”. The “name” parameter applies to both “interface” and “up”.

```
POST /rci HTTP/1.1
Host: 192.168.1.1
Content-length: 39
Content-type: application/json

{"interface":{"name":"PPPoE1","up":{}}}
```

B.1.3.3 Arrays

Arrays can be used to operate on a specific resource multiple times. The important thing is that arrays preserve the order of their elements, in contrast to object members.

```
{
  "command": [
    {"parameter1": value1},
    {"parameter2": value2} ]
}
```

B.1.3.4 Response structure

The structure of POST output strictly corresponds to input. RCI reproduces input arrays and nested objects, and replaces input parameters with output data. This approach lets you locate any part of the response using a resource name.

Example B.3. Show version and interface Home

Run two different “show” commands in a certain order.

```
POST /rci/show HTTP/1.1
Host: 192.168.1.1
Content-length: 46
Content-type: application/json

[{"version":{}}, {"interface":{"name":"Home"}}]
```

Response is an array of two elements, in accordance with the request.

```
[
  {
    "version": {
      "release": "2.12.A.1.0-1",
      "arch": "mips",
      "ndm": {
        "exact": "0-cbf8590",
        "cdate": "15 Jan 2018"
      },
      "bsp": {
        "exact": "0-06ee10b",
        "cdate": "15 Jan 2018"
      },
      "ndw": {
        "version": "0.2.1",
        "features": "wifi_button,single_usb_port,dual_image",
        "components": "base,cloudcontrol,..."
      },
      "manufacturer": "Keenetic Ltd.",
      "vendor": "Keenetic",
      "series": "KN",
      "model": "4G (KN-1210)",
      "hw_version": "10128000",
      "hw_id": "KN-1210",
      "device": "4G",
      "class": "Internet Center"
    },
    "interface": {
      "id": "Bridge0",
      "index": 0,
      "type": "Bridge",
      "description": "Home network",
      "interface-name": "Home",
    }
  }
]
```



```

    "link": "up",
    "connected": "yes",
    "state": "up",
    "mtu": 1500,
    "tx-queue": 1000,
    "address": "192.168.1.1",
    "mask": "255.255.255.0",
    "uptime": 2621,
    "global": false,
    "security-level": "private",
    "mac": "50:ff:20:00:00:08",
    "auth-type": "none"
  }
}
]

```

B.2 XML Core Interface

Warning: XML Core Interface is deprecated and is maintained for backward compatibility.

Carrier provides an HTTP XML API. The API is implemented as `/ci` resource that accepts POST XML requests and returns XML after the user agent has been authenticated.

If Carrier is reset to factory defaults, authentication is not required.

Example B.4. XML API call

Execute the **“show interface”** command for the WAN interface named ISP. This interface exists by default in Carrier.

```

POST /ci HTTP/1.1
Host: 192.168.1.1
Connection: keep-alive
Content-Length: 177
Origin: http://192.168.1.1
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64)
Content-Type: application/xml
Referer: http://192.168.1.1/

<packet ref="/">
  <request id="1" ref="former.ifaces[load]">
    <command name="show interface">
      <name>ISP</name>
    </command>
  </request>
</packet>

```

The device responds with the current status of ISP:

```

HTTP/1.0 200 OK
Server: Ag [47]
Set-Cookie: _authorized=*; path=/

```

```

Content-type: text/xml
Content-Length: 760

<packet>
  <response id="1">
    <interface name="ISP">
      <mac>ec:43:f6:d3:22:d9</mac>
      <id>FastEthernet0/Vlan2</id>
      <index>2</index>
      <type>VLAN</type>
      <description>Broadband connection</description>
      <link>down</link>
      <connected>no</connected>
      <state>up</state>
      <mtu>1500</mtu>
      <tx-queue>1000</tx-queue>
      <global>yes</global>
      <defaultgw>no</defaultgw>
      <priority>700</priority>
      <security-level>public</security-level>
      <auth-type>none</auth-type>
    </interface>
    <message code="268370345" ident="Network::Interface::Base"
source="">done</message>
  </response>
</packet>

```

The `<request>` element is always sent from the user agent to the device. The device always responds with a `<response>`. The `id` attribute can be used to establish one-to-one correspondence between them.

Figure B.1. Request Element

```

<request id="identifier">
  <!-- request content -->
</request>

```

Figure B.2. Response Element

```

<response id="identifier">
  <!-- response content -->
</response>

```

There are two basic types of XML requests:

| | |
|-----------------------|--|
| Command Request | Execute a specific command on the device. Available commands are described in Chapter 3 on page 39 |
| Configuration Request | Get parameters that have been configured by a specific command. |

B.2.1 Command Request

Command request can be used to execute a specific command on the device.

Figure B.3. Command Request

```
<request id="identifier">
  <command name="command">
    <no/>
    <argument>value</argument>
    ...
  </command>
</request>
```

command Space separated name of the command. Available commands are listed in [Chapter 3 on page 39](#).

argument Name of the argument. Available arguments for each command are listed in [Chapter 3 on page 39](#). Some commands do not require any arguments.

value Value of the argument.

no Optional element that is used to negate the action of the command. It has the same effect as the prefix *no*, see [Section 2.3 on page 35](#).

B.2.2 Configuration Request

Configuration request can be used to get configured parameters. Web interface uses this kind of request to fill out the HTML forms.

Figure B.4. Configuration Request

```
<request id="identifier">
  <config name="command" />
</request>
```

B.2.3 Request Packet

Multiple requests can be arranged in packets to optimize the performance.

Figure B.5. Request Packet

```
<packet>
  <request id="1">
    <!-- request content -->
  </request>
  <request id="2">
    <!-- request content -->
  </request>
  ...
</packet>
```

Response elements are returned as a packet. Response identifiers are used to bind response elements to requests. If there is no response, an empty `<response/>` element is returned.

Figure B.6. Response Packet

```
<packet>
  <response id="1">
    <!-- response content -->
  </response>
  <response id="2"/>
    <!-- no response for id=2 -->
    ...
</packet>
```

NVOX CLI commands

NVOX is an IP telephony application designed to work with Keenetic Linear USB module. Allows you to connect telephones to your Keenetic router to make and receive calls over the Internet using SIP.

Why the prefix substitution rule is used

In some cases, in incoming calls, the calling numbers are defined in a format that is not compatible with the dialing rules of the IP telephony operator. This makes it impossible to call back the number from the phone's call log.

For example: during an incoming call on the phone display, you can see +393921234567 and to call back the subscriber, you need to dial 3921234567. In this case, the prefix substitution rule **(+39>)x**. can remove **+39** from the caller's number. With this rule, when a call comes in, the handset display shows the number 3921234567, compatible with the operator's dialing rules.

Syntax of prefix substitution rules

01234567890*#+ABCDx[()]|-.> — allowed characters.

T — waiting for the next digit of the number.

x — any digit from 0 to 9.

[146] — any of the numbers in square brackets (1, 4, or 6).

[1-6] — any of the digits in the range specified in square brackets (1,2,3,4,5 or 6).

(8>+7) — replacement/substitution/deletion. To the left of the > symbol, there is a sequence of digits that should be replaced with the sequence to the right of the >. If only the sequence on the left is specified, it will be deleted from the dialed number. If only the sequence on the right is specified, it will be added. The expression must be enclosed in parentheses.

2. — the digit to the left of the dot is repeated any number of times.

The | character separates two or more prefix replacement rules in a string.

Examples of a prefix substitution rules

(+7>8)49(589)x. — in numbers with the prefix **+7** and code **495**, **498** or **499** the prefix changes to 8, the rest of the number remains unchanged.

8[49]xxxxxxxxxx — any number with 11 digits, the first digit of which is **8** and the second digit of which is **4** or **9**.

10xx — any four-digit number in which the first digits are **10**.

xx#** — a four-digit sequence in which the first character is **, followed by any two digits and the character **#**.

[1-79]xxxxxx — any number of seven digits in which the first digit is any digit except 8.

x. — any number consists of digits from 0 to 9.

0T|00T|000 — the numbers 0, 00 or 000. The **T** symbol is used to wait for dialing to continue after dialing 0 and 00. It should be used if you need to dial in conversational mode (press the call button, then dial the number).

(8>+7)x. — in any number, the first digit of **8** will be replaced by **+7**.

(*2>84951234567) — dialing ***2** will send a call to 84951234567. You can configure a speed dialing.

8[49]xxxxxxxxxx|10xx|*xx# — the three rules discussed above are written on one line, separated by **|**. The telephone exchange checks such rules one by one, from left to the right.

C.1 nvox

Description Access to a group of commands to manage the telephone station.

Prefix no No

Change settings No

Multiple input No

Group entry (nvox)

Synopsis (config)> **nvox**

Example

```
(config)> nvox
Core::Configurator: Done.
(nvox)>
```

History

| Version | Description |
|---------|--|
| 2.00 | The nvox command has been introduced. |

C.2 nvox call-history clear

Description Delete all entries from the call log.

Prefix no No

Change settings No

Multiple input No

Synopsis | (nvox)> **call-history clear**

Example (nvox)> **call-history clear**
Nvox::CallHistory: Call history cleared.

| Version | Description |
|---------|---|
| 2.06 | The dect call-history clear command has been introduced. |
| 3.05 | The command renamed to nvox call-history clear . |

C.3 nvox call-history delete-call

Description Delete a call log entry.

Prefix no No

Change settings No

Multiple input No

Synopsis | (nvox)> **call-history delete-call** <call-index>

| Argument | Value | Description |
|------------|-------|------------------------------|
| call-index | Hex | Four-digit entry identifier. |

Example (nvox)> **call-history delete-call 000f**

| Version | Description |
|---------|---|
| 3.05 | The nvox call-history delete-call command has been introduced. |

C.4 nvox call-history directory

Description Specify a directory on the external USB drive to store call log files. By default, the call log is stored in the Keenetic router's RAM and is cleared after a reboot.

Command with **no** prefix resets setting to default.

Note: The phone book is stored in the same directory as the call log.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> call-history directory <directory>
```

```
(nvox)> no call-history directory
```

Arguments

| Argument | Value | Description |
|-----------|-----------------|---|
| directory | <i>Filename</i> | Path to the folder on the external drive. |

Example

```
(nvox)> call-history directory DATA:/call-history
Nvox::Manager: Set call history directory to DATA:/call-history.
```

```
(nvox)> no call-history directory
Nvox::Manager: Call history directory reset to default.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox call-history directory command has been introduced. |

C.5 nvox call-history dump

Description Save the call log to a *.csv file.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(nvox)> call-history dump
```

Example

```
(nvox)> call-history dump
Nvox::CallHistory: Dump call history to file: ►
/tmp/mnt/ff085e00-8850-4ac3-9f46-3c209fcf3a13/nvox/nvox.history_calls.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox call-history dump command has been introduced. |

C.6 nvox call-history filter

Description Configure a filter to output the call history by the [show nvox call-history](#) command.

Command with **no** prefix disables the filter.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> call-history filter <time-from> <time-to> <type> [text]
```

```
(nvox)> no call-history filter
```

Arguments

| Argument | Value | Description |
|-----------|--------|--|
| time-from | String | Date and time of the period start in DD MM YYYY HH:MM:SS format. |
| | * | The beginning of the interval is not set. |
| time-to | String | Date and time of the period end in DD MM YYYY HH:MM:SS format. |
| | * | The end of the interval is not set. |
| type | in | Search in incoming calls. |
| | out | Search in outgoing calls. |
| | missed | Search in missed calls. |
| | * | Search in any calls. |
| text | String | Text to find. |

Example

```
(nvox)> call-history filter "12 Aug 2021 00:00:00" "15 Aug 2021 23:59:59" in 1234567
Nvox::CallHistory: Filter enabled.
```

```
(nvox)> no call-history filter
Nvox::CallHistory: Filter disabled.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox call-history filter command has been introduced. |

C.7 nvox call-history length

Description Set the maximum number of records in the call log. By default, value 500 is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> call-history length <length>
```

```
(nvox)> no call-history length
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| length | <i>Integer</i> | The number of entries in the call log in the range from 2 to 8000. |

Example

```
(nvox)> call-history length 400  
Nvox::CallHistory: Set history length to 400.
```

```
(nvox)> no call-history length  
Nvox::CallHistory: Reset history length to default value (500).
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox call-history length command has been introduced. |

C.8 nvox fxs

Description

Access to a group of commands to configure the USB FXS adapter.

Prefix no

No

Change settings

No

Multiple input

No

Group entry

(nvox - fxs)

Synopsis

```
(config)> nvox fxs
```

Example

```
(config)> nvox fxs  
Core::Configurator: Done.  
(nvox - fxs)>
```

History

| Version | Description |
|---------|--|
| 2.00 | The nvox fxs command has been introduced. |

C.8.1 nvox fxs country

Description

Set the national FXS settings profile. Tones, ringtone, port impedance, etc. will be configured according to the standards in force in that country.

Command with **no** prefix resets the country code value to what is hardwired into the router.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-fxs)> country <country>
```

```
(nvox-fxs)> no country
```

Arguments

| Argument | Value | Description |
|----------|-------|---|
| country | BG | Two-letter country code (ISO 3166-1 alpha-2). |
| | CA | |
| | CS | |
| | DE | |
| | DK | |
| | EE | |
| | ES | |
| | FI | |
| | FR | |
| | GR | |
| | HR | |
| | HU | |
| | IT | |
| | KZ | |
| | LT | |
| | LV | |
| | NO | |
| | PL | |
| | PT | |
| | RO | |
| RS | | |
| RU | | |
| SE | | |
| SI | | |
| SK | | |
| TR | | |

| Argument | Value | Description |
|----------|-------|-------------|
| | UA | |

Example

```
(nvox-fxs)> country DE
Nvox::Manager: Set FXS Country for FXS configuration to "DE".
```

```
(nvox-fxs)> no country
Nvox::Manager: Reset FXS Country for FXS configuration to "TR".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox fxs country command has been introduced. |

C.8.2 nvox fxs echo-canc-mode

Description

Set echo cancellation mode on FXS ports. By default, 2 value is used.

Command with **no** prefix resets the mode to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-fxs)> echo-canc-mode mode
```

```
(nvox-fxs)> no echo-canc-mode
```

Arguments

| Argument | Value | Description |
|----------|-------|----------------------------|
| mode | 0 | Echo cancellation is off. |
| | 1 | Weak echo cancellation. |
| | 2 | Medium echo cancellation. |
| | 3 | Maximum echo cancellation. |

Example

```
(nvox-fxs)> echo-canc-mode 3
Nvox::Manager: Set FXS Echo cancellation mode to "3".
```

```
(nvox-fxs)> no echo-canc-mode
Nvox::Manager: Reset FXS Echo cancellation mode.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox fxs echo-canc-mode command has been introduced. |

C.8.3 nvox fxs echo-canc-thresholds

Description Set the threshold levels of the audio signal to activate echo cancellation. By default, 20 and 15 values is used. The upper threshold must be higher than the lower threshold.

Command with **no** prefix resets settings to default.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(nvox-fxs)> echo-canc-thresholds mute_threshold unmute_threshold
(nvox-fxs)> no echo-canc-thresholds
```

Arguments

| Argument | Value | Description |
|------------------|----------------|---|
| mute_threshold | <i>Integer</i> | Upper threshold signal level between 1 and 127. |
| unmute_threshold | <i>Integer</i> | Lower threshold signal level between 1 and 127. |

Example

```
(nvox-fxs)> echo-canc-thresholds 15 10
Nvox::Manager: Set FXS Echo cancellation mute threshold to "15" ►
and Echo cancellation unmute threshold to "10".
```

```
(nvox-fxs)> no echo-canc-thresholds
Nvox::Manager: Reset FXS Echo cancellation mute threshold and ►
Echo cancellation unmute threshold.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox fxs echo-canc-thresholds command has been introduced. |

C.8.4 nvox fxs force-calibration

Description Perform LB calibration for FXS ports each time FXS is initialized.

Command with **no** prefix disables LB calibration, using factory calibration data.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (nvox-fxs)> **force-calibration**

| (nvox-fxs)> **no force-calibration**

Example (nvox-fxs)> **force-calibration**
Nvox::Manager: Set FXS Force FXS longitudinal balance calibration ▶ on start to "1".

(nvox-fxs)> **no force-calibration**
Nvox::Manager: Set FXS Force FXS longitudinal balance calibration ▶ on start to "0".

History

| Version | Description |
|---------|--|
| 3.05 | The nvox fxs force-calibration command has been introduced. |

C.8.5 nvox fxs init-timer

Description Set FXS initialisation waiting timer in milliseconds. By default, 15000 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (nvox-fxs)> **init-timer** <timer>

| (nvox-fxs)> **no init-timer**

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timer | <i>Integer</i> | Timer value in milliseconds. Can take values in the range from 1000 to 300000. |

Example (nvox-fxs)> **init-timer 1000**
Nvox::Manager: Set FXS Timer to exit on DECT dongle ▶ initialization failure to "1000".

(nvox-fxs)> **no init-timer**
Nvox::Manager: Reset FXS Timer to exit on DECT dongle ▶ initialization failure.

History

| Version | Description |
|---------|---|
| 3.05 | The nvox fxs init-timer command has been introduced. |

C.8.6 nvox fxs led-blinking-timer

Description Set the switching period (flashing frequency) of the FXS port status LEDs in talk mode. By default, 15000 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-fxs)> led-blinking-timer <timer>
(nvox-fxs)> no led-blinking-timer
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timer | <i>Integer</i> | Timer value in milliseconds. Can take values in the range from 0 to 60000. |

Example

```
(nvox-fxs)> led-blinking-timer 1000
Nvox::Manager: Set FXS LED blinking period during calls to "1000".
```

```
(nvox-fxs)> no led-blinking-timer
Nvox::Manager: Reset FXS LED blinking period during calls.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox fxs led-blinking-timer command has been introduced. |

C.8.7 nvox fxs port-paging

Description Enable FXS port paging.

Command with **no** prefix disables the paging.

Prefix no Yes

Change settings No

Multiple input No

Synopsis

```
(nvox-fxs)> port-paging <id>
(nvox-fxs)> no port-paging
```

Arguments

| Argument | Value | Description |
|----------|-------|--------------|
| id | 1 | FXS port ID. |
| | 2 | |

Example

```
(nvox-fxs)> port-paging 1
Nvox::Fxs: Start paging FXS port 1.
```

```
(nvox-fxs)> no port-paging
Nvox::Fxs: Stop paging FXS ports.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox fxs port-paging command has been introduced. |

C.8.8 nvox fxs pulse-dial-mode

Description

Set the pulse detection mode on the FXS ports. By default, 1 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-fxs)> pulse-dial-mode <mode>
```

```
(nvox-fxs)> no pulse-dial-mode
```

Arguments

| Argument | Value | Description |
|----------|-------|--|
| mode | 0 | Pulse dialing is not detected. |
| | 1 | Pulse dialing is not detected during a call. |
| | 2 | Pulse dialing is detected all the time. |

Example

```
(nvox-fxs)> pulse-dial-mode 2
Nvox::Manager: Set FXS Pulse dialing mode to "2".
```

```
(nvox-fxs)> no pulse-dial-mode
Nvox::Manager: Reset FXS Pulse dialing mode to 1.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox fxs pulse-dial-mode command has been introduced. |

C.8.9 nvox fxs unmute-timer

Description Set the timer to delay the sound on the FXS ports in milliseconds after connecting the audio channel during a call. The turn-on delay helps to eliminate noises and other unwanted sounds when answering a call. By default, the 200 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-fxs)> unmute-timer <timer>
(nvox-fxs)> no unmute-timer
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| timer | <i>Integer</i> | Timer value in milliseconds. Can take values in the range from 0 to 5000. |

Example

```
(nvox-fxs)> unmute-timer 300
Nvox::Manager: Set FXS Delay before unmuting the voice channel ►
to "300".
```

```
(nvox-fxs)> no unmute-timer
Nvox::Manager: Reset FXS Delay before unmuting the voice channel.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox fxs unmute-timer command has been introduced. |

C.9 nvox parallel accept

Description Set the code to answer a parallel incoming call. Dial this code to answer a call that comes in during a call. By default, the R value is used.

Command with **no** prefix disables the answer to a parallel incoming call function.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> parallel accept <accept>
```

```
(nvox)> no parallel accept
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| accept | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,* or #. The second and third characters are numbers from 0 to 9 or characters R,* or #. |

Example

```
(nvox)> parallel accept **R
Nvox::Manager: Handset info "012345ABCD" created.
```

```
(nvox)> no parallel accept
Nvox::Manager: Disabled an action to accept a call.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox parallel accept command has been introduced. |

C.10 nvox parallel disable

Description

Disable support for parallel calls on the Keenetic telephone station. By default, the parallel calls are enabled.

Command with **no** prefix enables support for parallel calls.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox)> parallel disable
```

```
(nvox)> no parallel disable
```

Example

```
(nvox)> parallel disable
Nvox::Manager: Disabled parallel calls.
```

```
(nvox)> no parallel disable
Nvox::Manager: Enabled parallel calls.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox parallel disable command has been introduced. |

C.11 nvox parallel call-external

Description Set the code to create a parallel outgoing external call. To call another caller during a call, dial this code, then the caller's number. By default, the R value is used.

Command with **no** prefix disables the parallel outgoing external call function.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> parallel call-external <call-external>
```

```
(nvox)> no parallel call-external
```

Arguments

| Argument | Value | Description |
|---------------|---------------|---|
| call-external | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,*or #. The second and third characters are numbers from 0 to 9 or characters R,*or #. |

Example

```
(nvox)> parallel call-external **R
Nvox::Manager: "**R" sequence set to start an external call.
```

```
(nvox)> no parallel call-external
Nvox::Manager: Disabled an action to start an external call.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox parallel call-external command has been introduced. |

C.12 nvox parallel call-internal

Description Set the code to create a parallel outgoing internal call. To call another phone port or DECT-handset during a call, dial this code, then the extension number of the port or handset. By default, the * value is used.

Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> parallel call-internal <call-internal>
```

```
(nvox)> no parallel call-internal
```

Arguments

| Argument | Value | Description |
|---------------|---------------|---|
| call-internal | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,*or#. The second and third characters are numbers from 0 to 9 or characters R,*or#. |

Example

```
(nvox)> parallel call-internal ***
Nvox::Manager: "****" sequence set to start an internal call.
```

```
(nvox)> no parallel call-internal
Nvox::Manager: Disabled an action to start an internal call.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox parallel call-internal command has been introduced. |

C.13 nvox parallel hold-resume

Description

Configure code to put on hold and unholding a call on phone during a conversation. Dial this code during the call to put the caller on hold. To remove the hold and continue the call, dial this code again. By default, the R value is used.

Command with **no** prefix disables this feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox)> parallel hold-resume <hold-resume>
```

```
(nvox)> no parallel hold-resume
```

Arguments

| Argument | Value | Description |
|-------------|---------------|---|
| hold-resume | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,*or#. The second and third characters are numbers from 0 to 9 or characters R,*or#. |

Example

```
(nvox)> parallel hold-resume **R
Nvox::Manager: "**R" sequence set to hold or resume a call.
```

```
(nvox)> no parallel hold-resume
Nvox::Manager: Disabled an action to hold or resume a call.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox parallel hold-resume command has been introduced. |

C.14 nvox parallel intercept

Description Configure code to intercept the call. Dial this code, which to transfer the caller from another handset to this handset. When incoming call to the other handset, dial this code to answer the call. By default, the R value is used.

Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> parallel intercept <intercept>
(nvox)> no parallel intercept
```

Arguments

| Argument | Value | Description |
|-----------|---------------|---|
| intercept | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,*or#. The second and third characters are numbers from 0 to 9 or characters R,*or#. |

Example

```
(nvox)> parallel intercept **R
Nvox::Manager: "**R" sequence set to intercept a call.
```

```
(nvox)> no parallel intercept
Nvox::Manager: Disabled an action to intercept a call.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox parallel intercept command has been introduced. |

C.15 nvox parallel reject

Description Configure code to reject an incoming parallel call. Dial this code to reject a call that comes in during a call. By default, the # value is used.

Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> parallel intercept <reject>
```

```
(nvox)> no parallel intercept
```

Arguments

| Argument | Value | Description |
|----------|--------|---|
| reject | String | A string from 1 to 3 characters in length. The first character is R,*or #. The second and third characters are numbers from 0 to 9 or characters R,*or #. |

Example

```
(nvox)> parallel reject ***
Nvox::Manager: "***#" sequence set to reject a call.
```

```
(nvox)> no parallel reject
Nvox::Manager: Disabled an action to reject a call.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox parallel reject command has been introduced. |

C.16 nvox parallel release-active

Description Configure code to end of an active parallel call. Dial this code to end an active call and continue the conversation with the caller on hold. By default, the # value is used.

Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> parallel release-active <release-active>
```

```
(nvox)> no parallel release-active
```

Arguments

| Argument | Value | Description |
|----------------|---------------|---|
| release-active | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,*or#. The second and third characters are numbers from 0 to 9 or characters R,*or#. |

Example

```
(nvox)> parallel release-active **1
Nvox::Manager: "**1" sequence set to release an active call.
```

```
(nvox)> no parallel release-active
Nvox::Manager: Disabled an action to release an active call.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox parallel release-active command has been introduced. |

C.17 nvox parallel release-passive

Description

Configure code to end of a parallel call on hold. Dial this code to end the connection with the caller on hold and continue the conversation with the current caller. By default, the # value is used.

Command with **no** prefix disables this feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox)> parallel release-passive <release-passive>
```

```
(nvox)> no parallel release-passive
```

Arguments

| Argument | Value | Description |
|-----------------|---------------|---|
| release-passive | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,*or#. The second and third characters are numbers from 0 to 9 or characters R,*or#. |

Example

```
(nvox)> parallel release-passive **0
Nvox::Manager: "**0" sequence set to release a passive call.
```

```
(nvox)> no parallel release-passive
Nvox::Manager: Disabled an action to release a passive call.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox parallel release-passive command has been introduced. |

C.18 nvox parallel toggle

Description

Configure code to switch between two parallel calls. Dial this code to continue a call on hold and put the current call on hold. By default, the R value is used.

Command with **no** prefix disables this feature.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox)> parallel toggle <toggle>
```

```
(nvox)> no parallel toggle
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| toggle | <i>String</i> | A string from 1 to 3 characters in length. The first character is R,*or #. The second and third characters are numbers from 0 to 9 or characters R,*or #. |

Example

```
(nvox)> parallel toggle **5
Nvox::Manager: "**5" sequence set to toggle a call.
```

```
(nvox)> no parallel toggle
Nvox::Manager: Disabled an action to toggle a call.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox parallel toggle command has been introduced. |

C.19 nvox parallel transfer

Description

Configure code to transfer the caller on hold to another caller or phone port/DECT-handset. Dial this code to connect the caller on hold with the caller who is talking to you at the moment. By default, the * value is used.

Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> parallel transfer <transfer>
(nvox)> no parallel transfer
```

Arguments

| Argument | Value | Description |
|----------|--------|---|
| transfer | String | A string from 1 to 3 characters in length. The first character is R,*or#. The second and third characters are numbers from 0 to 9 or characters R,*or#. |

Example

```
(nvox)> parallel transfer ***
Nvox::Manager: "****" sequence set to transfer a call.
```

```
(nvox)> no parallel transfer
Nvox::Manager: Disabled an action to transfer a call.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox parallel transfer command has been introduced. |

C.20 nvox phone

Description Access to a group of commands to configure the FXS ports and DECT handsets.

Prefix no No

Change settings No

Multiple input No

Group entry (nvox - phone)

Synopsis

```
(config)> nvox phone
```

Example

```
(config)> nvox phone
Core::Configurator: Done.
(nvox - phone)>
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox phone command has been introduced. |

C.20.1 nvox phone cadence

Description

Set the parameters for one of the six ringtones, each of which can be linked to a specific type of incoming call (external, internal, paging, call from a particular number). Such a setting will allow you to identify the type of call by the sound of the ringtone.

Default values:

| Ringtone N | active1 | passive1 | active2 | passive2 | active3 | passive3 |
|------------|---------|----------|---------|----------|---------|----------|
| 0 | 400 | 500 | 400 | 2000 | 0 | 0 |
| 1 | 1000 | 4000 | 0 | 0 | 0 | 0 |
| 2 | 400 | 500 | 0 | 0 | 0 | 0 |
| 3 | 400 | 2000 | 1200 | 1200 | 0 | 0 |
| 4 | 400 | 500 | 400 | 2000 | 2000 | 2000 |
| 5 | 4000 | 2000 | 0 | 0 | 0 | 0 |

Command with **no** prefix resets settings to default.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(nvox-phone)> cadence <cadence> <active1> <passive1> <active2>
<passive2> <active3> <passive3>
```

```
(nvox-phone)> no cadence [<cadence>]
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| cadence | <i>Integer</i> | Ringtone number in the range from 0 to 5. |
| active1 | <i>Integer</i> | First signal duration in the range from 200 to 5000 ms or 0. |
| passive1 | <i>Integer</i> | Second pause duration in the range from 200 to 5000 ms or 0. |
| active2 | <i>Integer</i> | Second signal duration in the range from 200 to 5000 ms or 0. |
| passive2 | <i>Integer</i> | First pause duration in the range from 200 to 5000 ms or 0. |

| Argument | Value | Description |
|----------|----------------|--|
| active3 | <i>Integer</i> | Third signal duration in the range from 200 to 5000 ms or 0. |
| passive3 | <i>Integer</i> | Third pause duration in the range from 200 to 5000 ms or 0. |

Example

```
(nvox-phone)> cadence 1 800 320 0 0 0 0
Nvox::Phone: Set phone cadence 1 to 800/320, 0/0, 0/0 ►
(active/passive periods).
```

```
(nvox-phone)> no cadence 1
Nvox::Phone: Reset phone cadence 1 to 1000/4000, 0/0, 0/0 ►
(active/passive periods).
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox phone cadence command has been introduced. |

C.20.2 nvox phone dial-digit-timer

Description

Set the timer in milliseconds to wait for the next digit to be dialed in the dialing mode during an outgoing call. When the timer countdown finishes, the outgoing call is made on the dialed number. By default, 5000 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-phone)> dial-digit-timer <timer>
```

```
(nvox-phone)> no dial-digit-timer
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timer | <i>Integer</i> | The timer duration is in the range from 100 to 10000 ms. |

Example

```
(nvox-phone)> dial-digit-timer 7000
Nvox::Manager: Set dial digit timer.
```

```
(nvox-phone)> no dial-digit-timer
Nvox::Manager: Reset dial digit timer.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox phone dial-digit-timer command has been introduced. |

C.20.3 nvox phone intercom-cadence

Description

Set a ringtone for internal calls. By default, 0 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-phone)> intercom-cadence <cadence>
```

```
(nvox-phone)> no intercom-cadence
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| cadence | <i>Integer</i> | Ringtone number in the range from 0 to 5. |

Example

```
(nvox-phone)> intercom-cadence 4  
Nvox::Phone: Set intercom cadence to 4.
```

```
(nvox-phone)> no intercom-cadence  
Nvox::Phone: Reset intercom cadence to 0.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox phone intercom-cadence command has been introduced. |

C.20.4 nvox phone offhook-timer

Description

Set the timer in milliseconds to wait for the first digit to be dialed after activating the talk mode for an outgoing call. When the timer countdown is over, the waiting stops and a short beep sounds. By default, 10000 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-phone)> offhook-timer <timer>
```

```
(nvox-phone)> no offhook-timer
```

| Argument | Value | Description |
|----------|----------------|--|
| timer | <i>Integer</i> | The timer duration is in the range from 100 to 10000 ms. |

Example

```
(nvox-phone)> offhook-timer 8000  
Nvox::Manager: Set offhook timer.
```

```
(nvox-phone)> no offhook-timer  
Nvox::Manager: Reset offhook timer.
```

| Version | Description |
|---------|--|
| 3.05 | The nvox phone offhook-timer command has been introduced. |

C.20.5 nvox phone paging-cadence

Description Set a ringtone for paging. By default, 0 value is used.
Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-phone)> paging-cadence <cadence>
```

```
(nvox-phone)> no paging-cadence
```

| Argument | Value | Description |
|----------|----------------|---|
| cadence | <i>Integer</i> | Ringtone number in the range from 0 to 5. |

Example

```
(nvox-phone)> paging-cadence 3  
Nvox::Phone: Set paging cadence to 3.
```

```
(nvox-phone)> no paging-cadence  
Nvox::Phone: Reset paging cadence to 0.
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The nvox phone paging-cadence command has been introduced. |

C.21 nvox postdial key

Description Set the postdial key. The part of the number to the right of the postdial key is transmitted to the line after connecting to the number to the left of this key. By default, ******* value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> postdial key <key>
```

```
(nvox)> no postdial key
```

| Arguments | Argument | Value | Description |
|-----------|----------|---------------|--|
| | key | <i>String</i> | A postdial key of 1 to 3 digits in the range from 0 to 9 or R, *, # characters in any combination. |

Example

```
(nvox)> postdial key **#  
Nvox::Manager: Set postdial key.
```

```
(nvox)> no postdial key  
Nvox::Manager: Reset postdial key.
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The nvox postdial key command has been introduced. |

C.22 nvox postdial mid-timer

Description Set the duration of pauses between digits transmitted to the line during postdialing. By default, 250 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

| Multiple input | No | | | | | | |
|-----------------------|---|---|-------------|-------------|---|----------------|---|
| Synopsis | <pre>(nvox)> postdial mid-timer <timeout></pre> <pre>(nvox)> no postdial mid-timer</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>timeout</td> <td><i>Integer</i></td> <td>Pause duration in the range from 250 to 10000 ms.</td> </tr> </tbody> </table> | Argument | Value | Description | timeout | <i>Integer</i> | Pause duration in the range from 250 to 10000 ms. |
| Argument | Value | Description | | | | | |
| timeout | <i>Integer</i> | Pause duration in the range from 250 to 10000 ms. | | | | | |
| Example | <pre>(nvox)> postdial mid-timer 300</pre> <pre>Nvox::Manager: Set postdial mid timer.</pre> <pre>(nvox)> no postdial mid-timer</pre> <pre>Nvox::Manager: Reset postdial mid timer.</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>3.05</td> <td>The nvox postdial mid-timer command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 3.05 | The nvox postdial mid-timer command has been introduced. | | |
| Version | Description | | | | | | |
| 3.05 | The nvox postdial mid-timer command has been introduced. | | | | | | |

C.23 nvox postdial post-timer

| Description | Set the sound delay timer after postdialing. By default, 250 value is used. Command with no prefix resets setting to default. | | | | | | |
|------------------------|---|---|-------|-------------|---------|----------------|---|
| Prefix no | Yes | | | | | | |
| Change settings | Yes | | | | | | |
| Multiple input | No | | | | | | |
| Synopsis | <pre>(nvox)> postdial post-timer <timeout></pre> <pre>(nvox)> no postdial post-timer</pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>timeout</td> <td><i>Integer</i></td> <td>Delay duration in the range from 250 to 10000 ms.</td> </tr> </tbody> </table> | Argument | Value | Description | timeout | <i>Integer</i> | Delay duration in the range from 250 to 10000 ms. |
| Argument | Value | Description | | | | | |
| timeout | <i>Integer</i> | Delay duration in the range from 250 to 10000 ms. | | | | | |
| Example | <pre>(nvox)> postdial post-timer 500</pre> <pre>Nvox::Manager: Set postdial post timer.</pre> <pre>(nvox)> no postdial post-timer</pre> <pre>Nvox::Manager: Reset postdial post timer.</pre> | | | | | | |

| History | Version | Description |
|---------|---------|--|
| | 3.05 | The nvox postdial post-timer command has been introduced. |

C.24 nvox postdial pre-timer

Description Set the postdialing delay after a connection is established (SIP 200 OK). By default, 6000 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox)> postdial pre-timer <timeout>
```

```
(nvox)> no postdial pre-timer
```

| Arguments | Argument | Value | Description |
|-----------|----------|----------------|---|
| | timeout | <i>Integer</i> | Delay duration in the range from 250 to 10000 ms. |

Example

```
(nvox)> postdial pre-timer 8000
Nvox::Manager: Set postdial pre timer.
```

```
(nvox)> no postdial pre-timer
Nvox::Manager: Reset postdial pre timer.
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The nvox postdial pre-timer command has been introduced. |

C.25 nvox sip

Description Access to a group of commands to configure the selected SIP line. If the line is not found, the command tries to create it. The maximum number of telephone lines supported by the telephone station is 10.

Command with **no** prefix deletes the line.

Prefix no Yes

Change settings No

| Multiple input | Yes | | | | | | |
|-----------------------|--|---|-------------|-------------|--|--------|---|
| Group entry | (nvox-sip) | | | | | | |
| Synopsis | <pre>(nvox)> sip <id></pre> <pre>(nvox)> no sip <id></pre> | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>id</td> <td>String</td> <td>SIP line identifier of Latin letters and numbers from 0 to 9. The maximum string length is 64 characters.</td> </tr> </tbody> </table> | Argument | Value | Description | id | String | SIP line identifier of Latin letters and numbers from 0 to 9. The maximum string length is 64 characters. |
| Argument | Value | Description | | | | | |
| id | String | SIP line identifier of Latin letters and numbers from 0 to 9. The maximum string length is 64 characters. | | | | | |
| Example | <pre>(nvox)> sip sipline1</pre> <pre>Nvox::Manager: Created SIP line "sipline1".</pre> <pre>(nvox-sip)></pre> <pre>(nvox)> no sip sipline1</pre> <pre>Nvox::Manager: Deleted SIP line "sipline1".</pre> | | | | | | |
| History | <table border="1"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2.00</td> <td>The nvox sip command has been introduced.</td> </tr> </tbody> </table> | Version | Description | 2.00 | The nvox sip command has been introduced. | | |
| Version | Description | | | | | | |
| 2.00 | The nvox sip command has been introduced. | | | | | | |

C.25.1 nvox sip audio-protocol

| Description | <p>Select the audio transport protocol for the SIP line. By default, RTP value is used.</p> <p>Command with no prefix resets setting to default.</p> | | | | | | | | | | |
|------------------------|--|--|-------|-------------|----------|-----|---------------|---------|----------------|------|--|
| Prefix no | Yes | | | | | | | | | | |
| Change settings | Yes | | | | | | | | | | |
| Multiple input | No | | | | | | | | | | |
| Synopsis | <pre>(nvox-sip)> audio-protocol <protocol></pre> <pre>(nvox-sip)> no audio-protocol</pre> | | | | | | | | | | |
| Arguments | <table border="1"> <thead> <tr> <th>Argument</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td rowspan="3">protocol</td> <td>rtp</td> <td>RTP protocol.</td> </tr> <tr> <td>srtplib</td> <td>SRTP protocol.</td> </tr> <tr> <td>both</td> <td>Where possible, SRTP is used, otherwise RTP.</td> </tr> </tbody> </table> | Argument | Value | Description | protocol | rtp | RTP protocol. | srtplib | SRTP protocol. | both | Where possible, SRTP is used, otherwise RTP. |
| Argument | Value | Description | | | | | | | | | |
| protocol | rtp | RTP protocol. | | | | | | | | | |
| | srtplib | SRTP protocol. | | | | | | | | | |
| | both | Where possible, SRTP is used, otherwise RTP. | | | | | | | | | |

Example (nvox-sip)> **audio-protocol srtp**
Nvox::Manager: Set SIP line sipline1 audio protocol to "srtp".

(nvox-sip)> **no audio-protocol**
Nvox::Manager: Reset SIP line sipline1 audio protocol.

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip audio-protocol command has been introduced. |

C.25.2 nvox sip blacklist

Description Create a blacklist of numbers from which incoming calls are prohibited through this line. By default, blacklist is not configured.

When you receive an incoming call from a subscriber whose number is blacklisted and is not on the whitelist, the phones and handsets do not ring. The caller is notified that the user is busy, and the call information is recorded in the call log and system log.

When checking the number against the blacklist, the system sequentially compares the number with each of the numbers and patterns in the line from left to right until the first match.

When the command is executed, the previously configured blacklist is overwritten with the new list.

Command with **no** prefix removes the blacklist.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis (nvox-sip)> **blacklist** <map>

(nvox-sip)> **no blacklist**

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| map | <i>String</i> | A string of up to 600 characters in length. Phone numbers and number patterns are separated from each other by the character. Valid characters: 01234567890*#+ABCDx[] -.> |

Example (nvox-sip)> **blacklist 1234x**
Nvox::Manager: Set SIP line 1 blacklist to "1234x".

```
(nvox-sip)> blacklist +749[589]1234567
Nvox::Manager: Set SIP line 1 blacklist to "+749[589]1234567".
```

```
(nvox-sip)> blacklist [1-69]x.|+792[67]x.|000x.|1234567
Nvox::Manager: Set SIP line 1 blacklist to ►
"[1-69]x.|+792[67]x.|000x.|1234567".
```

```
(nvox-sip)> no blacklist
Nvox::Manager: Reset SIP line 1 blacklist.
```

History

| Version | Description |
|---------|--|
| 4.01 | The nvox sip blacklist command has been introduced. |

C.25.3 nvox sip cadence

Description Select the ringtone that will sound for incoming calls on this line. By default, the 1 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (nvox-sip)> **cadence** <cadence>

| (nvox-sip)> **no cadence**

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| cadence | <i>Integer</i> | Ringtone number in the range from 0 to 5. |

Example

```
(nvox-sip)> cadence 3
Nvox::Manager: Set SIP line 1 Cadence for incoming calls (0 is ►
for internal calls) to "3".
```

```
(nvox-sip)> no cadence
Nvox::Manager: Reset SIP line 1 Cadence for incoming calls (0 ►
is for internal calls).
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip cadence command has been introduced. |

C.25.4 nvox sip cadence-rule

Description Set a rule to select a melody that will sound for incoming calls from specific numbers on this line. You can recognize by the sound of the ringtone who is calling you.

Command with **no** prefix removes the rule.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(nvox-sip)> cadence-rule <rule> <cadence> <digitmap>
(nvox-sip)> no cadence-rule
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| rule | <i>Integer</i> | Rule number of 0 to 2. |
| cadence | <i>Integer</i> | Ringtone number of 0 to 5. |
| digitmap | <i>String</i> | The pattern to which the caller's number must correspond. For more information see Syntax of prefix substitution rules . |

Example

```
(nvox-sip)> cadence-rule 0 4 4951234567
Nvox::Sip: Add SIP sipline1 cadence rule 0: cadence 4 for digit map "4951234567".
```

```
(nvox-sip)> no cadence-rule 0
Nvox::Sip: Reset SIP sipline1 cadence rule 0.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip cadence-rule command has been introduced. |

C.25.5 nvox sip codec

Description Allow use of audio codec for calls on this line. When configuring codecs with this command, you should consider:

- 1) Keenetic Linear only supports codecs G.711a and G.711u;
- 2) Codec G.722 only supports DECT-handset with support CAT-iq 1/CAT-iq 2.x (handset Gigaset).

Command with **no** prefix denies the use of this codec or resets configuration.

Prefix no Yes

Change settings Yes**Multiple input** Yes

Synopsis

```
(nvox-sip)> codec <codec>
```

```
(nvox-sip)> no codec
```

Arguments

| Argument | Value | Description |
|----------|-------|----------------------------|
| codec | g711u | Codec G.711u (ULAW, PCMU). |
| | g711a | Codec G.711a (ALAW, PCMA). |
| | g726 | Codec G.726-32. |
| | g722 | Codec G.722. |

Example

```
(nvox-sip)> codec g726  
Nvox::Manager: Added g726 to SIP line "sipline1" codecs.
```

```
(nvox-sip)> no codec g726  
Nvox::Manager: Removed g726 from SIP line "sipline1" codecs.
```

```
(nvox-sip)> no codec  
Nvox::Manager: Reset SIP line "sipline1" codecs.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip codec command has been introduced. |

C.25.6 nvox sip deny-interception

Description Prohibit interception of connections on this line (user 1 is on the phone, user 2 dials a special code, intercepts the call and talks with the interlocutor of the user 1). By default, the connection interception is allowed.

Command with **no** prefix allows the connection interception.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(nvox-sip)> deny-interception
```

```
(nvox-sip)> no deny-interception
```

Example

```
(nvox-sip)> deny-interception  
Nvox::Manager: Set SIP line sipline1 deny interception to "1".
```

```
(nvox-sip)> no deny-interceptiond
Nvox::Manager: Set SIP line sipline1 deny interception to "0".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip deny-interception command has been introduced. |

C.25.7 nvox sip deny-pickup

Description

Prohibit interception of incoming calls on this line (user 1 is on the phone, user 2 dials a special code on his phone/DECT-handset and answers the phone instead of user 1). By default, the incoming calls interception is allowed.

Command with **no** prefix allows the incoming calls interception.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> deny-pickup
```

```
(nvox-sip)> no deny-pickup
```

Example

```
(nvox-sip)> deny-pickup
Nvox::Manager: Set SIP line sipline1 deny pickup to "1".
```

```
(nvox-sip)> no deny-pickup
Nvox::Manager: Set SIP line sipline1 deny pickup to "0".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip deny-pickup command has been introduced. |

C.25.8 nvox sip digit-map

Description

Create dialing rules the number, outgoing calls to which are allowed through this line. If the dialed number doesn't match any of the dialing rules, the outgoing call will be dismiss. If there are no dialing rules, calls to any number are allowed. By default, dialing rules is not configured.

For more information see [Syntax of prefix substitution rules](#).

Command with **no** prefix removes the dialing rules.

Prefix no

Yes

Change settings Yes**Multiple input** No

Synopsis

```
(nvox-sip)> digit-map <map>
(nvox-sip)> no digit-map
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| map | <i>String</i> | String to 250 characters long. Valid characters: 01234567890*#+ABCDxT[]() >.- |

Example

```
(nvox-sip)> digit-map 8[49]xxxxxxxx|10xx|*xx#
Nvox::Manager: Set SIP line sipline1 digit map to ►
"8[49]xxxxxxxx|10xx|*xx#".
```

```
(nvox-sip)> no digit-map
Nvox::Manager: Reset SIP line sipline1 digit map.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip digit-map command has been introduced. |

C.25.9 nvox sip disable

Description Shutdown the telephone line. If the line is off, outgoing and incoming calls cannot be made through this line.

Command with **no** prefix enables the telephone line.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(nvox-sip)> disable
(nvox-sip)> no disable
```

Example

```
(nvox-sip)> deny-pickup
Nvox::Manager: Disabled SIP line "sipline1".
```

```
(nvox-sip)> no deny-pickup
Nvox::Manager: Enabled SIP line "sipline1".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip disable command has been introduced. |

C.25.10 nvox sip disable-extended-keepalive

Description Disable Extended Keep Alive feature, which sends keepalive packets to all servers resolved from the DNS SRV record. By default, the feature is enabled.

Note: If Extended Keep Alive is disabled, keepalive packets should only be sent to the server where SIP registration is performed.

Command with **no** prefix enables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> disable-extended-keepalive
(nvox-sip)> no disable-extended-keepalive
```

Example

```
(nvox-sip)> disable-extended-keepalive
Nvox::Manager: Set SIP line test disable extended keepalive to ►
"1".

(nvox-sip)> no disable-extended-keepalive
Nvox::Manager: Reset SIP line test disable extended keepalive ►
to 0.
```

History

| Version | Description |
|---------|---|
| 4.01 | The nvox sip disable-extended-keepalive command has been introduced. |

C.25.11 nvox sip disable-force-registration-retry

Description Disable sending retry SIP registration requests in situations where registration was rejected or there is no response to the request. By default, the request sending is enabled.

Command with **no** prefix enables retry registration requests.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> disable-force-registration-retry
(nvox-sip)> no disable-force-registration-retry
```


Example

```
(nvox-sip)> disable-force-registration-retry
Nvox::Manager: Set SIP line sipline1 disable force registration ►
retry to "1".
```

```
(nvox-sip)> no disable-force-registration-retry
Nvox::Manager: Reset SIP line sipline1 disable force registration ►
retry.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip disable-force-registration-retry command has been introduced. |

C.25.12 nvox sip disable-stun

Description Shutdown the STUN client used to successfully pass SIP messages and RTP audio data through NAT. By default, STUN client is enabled.

Command with **no** prefix enables the STUN client.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> disable-stun
```

```
(nvox-sip)> no disable-stun
```

Example

```
(nvox-sip)> disable-stun
Nvox::Manager: Set SIP line sipline1 disable STUN to "1".
```

```
(nvox-sip)> no disable-stun
Nvox::Manager: Reset SIP line sipline1 disable STUN.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip disable-stun command has been introduced. |

C.25.13 nvox sip display-name

Description Specify the name that will be displayed on the phone of the called party during an outgoing call on this line. By default, the name is not specified.

Command with **no** prefix removes the name.

Prefix no Yes

Change settings Yes**Multiple input** No

Synopsis

```
(nvox-sip)> display-name <name>
```

```
(nvox-sip)> no display-name
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| name | <i>String</i> | String of printed symbols of the set ASCII. Maximum string length is 100 characters. |

Example

```
(nvox-sip)> display-name office_12  
Nvox::Manager: Set SIP line sipline1 display name to "office_12".
```

```
(nvox-sip)> no display-name  
Nvox::Manager: Reset SIP line sipline1 display name.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip display-name command has been introduced. |

C.25.14 nvox sip dnd

Description

Enable DND (Do Not Disturb) mode for this line. When DND is enabled, phones and handsets do not ring on incoming calls, callers are receive a notification that the user is busy and information about missed calls is entered into the call log and system log. By default, the setting is disabled.

Command with **no** prefix disables DND (Do Not Disturb) function.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(nvox-sip)> dnd
```

```
(nvox-sip)> no dnd
```

Example

```
(nvox-sip)> dnd  
Nvox::Manager: Set SIP line sipline1 Do Not Disturb to "1".
```

```
(nvox-sip)> no dnd  
Nvox::Manager: Reset SIP line sipline1 Do Not Disturb.
```

| History | Version | Description |
|---------|---------|--|
| | 3.05 | The nvox sip dnd command has been introduced. |

C.25.15 nvox sip dnd-schedule

Description Assign a schedule work to the DND (Do Not Disturb). Schedule must be created and customized with **schedule action** command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> dnd-schedule <schedule>
(nvox-sip)> no dnd-schedule
```

| Arguments | Argument | Value | Description |
|-----------|----------|-----------------|---|
| | schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(nvox-sip)> dnd-schedule
Nvox::Sip: SIP line "sipline1" set schedule "schedule0" for dnd.
```

```
(nvox-sip)> no dnd-schedule
Nvox::Sip: SIP line "sipline1" delete schedule for dnd.
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The nvox sip dnd-schedule command has been introduced. |

C.25.16 nvox sip domain

Description Specify the domain name of the IP Telephony operator to which this line is connected.

Command with **no** prefix removes the domain name.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (nvox-sip)> **domain** <domain>

| (nvox-sip)> **no domain**

Arguments

| Argument | Value | Description |
|----------|--------|--|
| domain | String | The domain name. Maximum domain name length is 100 characters. |

Example

```
(nvox-sip)> domain voipprovider
Nvox::Manager: Set SIP line sipline1 domain to "voipprovider".
```

```
(nvox-sip)> no domain
Nvox::Manager: Reset SIP line sipline1 domain.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip domain command has been introduced. |

C.25.17 nvox sip dtmf-flash-signal

Description

Enable FLASH signal transmission (calibrated loop plume) in SIP INFO messages. By default, the feature is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis | (nvox-sip)> **dtmf-flash-signal**

| (nvox-sip)> **no dtmf-flash-signal**

Example

```
(nvox-sip)> dtmf-flash-signal
Nvox::Manager: Set SIP line sipline1 DTMF flash signal to "1".
```

```
(nvox-sip)> no dtmf-flash-signal
Nvox::Manager: Reset SIP line sipline1 DTMF flash signal.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip dtmf-flash-signal command has been introduced. |

C.25.18 nvox sip dtmf-mode

Description Set the DTMF transmission method for this line. By default, method `rfc2833` is used.

Command with **no** prefix resets transmission method to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> dtmf-mode <mode>
(nvox-sip)> no dtmf-mode
```

Arguments

| Argument | Value | Description |
|----------|----------|--|
| mode | rfc2833 | Transmission of DTMF signals by RTP protocol messages. |
| | sip-info | Transmission of DTMF signals with SIP INFO requests. |
| | inband | Transmission of DTMF signals in the media stream along with voice. Can only be used with G.711a and G.711u codecs. |

Example

```
(nvox-sip)> dtmf-mode rfc2833
Nvox::Manager: Set SIP line sipline1 DTMF mode to "rfc2833".
```

```
(nvox-sip)> no dtmf-mode
Nvox::Manager: Reset SIP line sipline1 DTMF mode.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip dtmf-mode command has been introduced. |

C.25.19 nvox sip enable-blacklist

Description Enable blacklist. By default, setting is disabled.

Command with **no** prefix disables the setting.

Note: The **nvox sip blacklist** command is used to create a blacklist.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> enable-blacklist
(nvox-sip)> no enable-blacklist
```

Example

```
(nvox-sip)> enable-blacklist
Nvox::Manager: Set SIP line 1 Enable blacklist for a line to "1".

(nvox-sip)> no enable-blacklist
Nvox::Manager: Set SIP line 1 Enable blacklist for a line to "0".
```

History

| Version | Description |
|---------|---|
| 4.01 | The nvox sip enable-blacklist command has been introduced. |

C.25.20 nvox sip enable-whitelist

Description Enable whitelist. By default, setting is disabled.

Command with **no** prefix disables the setting.

Note: The **nvox sip whitelist** command is used to create a whitelist.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> enable-whitelist
(nvox-sip)> no enable-whitelist
```

Example

```
(nvox-sip)> enable-whitelist
Nvox::Manager: Set SIP line 1 Enable whitelist for a line to "1".

(nvox-sip)> no enable-whitelist
Nvox::Manager: Set SIP line 1 Enable whitelist for a line to "0".
```

History

| Version | Description |
|---------|---|
| 4.01 | The nvox sip enable-whitelist command has been introduced. |

C.25.21 nvox sip forward

Description Enable unconditional forwarding of incoming calls to a specified SIP ID through this line. By default, the feature is disabled.

Command with **no** prefix resets the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> forward <number>
(nvox-sip)> no forward
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| number | <i>String</i> | The caller ID consists of ASCII characters (not more than 100 characters). The call is forwarded to the SIP URL sip:sipid@domain. |

Example

```
(nvox-sip)> forward +49301234567
Nvox::Manager: Set SIP line 1 unconditional forward to ►
"+49301234567".
```

```
(nvox-sip)> no forward
Nvox::Manager: Reset SIP line 1 unconditional forward.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip forward command has been introduced. |

C.25.22 nvox sip forward-if-busy

Description Enable forwarding of incoming calls to a specified SIP ID through this line, if the phones/DECT-handsets, which are allowed to make incoming calls from this line at the time of the call are busy.

Command with **no** prefix resets the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> forward-if-busy <{number}>
(nvox-sip)> no forward-if-busy
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| number | <i>String</i> | The caller ID consists of ASCII characters (not more than 100 characters). The call is forwarded to the SIP URL sip:sipid@domain. |

Example

```
(nvox-sip)> forward-if-busy +49301234567
Nvox::Manager: Set SIP line 1 forward if busy to "+49301234567".
```

```
(nvox-sip)> no forward-if-busy
Nvox::Manager: Reset SIP line 1 forward if busy.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip forward-if-busy command has been introduced. |

C.25.23 nvox sip forward-if-busy-schedule

Description

Assign a schedule for the forwarding of incoming calls on busy. Schedule must be created and customized with [schedule action](#) command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> forward-if-busy-schedule <schedule>
```

```
(nvox-sip)> no forward-if-busy-schedule
```

Arguments

| Argument | Value | Description |
|----------|-----------------|--|
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(nvox-sip)> forward-if-busy-schedule telephony-fwd-busy
Nvox::Sip: SIP line "1" set schedule "telephony-fwd-busy" for ►
forward-if-busy.
```

```
(nvox-sip)> no forward-if-busy-schedule
Nvox::Sip: SIP line "1" delete schedule for forward-if-busy.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip forward-if-busy-schedule command has been introduced. |

C.25.24 nvox sip forward-if-timeout

Description Enable forwarding of incoming calls to a specified SIP ID through this line, if the phones/DECT-handsets, which are allowed to make incoming calls from this line do not answer within a specified time.

Command with **no** prefix resets the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> forward-if-timeout <number> <timeout>
(nvox-sip)> no forward-if-timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| number | <i>String</i> | The caller ID consists of ASCII characters (not more than 100 characters). The call is forwarded to the SIP URL sip:sipid@domain. |
| timeout | <i>Integer</i> | Response time in the range from 1 to 60 seconds. |

Example

```
(nvox-sip)> forward-if-timeout +49301234567 10
Nvox::Manager: Set SIP line 1 forward timeout to "10".
```

```
(nvox-sip)> no forward-if-timeout
Nvox::Manager: Reset SIP line 1 forward timeout.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip forward-if-timeout command has been introduced. |

C.25.25 nvox sip forward-if-timeout-schedule

Description Assign a schedule for the forwarding of incoming calls on timeout. Schedule must be created and customized with **schedule action** command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> forward-if-timeout-schedule <schedule>
```

```
(nvox-sip)> no forward-if-timeout-schedule
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---|
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(nvox-sip)> forward-if-timeout-schedule telephony-fwd-timeout  
Nvox::Sip: SIP line "1" set schedule "telephony-fwd-timeout" for ▶  
forward-if-timeout.
```

```
(nvox-sip)> no forward-if-timeout-schedule  
Nvox::Sip: SIP line "1" delete schedule for forward-if-timeout.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip forward-if-timeout-schedule command has been introduced. |

C.25.26 nvox sip forward-schedule

Description

Enable unconditional forwarding by schedule. Schedule must be created and customized with **schedule action** command before execution.

Command with **no** prefix unbinds the schedule.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> forward-schedule <schedule>
```

```
(nvox-sip)> no forward-schedule
```

Arguments

| Argument | Value | Description |
|----------|-----------------|---|
| schedule | <i>Schedule</i> | The name of the schedule that was created with schedule group of commands. |

Example

```
(nvox-sip)> forward-schedule telephony-fwd  
Nvox::Sip: SIP line "1" set schedule "telephony-fwd" for forward.
```

```
(nvox-sip)> no forward-schedule  
Nvox::Sip: SIP line "1" delete schedule for forward.
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The nvox sip forward-schedule command has been introduced. |

C.25.27 nvox sip identity

Description Set the SIP user ID for this line received from your IP telephony provider. Command with **no** prefix removes SIP ID.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> identity <identity>
(nvox-sip)> no identity
```

| Arguments | Argument | Value | Description |
|-----------|----------|---------------|--|
| | identity | <i>String</i> | The caller ID consists of ASCII characters (not more than 100 characters). |

Example

```
(nvox-sip)> identity sipuser1001
Nvox::Manager: Set SIP line 1 identity to "sipuser1001".
```

```
(nvox-sip)> no identity
Nvox::Manager: Reset SIP line 1 identity.
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The nvox sip identity command has been introduced. |

C.25.28 nvox sip incoming-mask

Description Allow a telephone (Keenetic Linear) or DECT handset with a given ID to receive incoming calls on this line. By default, all phones and handsets are not allowed to receive incoming calls through this line.

Command with **no** prefix denies incoming calls for this handset.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(nvox-sip)> incoming-mask <ipui>
```

```
(nvox-sip)> no incoming-mask <ipui>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| ipui | 1 | Keenetic Linear Adapter Port 1 ID. |
| | 2 | Keenetic Linear Adapter Port 2 ID. |
| | <i>String</i> | Ten-digit DECT handset identifier (IPUI). Consists of 10 characters A, B, C, D, E, F and digits from 0 to 9. |

Example

```
(nvox-sip)> incoming-mask 01234ABCDE  
Nvox::Manager: Added phone 01234ABCDE to SIP "1" incoming-mask.
```

```
(nvox-sip)> no incoming-mask 01234ABCDE  
Nvox::Manager: Removed phone 01234ABCDE from SIP "1" ►  
incoming-mask.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip incoming-mask command has been introduced. |

C.25.29 nvox sip keepalive

Description

Set a timeout for sending keepalive messages to the SIP proxy server signal port to keep the server connection open through NAT. By default, 15 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> keepalive <keepalive>
```

```
(nvox-sip)> no keepalive
```

Arguments

| Argument | Value | Description |
|-----------|----------------|---|
| keepalive | <i>Integer</i> | Keepalive timeout in the range from 10 to 3600 seconds. 0 value disables the sending of keepalive messages. |

Example

```
(nvox-sip)> keepalive 50
Nvox::Manager: Set SIP line 1 keepalive to "50".
```

```
(nvox-sip)> no keepalive
Nvox::Manager: Reset SIP line 1 keepalive.
```

```
(nvox-sip)> keepalive 0
Nvox::Manager: Set SIP line 1 keepalive to "0".
```

| Version | Description |
|---------|--|
| 3.05 | The nvox sip keepalive command has been introduced. |

C.25.30 nvox sip lock-codec

Description Force a single codec for the connection by requesting re-INVITE when the remote party chooses multiple codecs.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> lock-codec
```

```
(nvox-sip)> no lock-codec
```

Example

```
(nvox-sip)> lock-codec
Nvox::Manager: Set SIP line 3 lock SIP audio codec to "1".
```

```
(nvox-sip)> no lock-codec
Nvox::Manager: Set SIP line 3 lock SIP audio codec to "0".
```

| Version | Description |
|---------|---|
| 3.05 | The nvox sip lock-codec command has been introduced. |

C.25.31 nvox sip login

Description Set SIP Auth ID — the name used for authentication on the IP-telephony provider's servers. By default, SIP Auth ID is not configured.

Command with **no** prefix removes the SIP Auth ID from the line parameters.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> login <login>
(nvox-sip)> no login
```

| Argument | Value | Description |
|----------|---------------|--|
| login | <i>String</i> | A string of ASCII characters. The maximum length of the string is 64 characters. |

Example

```
(nvox-sip)> login user1001
Nvox::Manager: Set SIP line 1 login to "user1001".
```

```
(nvox-sip)> no login
Nvox::Manager: Reset SIP line 1 login.
```

| Version | Description |
|---------|--|
| 3.05 | The nvox sip login command has been introduced. |

C.25.32 nvox sip name

Description Set the line name, which is displayed in the call log and system log. By default, the line name is not configured.

Command with **no** prefix removes the line name from the line parameters.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> name <name>
(nvox-sip)> no name
```

| Argument | Value | Description |
|----------|---------------|---|
| name | <i>String</i> | A string of ASCII characters. The maximum length of the string is 100 characters. |

Example

```
(nvox-sip)> name line-1001
Nvox::Manager: Set SIP line 3 line name to "line-1001".
```

```
(nvox-sip)> no name
Nvox::Manager: Reset SIP line 3 line name.
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The nvox sip name command has been introduced. |

C.25.33 nvox sip outgoing-mask

Description Allow a telephone (Keenetic Linear) or DECT handset with a given ID to perform outgoing calls via this line. By default, for all phones and handsets outgoing calls are denied via this line.

Command with **no** prefix denies outgoing calls for this handset.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(nvox-sip)> outgoing-mask <ipui>
(nvox-sip)> no outgoing-mask <ipui>
```

| Arguments | Argument | Value | Description |
|-----------|----------|---------------|--|
| | ipui | 1 | Keenetic Linear Adapter Port 1 ID. |
| | | 2 | Keenetic Linear Adapter Port 2 ID. |
| | | <i>String</i> | Ten-digit DECT handset identifier (IPUI). Consists of 10 characters A, B, C, D, E, F and digits from 0 to 9. |

Example

```
(nvox-sip)> outgoing-mask 1
Nvox::Manager: Added phone 1 to SIP "1" outgoing-mask.

(nvox-sip)> outgoing-mask 034725D054
Nvox::Manager: Added phone 034725D054 to SIP "1" outgoing-mask.

(nvox-sip)> no outgoing-mask 2
Nvox::Manager: Removed phone 2 from SIP "1" outgoing-mask.
```

| History | Version | Description |
|---------|---------|--|
| | 3.05 | The nvox sip outgoing-mask command has been introduced. |

C.25.34 nvox sip password

Description Set the password used for authentication on the IP-telephony provider's servers. By default, the password is not configured.

Command with **no** prefix removes the password from the line parameters.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> password <password>
(nvox-sip)> no password
```

Arguments

| Argument | Value | Description |
|----------|--------|--|
| password | String | A string of ASCII characters. The maximum length of the string is 64 characters. |

Example

```
(nvox-sip)> password 1234567
Nvox::Manager: Set SIP line 1 password.
```

```
(nvox-sip)> no password
Nvox::Manager: Reset SIP line 1 password.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip password command has been introduced. |

C.25.35 nvox sip priority

Description

Set the priority for this line. Line priorities are taken into account when selecting a line for an outgoing call: the system selects the line with the highest priority of those that are allowed for the phone or handset and have dialing rules that correspond to the dialed number.

Command with **no** prefix sets priority to 1 for this line, rearranging the priorities of the other lines accordingly if necessary.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> priority <priority>
(nvox-sip)> no priority
```


| Argument | Value | Description |
|----------|----------------|---|
| priority | <i>Integer</i> | The priority number in the range from 0 to 9, where 0 is the lowest priority; 9 — highest priority. |

Example

```
(nvox-sip)> priority 7
Nvox::Manager: Set SIP line 1 priority to "7".
```

```
(nvox-sip)> no priority
Nvox::Manager: Reset SIP line 1 priority.
```

| Version | Description |
|---------|---|
| 3.05 | The nvox sip priority command has been introduced. |

C.25.36 nvox sip proxy

Description Set the domain name or IP address of the IP telephony operator's SIP proxy for this line. By default, the SIP proxy is not configured.

Command with **no** prefix removes the SIP proxy from the line parameters.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> proxy <proxy>
```

```
(nvox-sip)> no proxy
```

| Argument | Value | Description |
|----------|---------------|---|
| proxy | <i>String</i> | Domain name or IP address. If the SIP proxy uses a non-standard port (other than 5060), it must be specified to the right of the domain name/IP address with a colon. |

Example

```
(nvox-sip)> proxy sip.proxy.local:5090
Nvox::Manager: Set SIP line 1 proxy URI to "sip.proxy.local:5090".
```

```
(nvox-sip)> no proxy
Nvox::Manager: Reset SIP line 1 proxy URI.
```

| Version | Description |
|---------|--|
| 3.05 | The nvox sip proxy command has been introduced. |

C.25.37 nvox sip reg-timeout

Description Set the SIP registration validity period on the IP-telephony operator's server, after which the registration should be resumed. This parameter can be changed during the registration process by the server. By default, 180 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> reg-timeout <timeout>
(nvox-sip)> no reg-timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | SIP registration validity period in the range from 10 to 3600 seconds. |

Example

```
(nvox-sip)> reg-timeout 1800
Nvox::Manager: Set SIP line 1 registration timeout to "1800".
```

```
(nvox-sip)> no reg-timeout
Nvox::Manager: Reset SIP line 1 registration timeout.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip reg-timeout command has been introduced. |

C.25.38 nvox sip registration-first-retry

Description Set the first SIP registration retry timeout. Registration attempts are repeated if the IP telephony operator's SIP server does not respond to SIP registration requests. By default, 120 value is used.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> registration-first-retry <timeout>
```

```
(nvox-sip)> no registration-first-retry
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | First SIP registration repeat timeout in the range from 0 to 1800 seconds. |

Example

```
(nvox-sip)> registration-first-retry 180
Nvox::Manager: Set SIP line 1 registration first retry to "180".
```

```
(nvox-sip)> no registration-first-retry
Nvox::Manager: Reset SIP line 1 registration first retry.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip registration-first-retry command has been introduced. |

C.25.39 nvox sip registration-retry

Description

Set the SIP registration retry timeout. Registration attempts are repeated if the IP telephony operator's server does not respond to SIP registration requests. By default, 120 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> registration-retry <timeout>
```

```
(nvox-sip)> no registration-retry
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | SIP registration repeat timeout in the range from 0 to 1800 seconds. |

Example

```
(nvox-sip)> registration-retry 180
Nvox::Manager: Set SIP line 1 registration retry to "180".
```

```
(nvox-sip)> no registration-retry
Nvox::Manager: Reset SIP line 1 registration retry.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip registration-retry command has been introduced. |

C.25.40 nvox sip registration-uri

Description

Set the domain name or IP address of the SIP registration server of the IP telephony operator for this line. By default, the registration server is not set.

Command with **no** prefix removes the registration server from parameters.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> registration-uri <uri>
```

```
(nvox-sip)> no registration-uri
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| uri | <i>String</i> | Domain name or IP address. If the SIP proxy uses a non-standard port (other than 5060), it must be specified to the right of the domain name/IP address with a colon. |

Example

```
(nvox-sip)> registration-uri sip.registrar.local:5090
Nvox::Manager: Set SIP line 1 registration URI to ►
"sip.registrar.local:5090".
```

```
(nvox-sip)> no registration-uri
Nvox::Manager: Reset SIP line 1 registration URI.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip registration-uri command has been introduced. |

C.25.41 nvox sip sdp-nat-rewrite

Description

Enable receiving your IP address (or NAT IP address) from the registration server and overwriting by it the appropriate fields in the Via, Contact headers, as well as in SIP/SDP in all further outgoing SIP messages. This ensures the successful exchange of SIP signaling messages and two-way audibility. Use this option when a secondary channel, such as a VPN tunnel, is used to communicate with the server, or when there is a symmetric NAT between

the Keenetic device and the operator's public server that STUN technology does not work with. By default, the feature is disabled.

Command with **no** prefix disables IP address rewriting.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> sdp-nat-rewrite
(nvox-sip)> no sdp-nat-rewrite
```

Example

```
(nvox-sip)> sdp-nat-rewrite
Nvox::Manager: Set SIP line 1 SDP NAT, Contact and Via rewrite ►
to "1".
```

```
(nvox-sip)> no sdp-nat-rewrite
Nvox::Manager: Reset SIP line 1 SDP NAT, Contact and Via rewrite.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip sdp-nat-rewrite command has been introduced. |

C.25.42 nvox sip selection-id

Description Set the line selection code 0...9, which allows you to select this line for an outgoing call. To select a line, dial #, the line selection code and the subscriber number. When you select a line with a dialing code, the dialing rules are ignored and you can call a number that does not match the dialing rules of that line. With the code you can select only the lines, outgoing calls through which are allowed for this phone or DECT handset. The default selection code is not configured.

Command with **no** prefix removes the selection code from the line settings.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> selection-id <sel-id>
(nvox-sip)> no selection-id
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| sel-id | <i>Integer</i> | Line selection code in the range from 0 to 9. |

Example

```
(nvox-sip)> selection-id 9
Nvox::Manager: Set SIP line 1 selection id to "9".
```

```
(nvox-sip)> no selection-id
Nvox::Manager: Reset SIP line 1 selection id.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip selection-id command has been introduced. |

C.25.43 nvox sip session-timer

Description

Set the SIP session timer for this line. By default, the 120 value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> session-timer <timer>
```

```
(nvox-sip)> no session-timer
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timer | <i>Integer</i> | Timer value in the range from 90 to 86400 seconds. |

Example

```
(nvox-sip)> session-timer 180
Nvox::Manager: Set SIP line 1 session timer to "180".
```

```
(nvox-sip)> no session-timer
Nvox::Manager: Reset SIP line 1 session timer.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip session-timer command has been introduced. |

C.25.44 nvox sip session-timer-mode

Description

Set the SIP-session timer mode for this line. By default, the optional value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings Yes**Multiple input** No

Synopsis

```
(nvox-sip)> session-timer-mode <mode>
```

```
(nvox-sip)> no session-timer-mode
```

Arguments

| Argument | Value | Description |
|----------|----------|---|
| mode | disable | The session timer is not used, except when required by the remote party. |
| | optional | The session timer is used if the remote party supports and uses it. |
| | required | Session timer support is a requirement for the remote party to establish a connection. |
| | always | Session timer is used in every connection, regardless of whether the remote party supports it or not. |

Example

```
(nvox-sip)> session-timer-mode always
Nvox::Manager: Set SIP line 1 session timer mode to "always".
```

```
(nvox-sip)> no session-timer-mode
Nvox::Manager: Reset SIP line 1 session timer mode.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip session-timer-mode command has been introduced. |

C.25.45 nvox sip substitute

Description

Set up a prefix substitution rule to delete some digits or a group of digits in the caller's number that appears on the handset display when a call comes in. The symbol > is used for substitution. To the left of the > must be a sequence of numbers, which should be replaced by the sequence to the right of this symbol. The substitution expression must be enclosed in parentheses. In a substitution rule there can be several substitution expressions. By default, the prefix substitution rule is not configured. Numbers that do not comply with the prefix substitution rule are displayed on the phone screen unchanged.

For more information see [Syntax of prefix substitution rules](#).

Command with **no** prefix removes the prefix substitution rule.

Prefix no Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(nvox-sip)> substitute <substitute>
```

```
(nvox-sip)> no substitute
```

Arguments

| Argument | Value | Description |
|------------|---------------|--|
| substitute | <i>String</i> | A string up to 100 characters long. Valid characters: 01234567890*#+ABCDx[]() >.-. |

Example

```
(nvox-sip)> substitute (+39>)x.|(+00)x.  
Nvox::Manager: Set SIP line 1 substitute to "(+39>)x.|(+00)x."
```

```
(nvox-sip)> no substitute  
Nvox::Manager: Reset SIP line 1 substitute.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip substitute command has been introduced. |

C.25.46 nvox sip tls-security-mode

Description

Set the security mode when using the TLS transport protocol. By default, the sip-tls value is used.

Command with **no** prefix resets setting to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> tls-security-mode <mode>
```

```
(nvox-sip)> no tls-security-mode
```

Arguments

| Argument | Value | Description |
|----------|---------|--|
| mode | sip-tls | The SIP URI scheme is used. During a call, the TLS transport is only used to transmit SIP signaling between the Keenetic router and your IP telephony provider's proxy server. |
| | sips | The SIPS URI scheme is used. It is designed to ensure that during a phone call, secure transport protocols are used to send SIP signaling all the way between the Keenetic router and the remote caller. |

Example

```
(nvox-sip)> tls-security-mode sips  
Nvox::Manager: Set SIP line 1 TLS security mode to "sips".
```



```
(nvox-sip)> no tls-security-mode
Nvox::Manager: Reset SIP line 1 TLS security mode to sip-tls.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip tls-security-mode command has been introduced. |

C.25.47 nvox sip transport

Description Set the transport protocol used to transmit SIP signaling messages. By default, the udp value is used.

Note: If communication is only possible over IPv4, the UDP over IPv4 transport will be used, even if UDP over IPv6 was selected.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip)> transport <transport>
```

```
(nvox-sip)> no transport
```

Arguments

| Argument | Value | Description |
|-----------|-------|--|
| transport | udp | The UDP transport protocol over IPv4 is the most commonly used transport. It is supported by most SIP servers and subscriber devices. |
| | udp6 | The UDP transport protocol over IPv6. |
| | tcp | Transport protocol TCP over IPv4. It guarantees the delivery of messages, including long messages that cannot be transmitted by the UDP transport without fragmentation. |
| | tcp6 | Transport protocol TCP over IPv6. |
| | tls | TLS transport protocol over IPv4. It ensures secure exchange of SIP signaling messages with the operator's proxy server. Helps prevent theft of credentials and other important information transmitted in SIP signaling messages. |
| | tls6 | TLS transport protocol over IPv6. |

Example

```
(nvox-sip)> transport tls
Nvox::Manager: Set SIP line 1 transport to "tls".
```

```
(nvox-sip)> transport udp6
Nvox::Manager: Set SIP line 1 transport to "udp6".
```

```
(nvox-sip)> no transport
Nvox::Manager: Reset SIP line 1 transport to udp.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip transport command has been introduced. |
| 4.00 | The udp6 , tcp6 , tls6 arguments were added. |

C.25.48 nvox sip whitelist

Description

Create a whitelist list of numbers from which incoming calls are allowed through this line. By default, whitelist is not configured.

When you receive an incoming call from a subscriber whose number is in the whitelist, the phone rings even if this number corresponds to the blacklist. If the whitelist is created and enabled, while the blacklist is absent or disabled, only calls from numbers in the whitelist are allowed.

When checking the number against the whitelist, the system sequentially compares the number with each of the numbers and patterns in the line from left to right until the first match.

When the command is executed, the previously configured whitelist is overwritten with the new list.

Command with **no** prefix removes the whitelist.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip)> whitelist <map>
```

```
(nvox-sip)> no whitelist
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| map | <i>String</i> | A string of up to 600 characters in length. Phone numbers and number patterns are separated from each other by the character. Valid characters: 01234567890*#+ABCDx[] -.> |

Example

```
(nvox-sip)> whitelist 1234x
Nvox::Manager: Set SIP line 1 whitelist to "1234x".
```

```
(nvox-sip)> whitelist +749[589]1234567
Nvox::Manager: Set SIP line 1 whitelist to "+749[589]1234567".
```

```
(nvox-sip)> whitelist 1234567890|+79261234567|000123456|1234567
Nvox::Manager: Set SIP line 1 whitelist to ►
"1234567890|+79261234567|000123456|1234567".
```

```
(nvox-sip)> no whitelist
Nvox::Manager: Reset SIP line 1 whitelist.
```

History

| Version | Description |
|---------|--|
| 4.01 | The nvox sip whitelist command has been introduced. |

C.26 nvox sip-common

Description Access to a group of commands to configure the SIP common settings.

Prefix no No

Change settings No

Multiple input No

Group entry (nvox-sip-common)

Synopsis | (nvox)> **sip-common**

Example (nvox)> **sip-common**
Core::Configurator: Done.
(nvox-sip-common)>

History

| Version | Description |
|---------|---|
| 2.00 | The nvox sip-common command has been introduced. |

C.26.1 nvox sip-common 100rel

Description Enable support of 100rel for reliable SIP Class 100 messaging on incoming and outgoing calls. By default, 100rel is enabled.

Command with **no** prefix disables 100rel support.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> 100rel
```

```
(nvox-sip-common)> no 100rel
```

Example

```
(nvox-sip-common)> 100rel  
Nvox::Manager: Set SIP enable 100rel/PRACK SIP extension to "1".
```

```
(nvox-sip-common)> no 100rel  
Nvox::Manager: Set SIP enable 100rel/PRACK SIP extension to "0".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common 100rel command has been introduced. |

C.26.2 nvox sip-common agent

Description

Configure the User Agent name. By default, the name is used of the router's model, for example "Keenetic Giga (KN-1011)".

Command with **no** prefix removes the User Agent name configured by the user.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip-common)> agent agent
```

```
(nvox-sip-common)> no agent
```

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| agent | <i>String</i> | String of printed symbols of the set ASCII. Maximum string length is 100 characters. |

Example

```
(nvox-sip-common)> agent Keenetic  
Nvox::Manager: Set SIP user agent to "Keenetic".
```

```
(nvox-sip-common)> no agent  
Nvox::Manager: Reset SIP user agent.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip-common agent command has been introduced. |

C.26.3 nvox sip-common disable-dns-srv

Description Disable the DNS SRV resolving feature. With this feature, the system gets the IP address and signal port of the SIP proxy server from the DNS SRV record. By default, the feature is enabled.

Note: If the DNS SRV resolving function is disabled, the system gets the IP address of the SIP proxy server from entry A, and gets its signal port from the SIP line settings.

Command with **no** prefix enables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> disable-dns-srv
(nvox-sip-common)> no disable-dns-srv
```

Example

```
(nvox-sip-common)> disable-dns-srv
Nvox::Manager: Set SIP disable DNS SRV to "1".
```

```
(nvox-sip-common)> no disable-dns-srv
Nvox::Manager: Reset SIP disable DNS SRV.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip-common disable-dns-srv command has been introduced. |

C.26.4 nvox sip-common disable-tls-validation

Description Disable the SIP proxy validation when using SIP TLS transport. By default, the SIP proxy validation is enabled.

Validation is performed when a TLS connection is established with a SIP proxy server. A proxy server is considered valid if the following conditions are met:

- 1) The x.509 certificate of the proxy server is signed by one of the trusted certificate authorities whose root certificates are in the certificate store of the Keenetic device.
- 2) The SIP proxy server domain name in the SIP telephone line settings must match the "commonName" field in the SIP proxy certificate.

Keenetic establishes a TLS connection if the validation is successful and starts exchanging SIP messages with the SIP proxy server. Keenetic terminates the TLS connection if a validation error occurs, and displays "503 SSL certificate validation error" in the system log.

Command with **no** prefix enables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> disable-tls-validation
(nvox-sip-common)> no disable-tls-validation
```

Example

```
(nvox-sip-common)> disable-tls-validation
Nvox::Manager: Set SIP disable proxy verification to "1".
```

```
(nvox-sip-common)> no disable-tls-validation
Nvox::Manager: Set SIP disable proxy verification to "0"
```

History

| Version | Description |
|---------|--|
| 3.09 | The nvox sip-common disable-tls-validation command has been introduced. |

C.26.5 nvox sip-common g726-dynamic-payload

Description Configure the dynamic payload type for the G.726 codec. By default, 109 value is used.

Note: G.726 codec is not supported with Keenetic Linear.

Command with **no** prefix resets the dynamic payload to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> g726-dynamic-payload <payload>
(nvox-sip-common)> no g726-dynamic-payload
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| payload | <i>Integer</i> | Dynamic payload type ranging from 96 to 127. |

Example

```
(nvox-sip-common)> g726-dynamic-payload 98
Nvox::Manager: Set SIP G726 dynamic payload to "98".
```

```
(nvox-sip-common)> no g726-dynamic-payload
Nvox::Manager: Reset SIP G726 dynamic payload.
```

| History | Version | Description |
|---------|---------|--|
| | 3.05 | The nvox sip-common g726-dynamic-payload command has been introduced. |

C.26.6 nvox sip-common outbound-proxy

Description Configure the domain name or IP address of the outgoing SIP proxy server for all SIP telephone lines configured in the system. By default, the proxy server is not configured.

Note: If the outgoing proxy uses a non-standard port (other than 5060), it must be specified to the right of the domain name/IP address with a colon.

Command with **no** prefix deletes the outgoing SIP proxy server.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> outbound-proxy <proxy>
(nvox-sip-common)> no outbound-proxy
```

| Arguments | Argument | Value | Description |
|-----------|----------|--------|----------------------------|
| | proxy | String | Domain name or IP address. |

Example

```
(nvox-sip-common)> outbound-proxy sip.proxy.local:5090
Nvox::Manager: Set SIP outbound proxy to "sip.proxy.local:5090".
```

```
(nvox-sip-common)> no outbound-proxy
Nvox::Manager: Reset SIP outbound proxy.
```

| History | Version | Description |
|---------|---------|--|
| | 3.05 | The nvox sip-common outbound-proxy command has been introduced. |

C.26.7 nvox sip-common qos

Description Access to a group of commands to configure the QoS. These settings apply to all SIP lines in the system.

Prefix no No

Change settings No

Multiple input No

Group entry (sip-common-qos)

Synopsis (nvox-sip)> qos

Example

```
(nvox-sip)> qos
Core::Configurator: Done.
(sip-common-qos)>
```

| Version | Description |
|---------|--|
| 3.05 | The nvox sip qos command has been introduced. |

C.26.7.1 nvox sip-common qos rtp-dscp

Description Set the priority in the IP header DS field of outgoing packets with audio data transmitted over RTP. The upstream network equipment can read the DS field and prioritize packets according to the priority specified in this field. The default setting is lowest priority.

Command with **no** prefix sets lowest priority (0) to DS.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sip-common-qos)> rtp-dscp <dscp>
(sip-common-qos)> no rtp-dscp
```

| Argument | Value | Description |
|----------|----------------|--|
| dscp | <i>Integer</i> | The priority number in the range from 0 to 63. |

Example

```
(sip-common-qos)> rtp-dscp 46
Nvox::Manager: Set SIP Default RTP ToS/DSCP (Type of Service) ►
to "46".
```

```
(sip-common-qos)> no rtp-dscp
Nvox::Manager: Reset SIP Default RTP ToS/DSCP (Type of Service).
```

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common qos rtp-dscp command has been introduced. |

C.26.7.2 nvox sip-common qos rtp-so-prio

Description Set the priority in the 3-bit PCP field of the IEEE 802.1Q header of outgoing packets with audio data transmitted via RTP over VLAN. The upstream network equipment can read the PCP field and prioritize packets according to the priority specified in this field. The default setting is lowest priority.

Command with **no** prefix sets 0 priority to PCP.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sip-common-qos)> rtp-so-prio <so_prio>
(sip-common-qos)> no rtp-so-prio
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| so_prio | <i>Integer</i> | The priority number in the range from 0 to 7, where 0 is the lowest priority; 7 — highest priority. |

Example

```
(sip-common-qos)> rtp-so-prio 7
Nvox::Manager: Set SIP Default RTP CoS (Class of Service) to "7".
```

```
(sip-common-qos)> no rtp-so-prio
Nvox::Manager: Reset SIP Default RTP CoS (Class of Service).
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip-common qos rtp-so-prio command has been introduced. |

C.26.7.3 nvox sip-common qos sip-dscp

Description Set the priority in the DS field of the IP header packets with outgoing messages transmitted via the SIP protocol. The upstream network equipment can read the DS field and prioritize packets according to the priority specified in this field. The default setting is lowest priority.

Command with **no** prefix sets lowest priority (0) to DS.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sip-common-qos)> sip-dscp <dscp>
```

```
(sip-common-qos)> no sip-dscp
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| dscp | <i>Integer</i> | The priority number in the range from 0 to 63. |

Example

```
(sip-common-qos)> sip-dscp 24  
Nvox::Manager: Set SIP Default SIP ToS/DSCP (Type of Service) ►  
to "24".
```

```
(sip-common-qos)> no sip-dscp  
Nvox::Manager: Reset SIP Default SIP ToS/DSCP (Type of Service).
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common qos sip-dscp command has been introduced. |

C.26.7.4 nvox sip-common qos sip-so-prio**Description**

Set the priority in the 3-bit PCP field of the IEEE 802.1Q header of outgoing packets with audio data transmitted via SIP over VLAN. The upstream network equipment can read the PCP field and prioritize packets according to the priority specified in this field. The default setting is lowest priority.

Command with **no** prefix sets 0 priority to PCP.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(sip-common-qos)> sip-so-prio <so_prio>
```

```
(sip-common-qos)> no sip-so-prio
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| so_prio | <i>Integer</i> | The priority number in the range from 0 to 7, where 0 is the lowest priority; 7 — highest priority. |

Example

```
(sip-common-qos)> sip-so-prio 7  
Nvox::Manager: Set SIP Default SIP CoS (Class of Service) to "7".
```

```
(sip-common-qos)> no sip-so-prio
Nvox::Manager: Reset SIP Default SIP CoS (Class of Service).
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip-common qos sip-so-prio command has been introduced. |

C.26.8 nvox sip-common rtp-port

Description Configure the range of UDP ports that the system uses to exchange RTP audio data during a telephone connection. By default, the range of UDP ports is from 4000 to 4015.

Command with **no** prefix resets the range of UDP ports by default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> rtp-port <port>through <end-port>
(nvox-sip-common)> no rtp-port
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| port | <i>Integer</i> | The first port of the range. Valid values are from 1 to 65534. |
| end-port | <i>Integer</i> | The last port of the range. Valid values are from 1 to 65534. |

Example

```
(nvox-sip-common)> rtp-port 10000 through 10200
Nvox::Manager: Set RTP port range from 10000 to 10200.
```

```
(nvox-sip-common)> no rtp-port
Nvox::Manager: Reset SIP RTP port range to default, the transport ►
will be bound to any available port.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common rtp-port command has been introduced. |

C.26.9 nvox sip-common sdp rtcp

Description Enable RTCP parameter negotiation in SDP. By default, function is disabled.

Command with **no** prefix disables the feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> sdp rtcp
(nvox-sip-common)> no sdp rtcp
```

Example

```
(nvox-sip-common)> sdp rtcp
Nvox::Manager: Set SIP RTCP in SDP to "1".
```

```
(nvox-sip-common)> no sdp rtcp
Nvox::Manager: Reset SIP RTCP in SDP.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common sdp rtcp command has been introduced. |

C.26.10 nvox sip-common sdp tias

Description Add TIAS bandwidth modifier to SDP (SDP bandwidth modifier TIAS, RFC3890). By default, the TIAS is absent in SDP.

Command with **no** prefix removes TIAS from SDP.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> sdp tias
(nvox-sip-common)> no sdp tias
```

Example

```
(nvox-sip-common)> sdp tias
Nvox::Manager: Set SIP TIAS in SDP to "1".
```

```
(nvox-sip-common)> no sdp tias
Nvox::Manager: Reset SIP TIAS in SDP.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common sdp tias command has been introduced. |

C.26.11 nvox sip-common stun-server

Description Configure the domain name or IP address of the STUN server common to all SIP telephone lines configured in the system.

By default, the STUN server is `stun.l.google.com:19302`.

Command with **no** prefix resets configuration by default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> stun-server <stun>
(nvox-sip-common)> no stun-server
```

Arguments

| Argument | Value | Description |
|----------|---------------|----------------------------|
| stun | <i>String</i> | Domain name or IP address. |

Example

```
(nvox-sip-common)> stun-server stun.sipnet.ru:3478
Nvox::Manager: Set SIP STUN server to "stun.sipnet.ru:3478".
```

```
(nvox-sip-common)> no stun-server
Nvox::Manager: Reset SIP STUN server.
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip-common stun-server command has been introduced. |

C.26.12 nvox sip-common tcp-keepalive

Description Set the interval of keepalive packet sending to the SIP proxy's TCP signaling port to keep an open connection to the server through NAT. By default, 90 value is set.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> tcp-keepalive <interval>
(nvox-sip-common)> no tcp-keepalive
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| interval | <i>Integer</i> | The interval of keepalive packet sending in seconds. Can take values in the range from 5 to 600 inclusively. 0 value disables the sending of keepalive messages. |

Example

```
(nvox-sip-common)> tcp-keepalive 120
Nvox::Manager: Set SIP TCP keepalive to "120".
```

```
(nvox-sip-common)> no tcp-keepalive
Nvox::Manager: Reset SIP TCP keepalive.
```

```
(nvox-sip-common)> tcp-keepalive 0
Nvox::Manager: Set SIP TCP keepalive to "0".
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip-common tcp-keepalive command has been introduced. |

C.26.13 nvox sip-common tcp-port

Description

Configure the number of the local TCP port used to exchange SIP signaling messages with IP-telephony providers servers over the TCP transport protocol. By default, 5060 value is set.

Command with **no** prefix resets port to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip-common)> tcp-port <port>
```

```
(nvox-sip-common)> no tcp-port
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| port | <i>Integer</i> | TCP port number in the range from 1 to 65534. Use 0 value to force the system to select a random free TCP port automatically. |

Example

```
(nvox-sip-common)> tcp-port 8075
Nvox::Manager: Set SIP TCP port to "8075".
```

```
(nvox-sip-common)> no tcp-port
Nvox::Manager: Reset SIP TCP port.
```

```
(nvox-sip-common)> tcp-port 0
Nvox::Manager: Set SIP TCP port to "0".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common tcp-port command has been introduced. |

C.26.14 nvox sip-common td-timeout

Description

Set the timeout for switching SIP proxies. Switching becomes possible if the DNS SRV record contains a list of several servers. The system selects from a list the server with the highest priority for SIP messaging. If this server does not respond, the system switches to the next highest priority server.

Note: This command is relevant if the [DNS SRV resolving](#) is enabled.

By default, 10000 value is set.

Command with **no** prefix resets timeout to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip-common)> td-timeout <timeout>
```

```
(nvox-sip-common)> no td-timeout
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| timeout | <i>Integer</i> | The switchover timeout to another server in the range from 10000 to 100000 ms. |

Example

```
(nvox-sip-common)> td-timeout 12000
Nvox::Manager: Set SIP wait time for response retransmissions ►
to "12000".
```

```
(nvox-sip-common)> no td-timeout
Nvox::Manager: Reset SIP wait time for response retransmissions.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common td-timeout command has been introduced. |

C.26.15 nvox sip-common tls-keepalive

Description Set the interval of keepalive packet sending to the SIP proxy's TLS signaling port to keep an open connection to the server through NAT. By default, 90 value is set.

Note: This command is relevant when using the TLS transport protocol.

Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> tls-keepalive <interval>
(nvox-sip-common)> no tls-keepalive
```

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| interval | <i>Integer</i> | The interval of keepalive packet sending in seconds. Can take values in the range from 5 to 600 inclusively. 0 value disables the sending of keepalive messages. |

Example

```
(nvox-sip-common)> tls-keepalive 120
Nvox::Manager: Set SIP TLS keepalive to "120".
```

```
(nvox-sip-common)> no tls-keepalive
Nvox::Manager: Reset SIP TLS keepalive.
```

```
(nvox-sip-common)> tls-keepalive 0
Nvox::Manager: Set SIP TLS keepalive to "0".
```

History

| Version | Description |
|---------|---|
| 3.05 | The nvox sip-common tls-keepalive command has been introduced. |

C.26.16 nvox sip-common tls-port

Description Configure the number of the local TLS port used to exchange SIP signaling messages with IP-telephony providers servers over the TLS protocol. By default, 5061 value is set.

Note: Local TLS port number must not be the same as the local UDP and TCP port numbers that the system uses to exchange SIP messages.

Command with **no** prefix resets port to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> tcp-port port
(nvox-sip-common)> no tcp-port
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| port | <i>Integer</i> | TLS port number in the range from 1 to 65534. Use 0 value to force the system to select a random free TLS port automatically. |

Example

```
(nvox-sip-common)> tls-port 8076
Nvox::Manager: Set SIP TLS port to "8076".
```

```
(nvox-sip-common)> no tls-port
Nvox::Manager: Reset SIP TLS port.
```

```
(nvox-sip-common)> tls-port 0
Nvox::Manager: Set SIP TLS port to "0".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common tcp-port command has been introduced. |

C.26.17 nvox sip-common udp-port

Description Configure the number of the local UDP port used to exchange SIP signaling messages with IP-telephony providers servers over the UDP protocol. By default, 5060 value is set.

Command with **no** prefix resets port to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nvox-sip-common)> udp-port port
(nvox-sip-common)> no udp-port
```

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| port | <i>Integer</i> | UDP port number in the range from 1 to 65534. Use 0 value to force the system to select a random free UDP port automatically. |

Example

```
(nvox-sip-common)> udp-port 34577
Nvox::Manager: Set SIP UDP port to "34577".
```

```
(nvox-sip-common)> no udp-port
Nvox::Manager: Reset SIP UDP port.
```

```
(nvox-sip-common)> udp-port 0
Nvox::Manager: Set SIP UDP port to "0".
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common udp-port command has been introduced. |

C.26.18 nvox sip-common unescape-hash-char

Description

Allow the # symbol in Request URI of INVITE requests in ASCII encoding, which is necessary for normal work with some IP-telephony operators. By default, the feature is disabled.

Command with **no** prefix disables the setting. The # symbol is encoded as %23, which corresponds to RFC2396.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(nvox-sip-common)> unescape-hash-char
```

```
(nvox-sip-common)> no unescape-hash-char
```

Example

```
(nvox-sip-common)> unescape-hash-char
Nvox::Manager: Set SIP unescape # char in outgoing SIP URI to "1".
```

```
(nvox-sip-common)> no unescape-hash-char
Nvox::Manager: Reset SIP unescape # char in outgoing SIP URI.
```

History

| Version | Description |
|---------|--|
| 3.05 | The nvox sip-common unescape-hash-char command has been introduced. |

C.27 show nvox active-calls

Description Show the list of active calls that are being made at the moment.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **nvox active-calls**

Example (show)> **nvox active-calls**

```

active_calls:
  call:
    type: outgoing
    index: 0
    status: hold
    hs: phone 1
    line: 1001
    number: 9999
    start_time: Fri Dec 17 12:04:06 2021
    duration: 30
  matched_name:

  call:
    type: outgoing
    index: 1
    status: connected
    hs: phone 1
    line: 1001
    number: 1002
    start_time: Fri Dec 17 12:04:17 2021
    duration: 12
  matched_name:

  call:
    type: incoming
    index: 2
    status: connected
    hs: phone 2
    line: 1002
    number: 1001
    start_time: Fri Dec 17 12:04:21 2021
    duration: 12
  matched_name:

```

History

| Version | Description |
|---------|--|
| 3.05 | The show nvox active-calls command has been introduced. |

C.28 show nvox blacklist

Description Show the blacklist configured for the SIP line.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> nvox blacklist <id>`

| Argument | Value | Description |
|----------|---------------|---|
| id | <i>String</i> | SIP line identifier of Latin letters and numbers from 0 to 9. The maximum string length is 64 characters. |

Example

```
(show)> nvox blacklist 1

line:
  id: 1
  name: nonoh
  blacklist: [1-69]x.|+792[67]x.|000x.|1234567
```

| Version | Description |
|---------|---|
| 4.01 | The show nvox blacklist command has been introduced. |

C.29 show nvox cadences

Description Show the settings of the selected ringtone. If you use no argument, the settings of all ringtones will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> nvox cadences [cadence]`

| Argument | Value | Description |
|----------|----------------|---|
| cadence | <i>Integer</i> | Ringtone number in the range from 0 to 5. |

Example

```
(show)> nvox cadences

cadences:
```

```
cadence:  
    id: 0  
    active1: 400  
    passive1: 500  
    active2: 400  
    passive2: 2000  
    active3: 0  
    passive3: 0
```

```
cadence:  
    id: 1  
    active1: 1000  
    passive1: 4000  
    active2: 0  
    passive2: 0  
    active3: 0  
    passive3: 0
```

```
cadence:  
    id: 2  
    active1: 400  
    passive1: 500  
    active2: 0  
    passive2: 0  
    active3: 0  
    passive3: 0
```

```
cadence:  
    id: 3  
    active1: 400  
    passive1: 2000  
    active2: 1200  
    passive2: 1200  
    active3: 0  
    passive3: 0
```

```
cadence:  
    id: 4  
    active1: 400  
    passive1: 500  
    active2: 400  
    passive2: 2000  
    active3: 2000  
    passive3: 2000
```

```
cadence:  
    id: 5  
    active1: 4000  
    passive1: 2000  
    active2: 0  
    passive2: 0  
    active3: 0  
    passive3: 0
```

```
(show)> nvox cadences 1
```

```
cadence:
  id: 1
  active1: 1000
  passive1: 4000
  active2: 0
  passive2: 0
  active3: 0
  passive3: 0
```

History

| Version | Description |
|---------|--|
| 3.05 | The show nvox cadences command has been introduced. |

C.30 show nvox call-history

Description Show list of calls registered since the router is switched on. If you use no arguments, the entire call log will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> nvox call-history [<offset> [<count>]]`

Arguments

| Argument | Value | Description |
|----------|----------------|---|
| offset | <i>Integer</i> | The number of call log entries, starting from the last entry, that you want to skip when displaying on the screen. The offset must not exceed the maximum number of records specified by the nvox call-history length command. |
| count | <i>Integer</i> | The number of records to be shown. The records are displayed in descending order. If this parameter is absent, all records with the specified offset are displayed. |

Example

```
(show)> nvox call-history
```

```
call_history:
  call:
    type: outgoing
    index: 3
    start_time: Wed Dec 29 13:15:17 2021
    line: 1002
    hs: phone 2
```

```
other_party_number: 9996
  other_party_name:
    duration: 47
    release_code:
    release_reason:

    call:
      type: outgoing
      index: 2
      start_time: Wed Dec 29 13:15:17 2021
      line: 1001
      hs: phone 1
other_party_number: 9997
  other_party_name:
    duration: 48
    release_code:
    release_reason:

    call:
      type: outgoing
      index: 1
      start_time: Wed Dec 29 13:13:39 2021
      line: 1002
      hs: phone 2
other_party_number: 9998
  other_party_name:
    duration: 13
    release_code:
    release_reason:

    call:
      type: outgoing
      index: 0
      start_time: Wed Dec 29 13:13:36 2021
      line: 1001
      hs: phone 1
other_party_number: 9999
  other_party_name:
    duration: 18
    release_code:
    release_reason:
```

```
(show)> nvox call-history 2 2
```

```
call_history:
  call:
    type: outgoing
    index: 1
    start_time: Wed Dec 29 13:13:39 2021
    line: 1002
    hs: phone 2
  other_party_number: 9998
  other_party_name:
    duration: 13
```

```

        release_code:
        release_reason:

        call:
            type: outgoing
            index: 0
            start_time: Wed Dec 29 13:13:36 2021
            line: 1001
            hs: phone 1
other_party_number: 9999
other_party_name:
    duration: 18
    release_code:
    release_reason:

```

History

| Version | Description |
|---------|--|
| 2.06 | The show dect call-history command has been introduced. |
| 3.05 | The command renamed to show nvox call-history . |

C.31 show nvox fxs

Description Show Keenetic Linear USB module settings.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **nvox fxs**

Example (show)> **nvox fxs**

```

        fxs-status:
            country-codes: BG CA CS DE DK EE ES FI FR GR HR
                          HU IT KZ LT LV NO PL PT RO RS RU ►
SE SI SK TR UA
            selected-country: DE
            force-calibration: disabled
            pulse-dial-modes: 0 - disabled, 1 - disabled
                          during voice calls, 2 - always ►
enabled
            selected-pulse-dial-mode: 1
            led-blinking-timer: 1000
            unmute-timer: 200

```


History

| Version | Description |
|---------|---|
| 3.05 | The show nvox fxs command has been introduced. |

C.32 show nvox fxs-ports

Description Show phone port settings of Keenetic Linear USB module.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **nvox fxs-ports**

Example

```
(show)> nvox fxs-ports

ports:
  port:
    id: 1
    name: phone 1
    int-number: 1
    status: enabled
    volume-rx: -4
    volume-tx: -4
    impedance: 220_820_115
    hash-ends-dial: enabled
    echo-cancellation: enabled

  port:
    id: 2
    name: phone 2
    int-number: 2
    status: enabled
    volume-rx: -4
    volume-tx: -4
    impedance: 220_820_115
    hash-ends-dial: enabled
    echo-cancellation: enabled
```

History

| Version | Description |
|---------|---|
| 3.05 | The show nvox fxs-ports command has been introduced. |

C.33 show nvox info

Description Show information about the IP telephony system application installed on Keenetic OS.

Prefix no No**Change settings** No**Multiple input** No**Synopsis** `(show)> nvox info`

Example

```
(show)> nvox info

      info:
      app_name: nvox
      app_version: 0.8.2.53
      app_suffix: singledongle
      compile_date: Dec 15 2021
      sip_name: pjsip
      sip_version: 2.6
      sip_status: stopped
      tel_type: FXS
      tel_name: Si32287
tel_api_version: 9.2.0
      tel_serial: S2135NS000404
      tel_fw_date: 17:28:49 Feb 24 2021
      tel_fw_version: 0044
      plugged: yes
supported_codecs: g711u,g711a,g726,g722
```

History

| Version | Description |
|---------|--|
| 3.05 | The show nvox info command has been introduced. |

C.34 show nvox license

Description Show information about the connected USB module service code.**Prefix no** No**Change settings** No**Multiple input** No**Synopsis** `(show)> nvox license`

Example

```
(show)> nvox license

      plugged: yes
      license: 123456789012345
      integrity: ok
```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The show nvox license command has been introduced. |

C.35 show nvox sip-lines

Description Show SIP registration status of telephone lines and the status of blacklists and whitelists configured in the system.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **nvox sip-lines**

Example (show)> **nvox sip-lines**

```

lines:
  line:
    id: 2
    name: 1002
    code: 401
    status: failure
  description: Unauthorized
  blacklist: configured, enabled
  whitelist: configured, disabled

  line:
    id: 1
    name: 1001
    code: 200
    status: registered
  description: OK
  blacklist: empty, disabled
  whitelist: configured, disabled

```

| History | Version | Description |
|---------|---------|---|
| | 3.05 | The show nvox sip-lines command has been introduced. |

C.36 show nvox sip-profiles

Description Show settings profiles for connecting to IP telephony operators, which are used to configure phone lines in the web interface.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **nvox sip-profiles [default]**

Arguments

| Argument | Value | Description |
|----------|----------------|--|
| default | <i>Keyword</i> | Show the default settings profile that is used when no operator is selected. |

Example

```
(show)> nvox sip-profiles

  profile:
    provider: Actionvoip
  registration-uri: sip.actionvoip.com
    proxy: sip.actionvoip.com:5060
    domain: sip.actionvoip.com
  reg-timeout: 180

  profile:
    provider: Chief 070
  registration-uri:
    proxy: 202.133.231.17
    domain: chiefcall.com.tw

  profile:
    provider: Deutsche Telekom (UDP)
    domain: tel.t-online.de
  registration-uri: tel.t-online.de
    proxy: tel.t-online.de
    substitute: (+49>0)x.
  reg-timeout: 480

  profile:
    provider: Deutsche Telekom (TCP)
    domain: tel.t-online.de
  registration-uri: tel.t-online.de
    proxy: tel.t-online.de
    substitute: (+49>0)x.
    transport: tcp
  reg-timeout: 480

  profile:
    provider: FreeCall
  registration-uri: sip.voiparound.com
    proxy: sip.voiparound.com:5060
    domain: sip.voiparound.com
  reg-timeout: 180

  profile:
    provider: Nonoh
  registration-uri: sip.nonoh.net
    proxy: sip.nonoh.net:5060
```

```

        domain: sip.nonoh.net
        reg-timeout: 180

        profile:
            provider: Telbo
        registration-uri: telbo.com
            proxy: telbo.com
            domain: telbo.com

        profile:
            provider: TIM Telecom Italia
        registration-uri: telecomitalia.it
            domain: telecomitalia.it
            transport: udp
            keepalive: 30
            substitute: (+39>)x.|(+>00)x.

            codec: g711a

            codec: g711u

        reg-timeout: 3600

        profile:
            provider: VoipDiscount
        registration-uri: sip.voipdiscount.com
            proxy: sip.voipdiscount.com:5060
            domain: sip.voipdiscount.com
        reg-timeout: 180

        profile:
            provider: WebCallDirect
        registration-uri: webcalldirect.com
            proxy: webcalldirect.com
            domain: webcalldirect.com
        reg-timeout: 180

```

```
(show)> nvox sip-profiles default
```

```

        profile:
            provider: CUSTOM
            name: CUSTOM
        registration-uri:
            reg-timeout: 180
            proxy:
            domain:
            transport: udp
        tls-security-mode: SIP-TLS
            dtmf-mode: rfc2833
            lock-codec: yes
            disable-stun: yes
        sdp-nat-rewrite: no
            keepalive: 30

```

```

        codec: g711u

        codec: g711a

    digit-map:
    substitute:

```

History

| Version | Description |
|---------|--|
| 3.05 | The show nvox sip-profiles command has been introduced. |

C.37 show nvox try-dial

Description Show the telephone line through which an outgoing call will go to a specified telephone number from a specified DECT handset or telephone port.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> nvox try-dial <ipui> <number>`

Arguments

| Argument | Value | Description |
|----------|--------------------|--|
| ipui | <i>Hex Integer</i> | Ten-digit DECT handset identifier or telephone port number (1 or 2). |
| number | <i>String</i> | Phone number, a string consisting of digits from 0 to 9 as well as the symbols # and *. The length of the string is up to 19 characters. |

Example

```
(show)> nvox try-dial 034725D054 1234567
```

```

    line: 1
    line_id: 1
    line_name: 1001
    status: registered
    code: 200
    description: OK

```

```
(show)> nvox try-dial 1 1234567
```

```

    line: 1
    line_id: 1
    line_name: 1001
    status: registered
    code: 200
    description: OK

```

History

| Version | Description |
|---------|--|
| 3.05 | The show nvox try-dial command has been introduced. |

C.38 show nvox try-dial-ext

Description

Show the routing of an outgoing call to a specified telephone number for all DECT handsets or telephone ports registered in the system. The command output for each handset displays a list of phone lines that are allowed to make an outgoing call from that handset. The lines in the list are displayed according to their priority — the higher the line in the list, the higher its priority. For the outgoing call the system selects the line with the highest priority and successful SIP registration (status "registered").

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> nvox try-dial-ext <number>
```

Arguments

| Argument | Value | Description |
|----------|---------------|--|
| number | <i>String</i> | Phone number, a string consisting of digits from 0 to 9 as well as the symbols # and *. The length of the string is up to 19 characters. |

Example

```
(show)> nvox try-dial-ext 1234567

  number: 1234567

  handset:
    name: phone 1

    line:
      id: 1
      name: 1001
      status: registered

  handset:
    name: phone 2

    line:
      id: 3
      name: 1003
      status: registered

    line:
      id: 2
```

```
name: 1002
status: unregistered
```

History

| Version | Description |
|---------|--|
| 3.05 | The show nvox try-dial-ext command has been introduced. |

C.39 show nvox whitelist

Description Show the whitelist configured for the SIP line.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> nvox whitelist <id>`

Arguments

| Argument | Value | Description |
|----------|---------------|---|
| id | <i>String</i> | SIP line identifier of Latin letters and numbers from 0 to 9. The maximum string length is 64 characters. |

Example

```
(show)> nvox whitelist 1

line:
  id: 1
  name: nonoh
  whitelist: 1234567890|+79261234567|000123456|1234567
```

History

| Version | Description |
|---------|---|
| 4.01 | The show nvox whitelist command has been introduced. |

SNMP MIB

Management Information Bases (MIBs) are read-only.

The following MIBs are supported:

D.1 SNMPv2-MIB

OID: 1.3.6.1.2.1.1

The following data elements are supported:

- SNMPv2-MIB::sysDescr
- SNMPv2-MIB::sysUpTime
- SNMPv2-MIB::sysContact
- SNMPv2-MIB::sysName
- SNMPv2-MIB::sysLocation
- SNMPv2-MIB::sysServices

D.2 IF-MIB

OID: 1.3.6.1.2.1.2 and 1.3.6.1.2.1.31

The following data elements are supported:

Basical

OID: 1.3.6.1.2.1.2

- IF-MIB::ifNumber
- IF-MIB::ifIndex
- IF-MIB::ifDescr
- IF-MIB::ifType
- IF-MIB::ifMtu
- IF-MIB::ifSpeed
- IF-MIB::ifPhysAddress
- IF-MIB::ifAdminStatus

- IF-MIB::ifOperStatus
- IF-MIB::ifLastChange
- IF-MIB::ifInOctets
- IF-MIB::ifInUcastPkts
- IF-MIB::ifInDiscards
- IF-MIB::ifInErrors
- IF-MIB::ifOutOctets
- IF-MIB::ifOutUcastPkts
- IF-MIB::ifOutDiscards
- IF-MIB::ifOutErrors

Advanced

OID 1.3.6.1.2.1.31

- IF-MIB::ifName
- IF-MIB::ifInMulticastPkts
- IF-MIB::ifInBroadcastPkts
- IF-MIB::ifOutMulticastPkts
- IF-MIB::ifOutBroadcastPkts
- IF-MIB::ifHCInOctets
- IF-MIB::ifHCInUcastPkts
- IF-MIB::ifHCInMulticastPkts
- IF-MIB::ifHCInBroadcastPkts
- IF-MIB::ifHCOctets
- IF-MIB::ifHCOUcastPkts
- IF-MIB::ifHCOMulticastPkts
- IF-MIB::ifHCOBroadcastPkts
- IF-MIB::ifLinkUpDownTrapEnable
- IF-MIB::ifHighSpeed
- IF-MIB::ifPromiscuousMode
- IF-MIB::ifConnectorPresent
- IF-MIB::ifAlias

- IF-MIB::ifCounterDiscontinuityTime

| Main chipset | Switch | Device | Description |
|----------------|------------|--|---|
| MT7621/RT63368 | MT7530 | Keenetic Giga III | 64-bit per port octet counters. 32-bit per port packet counters. Separate per port broadcast, multicast and unicast packet counters. |
| | RTL8370M | Keenetic Ultra II Keenetic LTE | |
| MT7620 | RTL8367B | Keenetic Viva Keenetic Extra | 32-bit per port octet counters & 16-bit per port packet counters. Last counter overflow event time set in IF-MIB::ifCounterDiscontinuityTime. |
| | Integrated | Keenetic 4G III Keenetic Lite II Keenetic Lite III Keenetic Omni Keenetic Omni II | |
| MT7628 | Integrated | Keenetic Start II Keenetic Lite III rev.B Keenetic 4G III rev.B Keenetic Air Keenetic Extra II | 16-bit per port packet counters only. Last counter overflow event time set in IF-MIB::ifCounterDiscontinuityTime. |

D.3 IP-MIB

OID: 1.3.6.1.2.1.49

The following data elements are supported:

- TCP-MIB::tcpRtoAlgorithm
- TCP-MIB::tcpRtoMin
- TCP-MIB::tcpRtoMax
- TCP-MIB::tcpMaxConn
- TCP-MIB::tcpActiveOpens
- TCP-MIB::tcpPassiveOpens
- TCP-MIB::tcpAttemptFails

- TCP-MIB::tcpEstabResets
- TCP-MIB::tcpCurrEstab
- TCP-MIB::tcpInSegs
- TCP-MIB::tcpOutSegs
- TCP-MIB::tcpRetransSegs
- TCP-MIB::tcpInErrs
- TCP-MIB::tcpOutRsts

D.4 UDP-MIB

OID: 1.3.6.1.2.1.50

The following data elements are supported:

- UDP-MIB::udpInDatagrams
- UDP-MIB::udpNoPorts
- UDP-MIB::udpInErrors
- UDP-MIB::udpOutDatagrams
- UDP-MIB::udpHCInDatagrams
- UDP-MIB::udpHCOutDatagrams

D.5 HOST-RESOURCES-MIB

OID: 1.3.6.1.2.1.25

The following data elements are supported:

- HOST-RESOURCES-MIB::hrSystemUptime

D.6 UCD-SNMP-MIB

OID 1.3.6.1.4.1.2021

The following data elements are supported:

- RAM info**
- UCD-SNMP-MIB::memTotalReal
 - UCD-SNMP-MIB::memAvailReal
 - UCD-SNMP-MIB::memShared
 - UCD-SNMP-MIB::memBuffer

- UCD-SNMP-MIB::memCached
- USB-storage info**
- UCD-SNMP-MIB::dskIndex
 - UCD-SNMP-MIB::dskPath
 - UCD-SNMP-MIB::dskTotal
 - UCD-SNMP-MIB::dskAvail
 - UCD-SNMP-MIB::dskUsed
 - UCD-SNMP-MIB::dskPercent
 - UCD-SNMP-MIB::dskPercentNode
- System load info**
- UCD-SNMP-MIB::laIndex
 - UCD-SNMP-MIB::laNames
 - UCD-SNMP-MIB::laLoad
 - UCD-SNMP-MIB::laConfig
 - UCD-SNMP-MIB::laLoadInt
 - UCD-SNMP-MIB::ssCpuRawUser
 - UCD-SNMP-MIB::ssCpuRawNice
 - UCD-SNMP-MIB::ssCpuRawSystem
 - UCD-SNMP-MIB::ssCpuRawIdle
 - UCD-SNMP-MIB::ssRawInterrupts
 - UCD-SNMP-MIB::ssRawContexts

IPsec Encryption Levels

The encryption level defines a set of *IKE* and *IPsec SA* algorithms.

Below a complete list of algorithms is displayed for each level in order of decreasing priority, as well as a set of commands **crypto ike proposal** to setup this profile manually.

In the list of algorithms is indicated:

- encryption with key length
- hash function for *HMAC* forming
- *PFS* mode (NO if disabled)

E.1 weak

| Protocol | Encryption | Proposal |
|----------|---------------------------|------------------------|
| IKEv1 | AES-128-CBC/SHA1/MODP1024 | encryption aes-128-cbc |
| | AES-128-CBC/SHA1/MODP768 | encryption 3des |
| | AES-128-CBC/MD5/MODP1024 | encryption des |
| | AES-128-CBC/MD5/MODP768 | integrity sha1 |
| | 3DES-CBC/SHA1/MODP1024 | integrity md5 |
| | 3DES-CBC/SHA1/MODP768 | dh-group 2 |
| | 3DES-CBC/MD5/MODP1024 | dh-group 1 |
| | 3DES-CBC/MD5/MODP768 | |
| | DES-CBC/SHA1/MODP1024 | |
| | DES-CBC/SHA1/MODP768 | |
| | DES-CBC/MD5/MODP1024 | |
| | DES-CBC/MD5/MODP768 | |
| IKEv2 | AES-128-CBC/SHA1/MODP1024 | encryption aes-128-cbc |
| | AES-128-CBC/SHA1/MODP768 | encryption 3des |
| | AES-128-CBC/MD5/MODP1024 | encryption des |
| | AES-128-CBC/MD5/MODP768 | integrity sha1 |

| Protocol | Encryption | Proposal |
|----------|------------------------|--------------------|
| | 3DES-CBC/SHA1/MODP1024 | integrity md5 |
| | 3DES-CBC/SHA1/MODP768 | dh-group 2 |
| | 3DES-CBC/MD5/MODP1024 | dh-group 1 |
| | 3DES-CBC/MD5/MODP768 | |
| | DES-CBC/SHA1/MODP1024 | |
| | DES-CBC/SHA1/MODP768 | |
| | DES-CBC/MD5/MODP1024 | |
| | DES-CBC/MD5/MODP768 | |
| IPsec SA | DES/MD5 | cypher esp-des |
| | AES-128-CBC/SHA1 | cypher esp-3des |
| | 3DES-CBC/SHA1 | cypher esp-aes-128 |
| | DES/SHA1 | hmac esp-md5-hmac |
| | AES-128-CBC/MD5 | hmac esp-sha1-hmac |
| | 3DES-CBC/MD5 | |

E.2 weak-pfs

| Protocol | Encryption | Proposal |
|----------|---------------------------|------------------------|
| IKEv1 | AES-128-CBC/SHA1/MODP1024 | encryption aes-128-cbc |
| | AES-128-CBC/SHA1/MODP768 | encryption 3des |
| | AES-128-CBC/MD5/MODP1024 | encryption des |
| | AES-128-CBC/MD5/MODP768 | integrity sha1 |
| | 3DES-CBC/SHA1/MODP1024 | integrity md5 |
| | 3DES-CBC/SHA1/MODP768 | dh-group 2 |
| | 3DES-CBC/MD5/MODP1024 | dh-group 1 |
| | 3DES-CBC/MD5/MODP768 | |
| | DES-CBC/SHA1/MODP1024 | |
| | DES-CBC/SHA1/MODP768 | |
| | DES-CBC/MD5/MODP1024 | |
| | DES-CBC/MD5/MODP768 | |

| Protocol | Encryption | Proposal |
|---------------------------|---------------------------|------------------------|
| IKEv2 | AES-128-CBC/SHA1/MODP1024 | encryption aes-128-cbc |
| | AES-128-CBC/SHA1/MODP768 | encryption 3des |
| | AES-128-CBC/MD5/MODP1024 | encryption des |
| | AES-128-CBC/MD5/MODP768 | integrity sha1 |
| | 3DES-CBC/SHA1/MODP1024 | integrity md5 |
| | 3DES-CBC/SHA1/MODP768 | dh-group 2 |
| | 3DES-CBC/MD5/MODP1024 | dh-group 1 |
| | 3DES-CBC/MD5/MODP768 | |
| | DES-CBC/SHA1/MODP1024 | |
| | DES-CBC/SHA1/MODP768 | |
| | DES-CBC/MD5/MODP1024 | |
| | DES-CBC/MD5/MODP768 | |
| | IPsec SA | DES/MD5/MODP1024 |
| AES-128-CBC/SHA1 | | cypher esp-3des |
| 3DES-CBC/SHA1 | | cypher esp-aes-128 |
| DES/SHA1 | | hmac esp-md5-hmac |
| AES-128-CBC/MD5 | | hmac esp-sha1-hmac |
| 3DES-CBC/MD5 | | dh-group 2 |
| AES-128-CBC/SHA1/MODP1024 | | dh-group 1 |
| 3DES-CBC/SHA1/MODP1024 | | |
| DES-CBC/SHA1/MODP1024 | | |
| AES-128-CBC/SHA1/MODP768 | | |
| 3DES-CBC/SHA1/MODP768 | | |
| DES-CBC/SHA1/MODP768 | | |
| AES-128-CBC/MD5/MODP1024 | | |
| 3DES-CBC/MD5/MODP1024 | | |
| AES-128-CBC/MD5/MODP768 | | |
| 3DES-CBC/MD5/MODP768 | | |
| DES-CBC/MD5/MODP768 | | |

E.3 normal

| Protocol | Encryption | Proposal |
|------------------|-----------------------------|------------------------|
| IKEv1 | AES-256-CBC/SHA1/MODP1536 | encryption aes-256-cbc |
| | AES-256-CBC/SHA1/ECP384 | encryption aes-128-cbc |
| | AES-256-CBC/SHA1/MODP2048 | encryption 3des |
| | AES-256-CBC/SHA1/MODP1024 | integrity sha1 |
| | AES-128-CBC/SHA1/MODP1536 | integrity sha256 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 5 |
| | AES-128-CBC/SHA1/MODP1024 | dh-group 20 |
| | 3DES-CBC/SHA1/MODP2048 | dh-group 14 |
| | 3DES-CBC/SHA1/MODP1536 | dh-group 2 |
| | 3DES-CBC/SHA1/MODP1024 | dh-group 26 |
| | AES-256-CBC/SHA256/MODP1024 | |
| | AES-128-CBC/SHA256/MODP1024 | |
| | 3DES-CBC/SHA256/MODP1024 | |
| IKEv2 | AES-256-CBC/SHA256/MODP1024 | encryption aes-256-cbc |
| | AES-128-CBC/SHA256/MODP1024 | encryption aes-128-cbc |
| | 3DES-CBC/SHA256/MODP1024 | encryption 3des |
| | AES-256-CBC/SHA1/MODP1024 | integrity sha256 |
| | AES-256-CBC/SHA1/ECP384 | integrity sha1 |
| | AES-256-CBC/SHA1/MODP2048 | dh-group 2 |
| | AES-128-CBC/SHA1/MODP1024 | dh-group 20 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 14 |
| | AES-256-CBC/SHA256/MODP2048 | dh-group 5 |
| | 3DES-CBC/SHA1/MODP2048 | dh-group 26 |
| | 3DES-CBC/SHA1/MODP1536 | |
| | 3DES-CBC/SHA1/MODP1024 | |
| | IPsec SA | AES-128-CBC/SHA1 |
| AES-256-CBC/SHA1 | | cypher esp-aes-256 |

| Protocol | Encryption | Proposal |
|----------|--------------------|----------------------|
| | 3DES-CBC/SHA1 | cypher esp-3des |
| | AES-128-CBC/SHA256 | hmac esp-sha1-hmac |
| | AES-256-CBC/SHA256 | hmac esp-sha256-hmac |
| | 3DES-CBC/SHA256 | |

E.4 normal-pfs

| Protocol | Encryption | Proposal |
|----------|-----------------------------|------------------------|
| IKEv1 | AES-256-CBC/SHA1/MODP1536 | encryption aes-256-cbc |
| | AES-256-CBC/SHA1/ECP384 | encryption aes-128-cbc |
| | AES-256-CBC/SHA1/MODP2048 | encryption 3des |
| | AES-256-CBC/SHA1/MODP1024 | integrity sha1 |
| | AES-128-CBC/SHA1/MODP1536 | integrity sha256 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 5 |
| | AES-128-CBC/SHA1/MODP1024 | dh-group 20 |
| | 3DES-CBC/SHA1/MODP2048 | dh-group 14 |
| | 3DES-CBC/SHA1/MODP1536 | dh-group 2 |
| | 3DES-CBC/SHA1/MODP1024 | dh-group 26 |
| | AES-256-CBC/SHA256/MODP1024 | |
| | AES-128-CBC/SHA256/MODP1024 | |
| | 3DES-CBC/SHA256/MODP1024 | |
| IKEv2 | AES-256-CBC/SHA256/MODP1024 | encryption aes-256-cbc |
| | AES-128-CBC/SHA256/MODP1024 | encryption aes-128-cbc |
| | 3DES-CBC/SHA256/MODP1024 | encryption 3des |
| | AES-256-CBC/SHA1/MODP1024 | integrity sha256 |
| | AES-256-CBC/SHA1/ECP384 | integrity sha1 |
| | AES-256-CBC/SHA1/MODP2048 | dh-group 2 |
| | AES-128-CBC/SHA1/MODP1024 | dh-group 20 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 14 |
| | AES-256-CBC/SHA256/MODP2048 | dh-group 5 |

| Protocol | Encryption | Proposal |
|----------|---------------------------|----------------------|
| | 3DES-CBC/SHA1/MODP2048 | dh-group 26 |
| | 3DES-CBC/SHA1/MODP1536 | |
| | 3DES-CBC/SHA1/MODP1024 | |
| IPsec SA | AES-128-CBC/SHA1/MODP1024 | esp-aes-128 |
| | AES-128-CBC/SHA1 | cypher esp-aes-256 |
| | AES-256-CBC/SHA1 | cypher esp-3des |
| | 3DES-CBC/SHA1 | hmac esp-sha1-hmac |
| | AES-256-CBC/SHA1/MODP1536 | hmac esp-sha256-hmac |
| | AES-128-CBC/SHA1/MODP1536 | dh-group 2 |
| | 3DES-CBC/SHA1/MODP1536 | dh-group 14 |
| | AES-256-CBC/SHA1/MODP1024 | |
| | 3DES-CBC/SHA1/MODP1024 | |

E.5 normal-3des

| Protocol | Encryption | Proposal |
|----------|-----------------------------|------------------------|
| IKEv1 | AES-256-CBC/SHA1/MODP1536 | encryption aes-256-cbc |
| | AES-256-CBC/SHA1/ECP384 | encryption aes-128-cbc |
| | AES-256-CBC/SHA1/MODP2048 | encryption 3des |
| | AES-256-CBC/SHA1/MODP1024 | integrity sha1 |
| | AES-128-CBC/SHA1/MODP1536 | integrity sha256 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 5 |
| | AES-128-CBC/SHA1/MODP1024 | dh-group 20 |
| | 3DES-CBC/SHA1/MODP2048 | dh-group 14 |
| | 3DES-CBC/SHA1/MODP1536 | dh-group 2 |
| | 3DES-CBC/SHA1/MODP1024 | dh-group 26 |
| | AES-256-CBC/SHA256/MODP1024 | |
| | AES-128-CBC/SHA256/MODP1024 | |
| | 3DES-CBC/SHA256/MODP1024 | |
| IKEv2 | AES-256-CBC/SHA256/MODP1024 | encryption aes-256-cbc |

| Protocol | Encryption | Proposal |
|----------|-----------------------------|------------------------|
| | AES-128-CBC/SHA256/MODP1024 | encryption aes-128-cbc |
| | 3DES-CBC/SHA256/MODP1024 | encryption 3des |
| | AES-256-CBC/SHA1/MODP1024 | integrity sha256 |
| | AES-256-CBC/SHA1/ECP384 | integrity sha1 |
| | AES-256-CBC/SHA1/MODP2048 | dh-group 2 |
| | AES-128-CBC/SHA1/MODP1024 | dh-group 20 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 14 |
| | AES-256-CBC/SHA256/MODP2048 | dh-group 5 |
| | 3DES-CBC/SHA1/MODP2048 | dh-group 26 |
| | 3DES-CBC/SHA1/MODP1536 | |
| | 3DES-CBC/SHA1/MODP1024 | |
| IPsec SA | 3DES-CBC/SHA1 | cypher esp-3des |
| | AES-256-CBC/SHA1 | cypher esp-aes-256 |
| | AES-128-CBC/SHA1 | cypher esp-aes-128 |
| | 3DES-CBC/SHA256 | hmac esp-sha1-hmac |
| | AES-256-CBC/SHA256 | hmac esp-sha256-hmac |
| | AES-128-CBC/SHA256 | |

E.6 normal-3des-pfs

| Protocol | Encryption | Proposal |
|----------|---------------------------|------------------------|
| IKEv1 | AES-256-CBC/SHA1/MODP1536 | encryption aes-256-cbc |
| | AES-256-CBC/SHA1/ECP384 | encryption aes-128-cbc |
| | AES-256-CBC/SHA1/MODP2048 | encryption 3des |
| | AES-256-CBC/SHA1/MODP1024 | integrity sha1 |
| | AES-128-CBC/SHA1/MODP1536 | integrity sha256 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 5 |
| | AES-128-CBC/SHA1/MODP1024 | dh-group 20 |
| | 3DES-CBC/SHA1/MODP2048 | dh-group 14 |
| | 3DES-CBC/SHA1/MODP1536 | dh-group 2 |

| Protocol | Encryption | Proposal |
|----------|--|--|
| | 3DES-CBC/SHA1/MODP1024 AES-256-CBC/SHA256/MODP1024 AES-128-CBC/SHA256/MODP1024 3DES-CBC/SHA256/MODP1024 | dh-group 26 |
| IKEv2 | AES-256-CBC/SHA256/MODP1024 AES-128-CBC/SHA256/MODP1024 3DES-CBC/SHA256/MODP1024 AES-256-CBC/SHA1/MODP1024 AES-256-CBC/SHA1/ECP384 AES-256-CBC/SHA1/MODP2048 AES-128-CBC/SHA1/MODP1024 AES-128-CBC/SHA1/ECP256 AES-256-CBC/SHA256/MODP2048 3DES-CBC/SHA1/MODP2048 3DES-CBC/SHA1/MODP1536 3DES-CBC/SHA1/MODP1024 | encryption aes-256-cbc encryption aes-128-cbc encryption 3des integrity sha256 integrity sha1 dh-group 2 dh-group 20 dh-group 14 dh-group 5 dh-group 26 |
| IPsec SA | 3DES-CBC/SHA1/MODP1024 3DES-CBC/SHA1 AES-256-CBC/SHA1 AES-128-CBC/SHA1 AES-256-CBC/SHA1/MODP1536 AES-128-CBC/SHA1/MODP1536 3DES-CBC/SHA1/MODP1536 AES-256-CBC/SHA1/MODP1024 AES-128-CBC/SHA1/MODP1024 | cypher esp-3des cypher esp-aes-256 cypher esp-aes-128 hmac esp-sha1-hmac hmac esp-sha256-hmac dh-group 2 dh-group 14 |

E.7 high

| Protocol | Encryption | Proposal |
|----------|-----------------------------|------------------------|
| IKEv1 | AES-256-CBC/SHA256/MODP1024 | encryption aes-256-cbc |

| Protocol | Encryption | Proposal |
|----------|-----------------------------|------------------------|
| | AES-256-CBC/SHA256/ECP384 | encryption aes-128-cbc |
| | AES-256-CBC/SHA256/MODP1536 | integrity sha256 |
| | AES-256-CBC/SHA1/MODP2048 | integrity sha1 |
| | AES-256-CBC/SHA1/ECP384 | dh-group 2 |
| | AES-256-CBC/SHA1/MODP1536 | dh-group 20 |
| | AES-128-CBC/SHA1/MODP2048 | dh-group 5 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 14 |
| | AES-128-CBC/SHA1/MODP1536 | dh-group 26 |
| IKEv2 | AES-256-CBC/SHA256/MODP1024 | encryption aes-256-cbc |
| | AES-256-CBC/SHA256/ECP384 | encryption aes-128-cbc |
| | AES-256-CBC/SHA256/MODP1536 | integrity sha256 |
| | AES-256-CBC/SHA1/MODP2048 | integrity sha1 |
| | AES-256-CBC/SHA1/ECP384 | dh-group 2 |
| | AES-256-CBC/SHA1/MODP1536 | dh-group 20 |
| | AES-128-CBC/SHA1/MODP2048 | dh-group 5 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 14 |
| | AES-128-CBC/SHA1/MODP1536 | dh-group 26 |
| IPsec SA | AES-256-CBC/SHA256 | cypher esp-aes-256 |
| | AES-128-CBC/SHA256 | cypher esp-aes-128 |
| | | hmac esp-hmac-sha256 |

E.8 strong

| Protocol | Encryption | Proposal |
|----------|---------------------------|------------------------|
| IKEv1 | AES-256-CBC/SHA1/MODP2048 | encryption aes-256-cbc |
| | AES-256-CBC/SHA1/ECP384 | encryption aes-128-cbc |
| | AES-256-CBC/SHA1/MODP1536 | integrity sha1 |
| | AES-128-CBC/SHA1/MODP2048 | dh-group 14 |
| | AES-128-CBC/SHA1/ECP256 | dh-group 20 |
| | AES-128-CBC/SHA1/MODP1536 | dh-group 5 |

| Protocol | Encryption | Proposal |
|----------|--|---|
| | | dh-group 26 |
| IKEv2 | AES-256-CBC/SHA1/MODP2048 AES-256-CBC/SHA1/ECP384 AES-256-CBC/SHA1/MODP1536 AES-128-CBC/SHA1/MODP2048 AES-128-CBC/SHA1/ECP256 AES-128-CBC/SHA1/MODP1536 | encryption aes-256-cbc encryption aes-128-cbc integrity sha1 dh-group 14 dh-group 20 dh-group 5 dh-group 26 |
| IPsec SA | AES-256-CBC/SHA1/MODP1536 AES-256-CBC/SHA1/MODP2048 AES-128-CBC/SHA1/MODP2048 AES-128-CBC/SHA1/MODP1536 | cypher esp-aes-256 cypher esp-aes-128 hmac esp-sha1-hmac dh-group 5 dh-group 14 |

E.9 strong-aead

| Protocol | Encryption | Proposal |
|----------|------------------------------------|--|
| IKEv1 | AES-256-GCM-16/PRF-SHA384/ECP384 | aead encryption aes-256-gcm-16 prf sha384 dh-group 20 |
| IKEv2 | AES-256-GCM-16/PRF-SHA384/ECP384 | aead encryption aes-256-gcm-16 prf sha384 dh-group 20 |
| IPsec SA | AES-256-GCM-16 CHACHA20POLY1305 | aead cypher aes-256-gcm-16 |

E.10 strong-aead-pfs

| Protocol | Encryption | Proposal |
|----------|----------------------------------|----------|
| IKEv1 | AES-256-GCM-16/PRF-SHA384/ECP384 | aead |

| Protocol | Encryption | Proposal |
|----------|--|--|
| | | encryption aes-256-gcm-16 prf sha384 dh-group 20 |
| IKEv2 | AES-256-GCM-16/PRF-SHA384/ECP384 | aead encryption aes-256-gcm-16 prf sha384 dh-group 20 |
| IPsec SA | AES-256-GCM-16/ECP384 CHACHA20POLY1305-ECP384 | aead cypher aes-256-gcm-16 dh-group 20 |

