KEENETIC

EXPLORER

AC1200 Mesh Wi-Fi 5 Router with a 3-Port Smart Switch

Command Reference Guide

Model	Explorer (KN-1621)
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Preface

This guide contains Command-Line Interface (CLI) commands to maintain the Explorer 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 Explorer on-site. It is also intended for the operator who manages the Explorer. This manual cover high-level technical support procedures available to Root administrators and Explorer technical support personnel.

2 Organization

This manual covers the following topics:

Introduction to the CLI	Describes how to use the Explorer 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 Explorer 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.
italic font	Arguments for which you supply values are in *italics*.
[*optional*]	Elements in square brackets are optional.
‹*replaceable*›	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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1

Product Overview

1.1 Hardware Configuration

CPU MediaTek MT7628NN MIPS® 24KEc 575 MHz

RAM 128MB DDR2

Flash 32MB

Ethernet

Ports	Chipset	Notes
3	Integrated	

Label	Speed	Notes
0	100 Mbps	WAN port
1	100 Mbps	
2	100 Mbps	

Wi-Fi

Band	Chipset	Notes
2.4 GHz	Integrated	802.11bgn 2x2
5 GHz	MediaTek MT7613BEN	802.11an+ac 2x2, BF, MU-MIMO

2

Introduction to the CLI

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

The primary tool for managing the Explorer 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.

Explorer has three types of settings:

Current settings	*running config* 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	*startup config* 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	*default config* contains factory default settings of Explorer. 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 Explorer 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 192.0.2.0/24 PPTP0
Network::RoutingTable: Added static route: 192.0.2.0/24 via PPTP0.
(config)> ip route 198.51.100.0/24 PPTP0
Network::RoutingTable: Added static route: 198.51.100.0/24 via PPTP0.
(config)> ip route 203.0.113.0/24 PPTP1
Network::RoutingTable: Added static route: 203.0.113.0/24 via PPTP1.
(config)> show running-config
...
ip route 192.0.2.0 255.255.255.0 PPTP0
ip route 198.51.100.0 255.255.255.0 PPTP0
ip route 203.0.113.0 255.255.255.0 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 198.51.100.0/24
Network::RoutingTable: Deleted static route: 198.51.100.0/24 via PPTP0.
(config)> show running-config
...
ip route 192.0.2.0 255.255.255.0 PPTP0
ip route 203.0.113.0 255.255.255.0 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 Explorer 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.

3

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`	*`Filename`*	Full path to the file to be copied in <file system>:<path> format
`destination`	*`Filename`*	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 Explorer device.

Prefix no No

Change settings Yes

Multiple input Yes

Synopsis

(config)> **erase** ‹*filename*›

Arguments

Argument	Value	Description
filename	*Filename*	Specifies the file to be removed.

Example

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

History

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)>
```

History

Version	Description
2.00	The **exit** command has been introduced.

3.1.4 grep

Description Filter and search for lines containing a match to the given pattern in **show** command output.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> *‹command›* **| grep** [-A *‹a›*] [-B *‹b›*] [-C *‹c›*] *‹pattern›*

Arguments

Argument	Value	Description
command	*String*	Command name.
a	*Integer*	Number of lines to show above a match (before the matching line).
b	*Integer*	Number of lines to show below a match (after the matching line).
c	*Integer*	Nesting depth of XML context.
pattern	*String*	A regular expression to search for node names or values in the XML response from the system core.

Example

```
(show)> version | grep dual_image

     ndw:
features: dual_image,wifi_button,usb_3,usb_3_first,
          led_control,wifi5ghz,vht2ghz,bf2ghz,mimo5ghz,
          atf2ghz,atf5ghz,wifi6_5ghz,wifi_ft,wpa3,wsa5ghz,
          hwnat,hwnat_mib,link_agg,cable_diag
```

```
(show)> version | grep -A 1 dual_image

    ndw:
features: dual_image,wifi_button,usb_3,usb_3_first,
          led_control,wifi5ghz,vht2ghz,bf2ghz,mimo5ghz,
          atf2ghz,atf5ghz,wifi6_5ghz,wifi_ft,wpa3,wsa5ghz,
          hwnat,hwnat_mib,link_agg,cable_diag
```

```
(show)> version | grep -B 1 dual_image

       ndw:
  features: dual_image,wifi_button,usb_3,usb_3_first,led_control,
            wifi5ghz,vht2ghz,mimo2ghz,mimo5ghz,atf2ghz,atf5ghz,
            wifi6,wifi_ft,wpa3,wsa5ghz,hwnat,sfp
components: acl,afp,base,chilli,cloudcontrol,corewireless,
            ddns,dhcpd,dlna,dns-filter,dns-https,dns-tls,dot1x,
            easyconfig,eoip,exfat,ext,fat,ftp,gre,hfsplus,igmp,
            ike-client,ip6,ipip,ipsec,l2tp,lang-en,
            lang-ru,mdns,miniupnpd,monitor,mws,nathelper-esp,
            nathelper-ftp,nathelper-h323,nathelper-pptp,
            nathelper-rtsp,nathelper-sip,ndmp,ndns,netflow,
            nextdns,ntce,ntfs,nvox,ocserver,openvpn,opkg,
            opkg-kmod-audio,opkg-kmod-dvb-tuner,opkg-kmod-fs,
            opkg-kmod-netfilter,opkg-kmod-netfilter-addons,
            opkg-kmod-tc,opkg-kmod-usbip,opkg-kmod-video,
           pingcheck,ppe,pppoe,pptp,proxy,sftp,skydns,snmp,ssh,
            sstp,sstp-server,storage,trafficcontrol,
            transmission,tsmb,udpxy,usb,usbdsl,usblte,usbmodem,
            usbnet,usbnet-extra,usbqmi,usbserial-extra,
```

```
            vpnserver,vpnserver-l2tp,webdav,wireguard,wpa-eap,
            zerotier
```

```
(show)> version | grep -C 1 dual_image

       ndw:
  features: dual_image,wifi_button,usb_3,usb_3_first,led_control,
            wifi5ghz,vht2ghz,mimo2ghz,mimo5ghz,atf2ghz,atf5ghz,
            wifi6,wifi_ft,wpa3,wsa5ghz,hwnat,sfp
components: acl,afp,base,chilli,cloudcontrol,corewireless,ddns,
            dhcpd,dlna,dns-filter,dns-https,dns-tls,dot1x,
            easyconfig,eoip,exfat,ext,fat,ftp,gre,hfsplus,igmp,
            ike-client,ip6,ipip,ipsec,l2tp,lang-en,mdns,
            miniupnpd,monitor,mws,nathelper-esp,nathelper-ftp,
            nathelper-h323,nathelper-pptp,nathelper-rtsp,
            nathelper-sip,ndmp,ndns,netflow,nextdns,ntce,ntfs,
            nvox,ocserver,openvpn,opkg,opkg-kmod-audio,
          opkg-kmod-dvb-tuner,opkg-kmod-fs,opkg-kmod-netfilter,
            opkg-kmod-netfilter-addons,opkg-kmod-tc,
           opkg-kmod-usbip,opkg-kmod-video,pingcheck,ppe,pppoe,
            pptp,proxy,sftp,skydns,snmp,ssh,sstp,sstp-server,
            storage,trafficcontrol,transmission,tsmb,udpxy,usb,
            usbdsl,usblte,usbmodem,usbnet,usbnet-extra,usbqmi,
            usbserial-extra,vpnserver,vpnserver-l2tp,webdav,
            wireguard,wpa-eap,zerotier
```

```
(show)> version | grep -C 2 dual_image

          release: 5.00.C.2.0-2
          sandbox: preview
            title: 5.0.2
             arch: aarch64

              ndm:
                exact: 0-a654284
                cdate: 3 Dec 2025

              bsp:
                exact: 0-e7c92fbd89
                cdate: 3 Dec 2025

              ndw:
             features: ►
dual_image,usb_3,usb_3_first,led_control,wifi_button,wifi5ghz,
vht2ghz,mimo2ghz,mimo5ghz,atf2ghz,atf5ghz,wifi6,wifi_ft,wpa3...
           components: ►
acl,afp,base,chilli,cloudcontrol,corewireless,ddns,dhcpd,dlna,
dns-filter,dns-https,dns-tls,dot1x,easyconfig,eoip,exfat...

             ndw3:
              version: 5.0.43

             ndw4:
              version: 5.0.C.2.1
```

```
    manufacturer: Keenetic Ltd.
          vendor: Keenetic
          series: KN
           model: Explorer (KN-1621)
      hw_version: 12108000
         hw_type: router
           hw_id: KN-1621
          device: Explorer
         consent: EA
          region: EA
     description: Keenetic Explorer (KN-1621)
```

History

Version	Description
4.02	The **grep** filter has been introduced.

3.1.5 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	*String*	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.

3.1.6 mkdir

Description Create a new directory.

Prefix no No

Change settings No

Multiple input No

Synopsis

(config)> **mkdir** *‹directory›*

Arguments

Argument	Value	Description
directory	*String*	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.

3.1.7 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	*Filename*	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-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	*String*	Filtering rules list name (*Access Control List*, 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.

3.2.1 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.

3.2.2 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 *source*. 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 *source-port*.
	eq	Operator “equal” to compare the port with the specified *source-port*.
	gt	Operator “greater” to compare the port with the specified *source-port*.
destination	*IP address*	The destination address in the header of IP-packet.
destination-mask	*IP-mask*	Mask to be applied to the destination address in the header of IP-packet before comparison with *destination*.

Argument	Value	Description
		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`	*`Integer`*	Destination port in the *TCP* or *UDP* header.
`destination-end-port`	*`Integer`*	The end of the destination range of ports.
`dst-port-operator`	`lt`	Operator "less" to compare the port with the specified *`destination-port`*.
	`eq`	Operator "equal" to compare the port with the specified *`destination-port`*.
	`gt`	Operator "greater" to compare the port with the specified *`destination-port`*.

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.

3.2.3 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 *source*. 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 *source-port*.

Argument	Value	Description
	`eq`	Operator “equal” to compare the port with the specified *`source-port`*.
	`gt`	Operator “greater” to compare the port with the specified *`source-port`*.
`destination`	*`IP address`*	The destination address in the header of IP-packet.
`destination-mask`	*`IP-mask`*	Mask to be applied to the destination address in the header of IP-packet before comparison with *`destination`*. 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`	*`Integer`*	Destination port in the *TCP* or *UDP* header.
`destination-end-port`	*`Integer`*	The end of the destination range of ports.
`dst-port-operator`	`lt`	Operator “less” to compare the port with the specified *`destination-port`*.
	`eq`	Operator “equal” to compare the port with the specified *`destination-port`*.
	`gt`	Operator “greater” to compare the port with the specified *`destination-port`*.

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 `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.

3.2.4 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
index	*Integer*	The ACL rule number.
disable	*Keyword*	Disable the ACL rule.
schedule	*Schedule*	The name of the schedule that was created with **schedule** group of commands.
order	*Integer*	New position of the ACL rule in the list.
description	*String*	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.

3.3 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`	*Keyword*	Access to the Cloud Control2 is allowed for public, private and protected interfaces.
`private`	*Keyword*	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.

3.4 cloud webui cdn

Description

Configure loading of common web interface elements from a high-speed content delivery network (CDN) to improve the quality of remote management sessions. Recommended when using cloud mode over slow connections. By default, the `auto` mode is set.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

(config)> **cloud webui cdn** *‹mode›*

Arguments

Argument	Value	Description
mode	auto	Web interface content is delivered from the CDN only for requests made via KeenDNS in cloud access mode.
	non-local	Web interface content is delivered from the CDN for any remote management session.
	disable	The CDN is not used. The web interface uses only content stored on the device.

Example

```
(config)> cloud webui cdn auto
Core::Executive::Scgi::Parameters: Set CDN mode to auto.
```

```
(config)> cloud webui cdn disable
Core::Executive::Scgi::Parameters: Set CDN mode to disable.
```

History

Version	Description
5.01	The **cloud webui cdn** command has been introduced.

3.5 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.

3.5.1 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.

3.5.2 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.

3.5.3 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	*Schedule*	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.

3.5.4 components check-update

Description

Check the firmware updates for the candidate or member of Modular Wi-Fi System. The command also displays the current software sandbox.

Prefix no

No

Change settings

No

Multiple input No

Synopsis

(config-comp)> **check-update** [*force*]

Arguments

Argument	Value	Description
force	*Keyword*	Check for updates constantly.

Example

```
(config-comp)> check-update

        sandboxes:
              version: 4.03.C.9.0-0
                 name: lts-4.3

        sandboxes:
              version: 5.01.C.5.0-0
                 name: stable

        sandboxes:
              version: 5.01.C.6.0-1
                 name: preview

        sandboxes:
              version: 5.02.A.9.0-0
                 name: draft

          sandbox: draft
          release: 5.02.A.9.0-0
            title: 5.2 Alpha 9
        timestamp: Sep 16 15:39:11
 update-available: no
auto-update-pending: no
auto-update-enabled: no
         checking: no
```

```
(config-comp)> check-update force

        sandboxes:
              version: 4.03.C.9.0-0
                 name: lts-4.3

        sandboxes:
              version: 5.01.C.5.0-0
                 name: stable

        sandboxes:
              version: 5.01.C.6.0-1
                 name: preview

        sandboxes:
              version: 5.02.A.9.0-0
                 name: draft
```

```
          sandbox:
          release:
 update-available: no
auto-update-pending: no
auto-update-enabled: no
         checking: yes
```

History

Version	Description
2.14	The **components check-update** command has been introduced.
5.00	Description and Example update.

3.5.5 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.

3.5.6 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	*String*	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.

3.5.7 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	*String*	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 *sandbox* parameter has been introduced. The command **components list** should be used in favour of **components sync**.

3.5.8 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.

3.5.9 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.

3.5.10 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›*

Arguments

Argument	Value	Description
component	*String*	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.
```

History

Version	Description
2.00	The **components remove** command has been introduced.

3.5.11 components validity-period

Description Set a validity period of a local component list. After this time the command **components list** will be automalically 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**

Arguments

Argument	Value	Description
`seconds`	*Integer*	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.

3.6 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.

3.7 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	*String*	Name of the key. Latin letters, numbers, dots, hyphens and underscores are acceptable.
psk	*String*	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	*String*	Value of the remote side ID.
any	*Keyword*	Allow the key usage for any remote side.

Example

```
(config)> crypto ike key VirtualIPServer ►
aDjsOC1gvWCsOiE4Ijhs+HRnNPiheGA478 any
IpSec::Manager: "VirtualIPServer": crypto ike key successfully ►
added.
```

```
(config)>  crypto ike key VirtualIPServer ► 
aDjsOC1gvWCsOiE4Ijhs+HRnNPiheGA478R4M6d4+O54LLihe 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.

3.8 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	*Integer*	*MTU* 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.

3.9 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	*Integer*	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.

3.10 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	*String*	*IKE* 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.

3.10.1 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 *IPsec IKE* 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.

3.10.2 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.

3.10.3 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.

3.10.4 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*	*IKE* 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.

3.11 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	*String*	*IKE* 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.

3.11.1 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.

3.11.2 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	*DH* group to work in the *PFS* mode.
	2	
	5	
	14	
	15	
	16	
	17	
	18	
	19	
	20	
	21	
	25	

Argument	Value	Description
	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.

3.11.3 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 *IKE* 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.

3.11.4 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	*HMAC* signature algorithm of *IKE* 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.

3.11.5 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	*HMAC* signature algorithm of *IKE* messages.
	sha1	
	aes-xcbc	
	sha256	
	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.

3.12 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.

3.13 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	*String*	*IPsec* 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.

3.13.1 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.

3.13.2 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.

3.13.3 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: "VPNL2TPServer": crypto ipsec profile DPD action ►
set to "clear".
```

```
(config-ipsec-profile)> no dpd-clear
IpSec::Manager: "VPNL2TPServer": crypto ipsec profile DPD action ►
set to "restart".
```

History

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

3.13.4 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`	*Integer*	The interval of sending *DPD* packets in seconds. Can take values in the range from 2 to 3600.
`retry-count`	*Integer*	Number of attempts to send *DPD* 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.

3.13.5 crypto ipsec profile identity-local

Description

Set a local identifier of *IPsec* profile.

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

Note: The `fqdn` type allows you to select a third-party domain certificate (for example, DynDns service) on the system to connect to the router's IKEv2 *IPSec* server.

To return to auto mode, enter the command with the `ndns` keyword:

```
crypto ipsec profile identity-local fqdn ndns
```

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	IP address.
	fqdn	Full domain name.
	dn	Domain name.
	email	E-mail address.
id	*String*	Local ID value.

Example

```
(config-ipsec-profile)> identity-local address 10.10.10.5
IpSec::Config::Profile: "test": set local ID "10.10.10.5" with ►
type "address".
```

```
(config-ipsec-profile)>identity-local fqdn my.example.com
IpSec::Config::Profile: "VPNL2TPServerIKE2": set local ID ►
"my.example.com" with type "fqdn".
```

```
(config-ipsec-profile)> identity-local fqdn ndns
IpSec::Config::Profile: "VPNL2TPServerIKE2": set local ID "ndns" ►
with type "fqdn".
```

```
(config-ipsec-profile)> identity-local dn mydomain
IpSec::Config::Profile: "test": set local ID "mydomain" with ►
type "dn".
```

```
(config-ipsec-profile)> identity-local email my@example.com
IpSec::Config::Profile: "test": set local ID "my@example.com" ►
with type "email".
```

```
(config-ipsec-profile)> no identity-local
IpSec::Config::Profile: "test": reset local ID.
```

History

Version	Description
2.06	The **crypto ipsec profile identity-local** command has been introduced.
5.00	Added support for custom FQDN as IKEv2 *IPSec* server identity with certificate.

3.13.6 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`	*`String`*	Remote host ID value.
`any`	*`Keyword`*	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.

3.13.7 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.

3.13.8 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	*String*	*IKE* 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.

3.13.9 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	*String*	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.

3.13.10 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.

3.13.11 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 *XAuth* 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.

3.13.12 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 *XAuth* 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.

3.14 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	*Integer*	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.

3.15 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.

3.16 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›*

Arguments

Argument	Value	Description
name	*String*	*IPsec* 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.
```

History

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

3.16.1 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.
```

History

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

3.16.2 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 *IPsec ESP* 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.

3.16.3 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	*DH* group to work in the *PFS* 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.

3.16.4 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	*HMAC* signature algorithm of *IPsec ESP* transformation.
	esp-sha1-hmac	
	esp-sha256-hmac	
	esp-sha512-hmac	
	esp-null-hmac	

Example

```
(config-ipsec-transform)> hmac esp-sha512-hmac
IpSec::Config::TransformSet: "TEST": added auth "esp-sha512-hmac".
```

```
(config-ipsec-transform)> no hmac esp-sha512-hmac
IpSec::Config::TransformSet: "TEST": removed auth ►
"esp-sha512-hmac".
```

History

Version	Description
2.06	The **crypto ipsec transform-set hmac** command has been introduced.
4.02	Added support for **esp-sha512-hmac** on IKE Phase II.

3.16.5 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`	*Integer*	Lifetime of *IPsec* 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.

3.17 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	*String*	*IPsec* 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.

3.17.1 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.

3.17.2 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.

3.17.3 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`	*Integer*	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.

3.17.4 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.

3.17.5 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	*IP address*	Network client address.
mask	*IP-mask*	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.

3.17.6 crypto map l2tp-server dns-servers

Description

Set the *DNS* server that is assigned to clients connecting to the L2TP/IPsec server.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-crypto-map)> **l2tp-server dns-servers** *‹dns1›* [*‹dns2›*]

(config-crypto-map)> **no l2tp-server dns-servers**

Arguments

Argument	Value	Description
dns1	*IP address*	Address of primary DNS server.
dns2	*IP address*	Address of secondary DNS server.

Example

```
(config-crypto-map)> l2tp-server dns-servers 1.1.1.1
IpSec::L2tp::Manager: Set custom DNS server "1.1.1.1".
```

```
(config-crypto-map)> l2tp-server dns-servers 1.1.1.1 8.8.8.8
IpSec::L2tp::Manager: Set custom DNS servers "1.1.1.1" and ►
"8.8.8.8".
```

```
(config-crypto-map)> no l2tp-server dns-servers
IpSec::L2tp::Manager: Disabled custom DNS servers.
```

History

Version	Description
5.00	The **crypto map l2tp-server dns-servers** command has been introduced.

3.17.7 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.

3.17.8 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	*Interface*	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.

3.17.9 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.

3.17.10 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`	*Integer*	Interval between sending *LCP* echo, in seconds. If within the specified time interval there is no *LCP* echo request from the remote location, the same request will be sent there asking for response *LCP* reply.
`count`	*Integer*	The number of consecutive requests *LCP* echo sent, for which no response *LCP* reply was received. If count of *LCP* 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.

3.17.11 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** *‹mru›*

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

Arguments

Argument	Value	Description
mru	*Integer*	*MRU* 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.

3.17.12 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** ‹*mtu*›

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

Arguments

Argument	Value	Description
mtu	*Integer*	*MTU* 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.

3.17.13 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.

3.17.14 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.

3.17.15 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`	*IP address*	Start address of pool.
`end`	*IP address*	End address of pool.
`size`	*Integer*	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.

3.17.16 crypto map l2tp-server session-logout

Description Terminate an active or stalled session on the *L2TP* server.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(config-crypto-map)> **session-logout** *‹session›*

Arguments

Argument	Value	Description
session	*Integer*	Identifier of the L2TP session (can be viewed using the **show crypto map** command).

Example

```
(config-crypto-map)> session-logout 3
IpSec::L2tp::Manager: Session "3" is terminated.
```

History

Version	Description
4.03	The **crypto map l2tp-server session-logout** command has been introduced.

3.17.17 crypto map l2tp-server session-preempt

Description Enable to preempt VPN sessions when **crypto map l2tp-server multi-login** option is disabled for the *L2TP* server.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-crypto-map)> **l2tp-server session-preempt**

(config-crypto-map)> **no l2tp-server session-preempt**

Example

```
(config-crypto-map)> l2tp-server session-preempt
IpSec::L2tp::Manager: Enabled session preemption.
```

```
(config-crypto-map)> no l2tp-server session-preempt
IpSec::L2tp::Manager: Disabled session preemption.
```

History

Version	Description
4.03	The **crypto map l2tp-server session-preempt** command has been introduced.

3.17.18 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`	*`String`*	Username.
`address`	*`IP address`*	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.

3.17.19 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.

3.17.20 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.

3.17.21 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	*String*	IP address or domain name of remote host.
	any	Accept any incoming connections.

Example

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

3.17.22 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	*String*	IP address or domain name of remote host.

Example

```
(config-crypto-map)> set-peer-fallback example.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.

3.17.23 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	*String*	*IPsec* 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
   VPNL2TPServer
```

```
(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.

3.17.24 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 identifiy *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`	*Integer*	*MSS* 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.

3.17.25 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.

3.17.26 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	*String*	Name of local object group.
remote	*String*	Name of remote object group.

Example

```
(config-crypto-map)> traffic-selectors ►
_WEBADMIN_IPSEC_VPNL2TPServe-local ►
_WEBADMIN_IPSEC_VPNL2TPServe-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.

3.17.27 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	*Interface*	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.

3.17.28 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	*IP address*	Network client address.
mask	*IP-mask*	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.

3.17.29 crypto map virtual-ip dns-servers

Description

Set the *DNS* server that is assigned to clients connecting to the IKEv1 or IKEv2 *IPSec* server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-crypto-map)> **virtual-ip dns-servers** *‹dns1›* [*‹dns2›*]

(config-crypto-map)> **no virtual-ip dns-servers**

Arguments

Argument	Value	Description
dns1	*IP address*	Address of primary DNS server.
dns2	*IP address*	Address of secondary DNS server.

Example

```
(config-crypto-map)> virtual-ip dns-servers 1.1.1.1
IpSec::VirtualIp::CryptoMap: Set custom DNS server "1.1.1.1".
```

```
(config-crypto-map)> virtual-ip dns-servers 1.1.1.1 8.8.8.8
IpSec::VirtualIp::CryptoMap: Set custom DNS servers "1.1.1.1" ►
and "8.8.8.8".
```

```
(config-crypto-map)> no virtual-ip dns-servers
IpSec::VirtualIp::CryptoMap: Disabled custom DNS servers.
```

History

Version	Description
5.00	The **crypto map virtual-ip dns-servers** command has been introduced.

3.17.30 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.

3.17.31 crypto map virtual-ip interface

Description

Bind Virtual IP server to the specified interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-crypto-map)> **virtual-ip interface** ‹*interface*›

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

```
(config-crypto-map)> virtual-ip interface Bridge0
IpSec::VirtualIp::CryptoMap: "VirtualIPServerIKE2": bound to ►
Bridge0.
```

```
(config-crypto-map)> no virtual-ip interface
IpSec::VirtualIp::CryptoMap: "VirtualIPServerIKE2": unbound.
```

History

Version	Description
4.02	The **crypto map virtual-ip interface** command has been introduced.

3.17.32 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.

3.17.33 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.

3.17.34 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	*IP address*	The beginning of the address range.
end	*IP address*	The end of the address range.
size	*Integer*	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.

3.17.35 crypto map virtual-ip session-logout

Description Terminate an active or stalled session on the Virtual IP server.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(config-crypto-map)> **session-logout** *‹session›*

Arguments

Argument	Value	Description
session	*Integer*	Identifier of the IKE session (can be viewed using the **show crypto map** command).

Example

```
(config-crypto-map)> session-logout 1
IpSec::VirtualIp::Manager: Session "1" is terminated.
```

History

Version	Description
4.03	The **crypto map virtual-ip session-logout** command has been introduced.

3.17.36 crypto map virtual-ip session-preempt

Description

Enable to preempt VPN sessions when **crypto map virtual-ip multi-login** option is disabled for the IKEv1 or IKEv2 *IPSec* server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-crypto-map)> **virtual-ip session-preempt**

(config-crypto-map)> **no virtual-ip session-preempt**

Example

```
(config-crypto-map)> virtual-ip session-preempt
IpSec::VirtualIp::CryptoMap: "VirtualIPServerIKE2": enable ►
session preemption.
```

```
(config-crypto-map)> no virtual-ip session-preempt
IpSec::VirtualIp::CryptoMap: "VirtualIPServerIKE2": disable ►
session preemption.
```

History

Version	Description
4.03	The **crypto map virtual-ip session-preempt** command has been introduced.

3.17.37 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	*String*	Username.
address	*IP address*	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.

3.18 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.

3.18.1 dns-proxy debug

Description

Enable debug for the DNS proxy service. By default, setting is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

(config-dnspx)> **debug**

(config-dnspx)> **no debug**

Example

```
(config-dnspx)> debug
```

```
(config-dnspx)> no debug
```

History

Version	Description
5.00	The **dns-proxy debug** command has been introduced.

3.18.2 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.

Argument	Value	Description
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-dnspx)> 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-dnspx)> 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.

3.18.3 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-dnspx)> **filter assign host profile** *‹host› ‹profile›*

(config-dnspx)> **no filter assign host profile** [*‹host›*]

Arguments

Argument	Value	Description
host	*MAC address*	Network device MAC address.
profile	*String*	Profile name.

Example

```
(config-dnspx)> 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-dnspx)> 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-dnspx)> 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.

3.18.4 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`	*Interface*	Network interface name. Must have a private or protected security level.
`preset`	*String*	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.

3.18.5 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`	*Interface*	Network interface name. Must have a private or protected security level.
`profile`	*String*	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.

3.18.6 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.

3.18.7 dns-proxy filter profile

Description Create a custom 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	*String*	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.

3.18.8 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	*String*	Profile name.
description	*String*	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.

3.18.9 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	*String*	Profile name.
address	*IP address*	IP address of the server.
port	*Integer*	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.

3.18.10 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	*String*	Profile name.
url	*String*	URL of DNS service.
hash	*String*	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.

3.18.11 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**

Arguments

Argument	Value	Description
name	*String*	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".
```

History

Version	Description
3.09	The **dns-proxy filter profile intercept enable** command has been introduced.

3.18.12 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*›]

Arguments

Argument	Value	Description
name	*String*	Profile name.
address	*IP address* *FQDN*	Address of the server.

Argument	Value	Description
port	*Integer*	The server port.
fqdn	*String*	Full domain name.
hash	*String*	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.

3.18.13 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	*String*	Custom URL of DNS service.
format	dnsm	The format to represent DNS data.
	json	
hash	*String*	Hash TLS certificate.
interface	*Interface*	Interface name to configure.

Argument	Value	Description
domain	*String*	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.example.com/dns-query ► 
dnsm domain my.lib
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ► 
"https://my.example.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.

3.18.14 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.

3.18.15 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`	*Integer*	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.

3.18.16 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`	*Integer*	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.

3.18.17 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`	*Keyword*	Block responses that point to IP addresses belonging to `private` network segments.
`strict`	*Keyword*	Block responses that point to IP addresses belonging to subnets listed in the IANA IPv4 Special-Purpose Address Registry[1].

Example

```
(config-dnspx)> rebind-protect auto
Dns::Manager: Enabled rebind protection.
(config-dnspx)> no rebind-protect
Dns::Manager: Disabled rebind protection.
```

History

Version	Description
3.04	The **dns-proxy rebind-protect** command has been introduced.

3.18.18 dns-proxy route object-group

Description

Create DNS routing based on an FQDN object group with automatic name resolution.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

(config-dnspx)> **route object-group** ‹*group*› ((‹*gateway*› [‹*interface*›]) | ‹*interface*›) [**auto**] [**reject**]

(config-dnspx)> **no route** [**object-group** ‹*group*›] [‹*interface*›]

Arguments

Argument	Value	Description
`group`	*String*	The FQDN object group name.
`gateway`	*IP address*	IPv4 or IPv6 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.
`interface`	*Interface*	Interface full name or an alias.

[1] https://www.iana.org/assignments/iana-ipv4-special-registry/iana-ipv4-special-registry.xhtml

Argument	Value	Description
		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.
`auto`	*Keyword*	Allows you to apply the route when specified gateway becomes available.
`reject`	*Keyword*	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-dnspx)> route object-group domain-list0 Wireguard0
Dns::Route::Manager: "domain-list0": added DNS route.

(config-dnspx)> route object-group domain-list0 Wireguard0 auto
Dns::Route::Manager: "domain-list0": updated DNS route.

(config-dnspx)> route object-group domain-list0 10.1.111.12 ►
Wireguard0 auto reject
Dns::Route::Manager: "domain-list0": updated DNS route.

(config-dnspx)> route object-group domain-list0 ►
fe80::11a0:e7ff:fef5:6392 Wireguard0 auto reject
Dns::Route::Manager: "domain-list0": updated DNS route.

(config-dnspx)> route object-group domain-list0 Wireguard0 auto ►
reject
Dns::Route::Manager: "domain-list0": updated DNS route.

(config-dnspx)> no route object-group domain-list0 Wireguard0
Dns::Route::Manager: Deleted DNS route to "domain-list0".

(config-dnspx)> no route
Dns::Route::Manager: Cleared all DNS routes.
```

History

Version	Description
5.00	The **dns-proxy route object-group** command has been introduced.

3.18.19 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	*Integer*	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.

3.18.20 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	*IP address*	IP address of the server.
port	*Integer*	The server port.
fqdn	*String*	Full domain name.
hash	*String*	Hash TLS certificate.

Argument	Value	Description
`interface`	*`Interface`*	Interface name to configure.
`domain`	*`String`*	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 203.0.113.143 853 sni my.example.com ►
domain my.lib
Dns::Secure::ManagerDot: DNS-over-TLS name server ►
203.0.113.143:853 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.

3.19 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.
```

History

Version	Description
3.05	The **dpn accept** command has been introduced.

3.20 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›*

Arguments

Argument	Value	Description
name	*String*	The profile name. Maximum name length is 64 characters.

Example

```
(config)>  dyndns profile _WEBADMIN
Core::Configurator: Done.
(config-dyndns)>
```

History

Version	Description
2.00	The **dyndns profile** command has been introduced.

3.20.1 dyndns profile domain

Description

Assign permanent domain name to the computer. You need to register this domain name on the site dyndns.com[2] or no-ip.com[3] before execution.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

[2] http:\\www.dyndns.com
[3] http:\\www.no-ip.com

Synopsis

(config-dyndns)> **domain** *‹domain›*

(config-dyndns)> **no domain**

Arguments

Argument	Value	Description
domain	*String*	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.

3.20.2 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**

Arguments

Argument	Value	Description
password	*String*	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.

3.20.3 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.

3.20.4 dyndns profile type

Description Set DynDns type depending on the site where the domain name was registered.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-dyndns)> **type** *‹type›*

(config-dyndns)> **no type**

Arguments

Argument	Value	Description
type	dyndns	The domain name is registered on the account.dyn.com[4] site.

[4] https://account.dyn.com

Argument	Value	Description
	noip	The domain name is registered on the noip.com[5] site.
	opendns	The domain name is registered on the opendns.com[6] site.
	dnsomatic	The domain name is registered on the dnsomatic.com[7] site.
	anydns	The domain name is registered on the anydns.info[8] site.
	dnshome	The domain name is registered on the dnshome.de[9] site.
	duckdns	The domain name is registered on the duckdns.org[10] site.
	dyndnsfree	The domain name is registered on the dyndnsfree.de[11] site.
	desec	The domain name is registered on the desec.io[12] site.
	custom	The domain name is 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.

3.20.5 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

[5] https://www.noip.com
[6] https://www.opendns.com
[7] https://dnsomatic.com
[8] https://www.anydns.info
[9] https://www.dnshome.de
[10] https://www.duckdns.org
[11] https://www.dyndnsfree.de
[12] https://desec.io

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	*Integer*	Interval time in days.
hours	*Integer*	Interval time in hours.
minutes	*Integer*	Interval time in minutes.
seconds	*Integer*	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.

3.20.6 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	*String*	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.

3.20.7 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	*String*	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.

3.21 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.

3.21.1 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.

3.21.2 easyconfig check max-fails

Description Specify the number of consecutive failed requests to the cloud service to conclude that the internet is unavailable. 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	*Integer*	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.

3.21.3 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	*Integer*	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.

3.22 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.

3.23 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.

3.24 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.

3.24.1 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
Igmp::Proxy: Enabled Fast Leave.
```

```
(igmp-proxy)> no fast-leave
Igmp::Proxy: Disabled Fast Leave.
```

History

Version	Description
3.09	The **igmp-proxy fast-leave** command has been introduced.

3.24.2 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**

Arguments

Argument	Value	Description
protocol	igmp-v1	Apply filtering to incoming packets.
	igmp-v2	Apply filtering to outgoing packets.

Example

```
(igmp-proxy)> force igmp-v1
Igmp::Proxy: Forced protocol: igmp-v1.
```

```
(igmp-proxy)> no force
Igmp::Proxy: Enabled IGMP auto-detect.
```

History

Version	Description
2.08	The **igmp-proxy force** command has been introduced.

3.25 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
Igmp::Snooping: Disabled.
```

```
(config)> no igmp-snooping disable
Igmp::Snooping: Enabled.
```

History

Version	Description
2.12	The **igmp-snooping disable** command has been introduced.

3.26 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›*

Arguments

Argument	Value	Description
name	*Interface*	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
                     Yota
                   Bridge
                    PPPoE
                 MwsMobile
             SSTPEthernet
                    SSTP
                    PPTP
                    L2TP
                ZeroTier
               Wireguard
                   Proxy
                 OpkgTap
                 OpkgTun
                 OpenVPN
              OpenConnect
                    IPIP
                    XFRM
                     IKE
                     Gre
                    EoIP
          TunnelSixInFour
                   Dummy
                    Clat
                    MapT
                 DsLite
          TunnelFourInSix
                 Chilli
```

History

Version	Description
2.00	The **interface** command has been introduced.
5.00	Example has been updated.

3.26.1 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.

3.26.2 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.

3.26.3 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.

3.26.4 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.

3.26.5 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.

3.26.6 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.

3.26.7 interface authentication identity

Description Specify user name for device authentication on the remote system. Equally often used on PPTP, PPPoE, L2TP and Proxy connections.

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	*String*	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.

3.26.8 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.

3.26.9 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": authnentication 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.

3.26.10 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.

3.26.11 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	*String*	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.

3.26.12 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.

3.26.13 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.

3.26.14 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	*String*	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.

3.26.15 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`	*`String`*	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.

3.26.16 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.

3.26.17 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.

3.26.18 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.

3.26.19 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.

3.26.20 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.
	`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.

3.26.21 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.

3.26.22 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.

3.26.23 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**

Arguments

Argument	Value	Description
coaport	*Integer*	The *CoA* 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.
```

History

Version	Description
2.10	The **interface chilli coaport** command has been introduced.

3.26.24 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**

Arguments

Argument	Value	Description
dhcpif	*Interface*	Full interface name or an alias.

Example

```
(config-if)> chilli dhcpif Bridge1
Chilli::Interface: "Chilli0": bound to Bridge1.
```

```
(config-if)> no chilli dhcpif
Chilli::Interface: "Chilli0": unbound.
```

History

Version	Description
2.10	The **interface chilli dhcpif** command has been introduced.

3.26.25 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	*IP address*	Address of primary DNS server.
dns2	*IP address*	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.

3.26.26 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	*Integer*	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.

3.26.27 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›*]

Arguments

Argument	Value	Description
mac	*MAC address*	MAC address for authentication.
username	*String*	Username for authentication.
password	*String*	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
```

History

Version	Description
4.00	The **interface chilli login** command has been introduced.

3.26.28 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**)

Arguments

Argument	Value	Description
mac	*MAC address*	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.
```

History

Version	Description
2.10	The **interface chilli logout** command has been introduced.

3.26.29 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.

3.26.30 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	*String*	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.

3.26.31 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	*IP address*	Specific IP address of the server.
wan	*Interface*	IP address from the specified WAN interface.
auto	*Keyword*	IP address from the current WAN interface.

Example

```
(config-if)> chilli nasip 203.0.113.187
Chilli::Interface: "Chilli0": NAS IP address set to ►
"203.0.113.187".
```

```
(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.

3.26.32 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	*MAC address*	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.

3.26.33 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

(config-if)> **chilli profile** ‹*profile*›

(config-if)> **no chilli profile**

Arguments

Argument	Value	Description
profile	*String*	*RADIUS* server profile name.

Example

```
(config-if)> chilli profile Wi-Fi_SYSTEM
Chilli::Interface: "Chilli0": assigned profile: Wi-Fi.
```

```
(config-if)> no chilli profile
Chilli::Interface: "Chilli0": profile cleared.
```

History

Version	Description
2.10	The **interface chilli profile** command has been introduced.

3.26.34 interface chilli radius

Description Add the *RADIUS* server addresses.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

(config-if)> **chilli radius** ‹*server1*› [‹*server2*›]

(config-if)> **no chilli radius**

Arguments

Argument	Value	Description
server1	*String*	Address of first *RADIUS* server.
server2	*String*	Address of second *RADIUS* server.

Example

```
(config-if)> chilli radius radius.example.net radius2.example.net
Chilli::Interface: "Chilli0": RADIUS servers set to ►
radius.example.net, radius2.example.net.
```

```
(config-if)> no chilli radius
Chilli::Interface: "Chilli0": RADIUS servers cleared.
```

History

Version	Description
2.10	The **interface chilli radius** command has been introduced.

3.26.35 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	*String*	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.

3.26.36 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	*String*	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.

3.26.37 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`	*String*	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.

3.26.38 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	*String*	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.

3.26.39 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

(config-if)> **chilli radiusnasid** ‹*radiusnasid*›

(config-if)> **no chilli radiusnasid**

Arguments

Argument	Value	Description
radiusnasid	*String*	NAS identifier.

Example

```
(config-if)> chilli radiusnasid example_12
Chilli::Interface: "Chilli0": radiusnasid set to "example_12".
```

```
(config-if)> no chilli radiusnasid
Chilli::Interface: "Chilli0": radiusnasid cleared.
```

History

Version	Description
2.10	The **interface chilli radiusnasid** command has been introduced.

3.26.40 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

(config-if)> **chilli radiussecret** *‹radiussecret›*

(config-if)> **no chilli radiussecret**

Arguments

Argument	Value	Description
radiussecret	*String*	A secret value.

Example

```
(config-if)> chilli radiussecret 12df34fd
Chilli::Interface: "Chilli0": radiussecret set to "12df34fd".
```

```
(config-if)>  no chilli radiussecret
Chilli::Interface: "Chilli0": radiussecret cleared.
```

History

Version	Description
2.10	The **interface chilli radiussecret** command has been introduced.

3.26.41 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	*String*	IP-addrress, URL or subnetwork.

Example

```
(config-if)> chilli uamallowed 203.0.113.0/24
Chilli::Interface: "Chilli0": "203.0.113.0/24" 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 203.0.113.0/24
Chilli::Interface: "Chilli0": "203.0.113.0/24" 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.

3.26.42 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

(config-if)> **chilli uamdomain** *‹uamdomain›*

(config-if)> **no chilli uamdomain** [*‹uamdomain›*]

Arguments

Argument	Value	Description
uamdomain	*String*	Domain name of remote host.

Example

```
(config-if)> chilli uamdomain example.net
Chilli::Interface: "Chilli0": "example.net" added to walled ►
garden.
```

```
(config-if)> no chilli uamdomain example.net
Chilli::Interface: "Chilli0": "example.net" removed from walled ►
garden.
```

```
(config-if)> no chilli uamdomain
Chilli::Interface: "Chilli0": walled garden cleared.
```

History

Version	Description
2.10	The **interface chilli uamdomain** command has been introduced.

3.26.43 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	*String*	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.

3.26.44 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`	*Integer*	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.

3.26.45 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	*String*	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.

3.26.46 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.

3.26.47 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.
	`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.

3.26.48 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	*Interface*	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.

3.26.49 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	*String*	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.

3.26.50 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.

3.26.51 interface description

Description

Assign arbitrary descrption 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`	*String*	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.

3.26.52 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.

3.26.53 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.

3.26.54 interface dyndns nobind

Description Disable binding of a request to the WAN-interface.

Command with **no** prefix enables the binding.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-if)> **dyndns nobind**

(config-if)> **no dyndns nobind**

Example

```
(config-if)> dyndns nobind
DynDns::Client: Disabled bind on interface GigabitEthernet1.
```

```
(config-if)> no dyndns nobind
DynDns::Client: Enabled bind on interface GigabitEthernet1.
```

History

Version	Description
4.02	The **interface dyndns nobind** command has been introduced.

3.26.55 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`	*String*	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.

3.26.56 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	*Keyword*	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.

3.26.57 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.

3.26.58 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.

3.26.59 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	*Integer*	The key number. Overall, up to 4 keys could be specified.
value	*String*	The key value as a hexadecimal number, consisting of 10 or 26 digits.

Argument	Value	Description
`default`	*Keyword*	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.

3.26.60 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.

3.26.61 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.

3.26.62 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`	*Integer*	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.

3.26.63 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.

3.26.64 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.

3.26.65 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.

3.26.66 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.

3.26.67 interface esim disable

Description Disable *eSIM* support on the modem interface.

Command with **no** prefix enables the feature on the modem interface.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

(config-if)> **esim disable**

(config-if)> **no esim disable**

Example

```
(config-if)> esim disable
Mobile::Interface: "UsbLte0": eSIM disabled.
```

```
(config-if)> no esim disable
Mobile::Interface: "UsbLte0": eSIM enabled.
```

History

Version	Description
5.00	The **interface esim disable** command has been introduced.

3.26.68 interface esim profile activate

Description Activate the *eSIM* profile.

Prefix no No

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

(config-if)> **esim profile activate** ‹*iccid*›

Arguments

Argument	Value	Description
iccid	*String*	The eSIM profile identifier.

Example

```
(config-if)> esim profile activate 8944476500007527505
Mobile::Lpa::Manager: Activate profile 8944476500007527505.
```

History

Version	Description
5.00	The **interface esim profile activate** command has been introduced.

3.26.69 interface esim profile deactivate

Description Deactivate the *eSIM* profile.

Prefix no No

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

(config-if)> **esim profile deactivate** ‹*iccid*›

Arguments

Argument	Value	Description
iccid	*String*	The eSIM profile identifier.

Example

```
(config-if)> esim profile deactivate 8944476500007527505
Mobile::Lpa::Manager: Deactivate profile 8944476500007527505.
```

History

Version	Description
5.00	The **interface esim profile deactivate** command has been introduced.

3.26.70 interface esim profile delete

Description Delete the specified *eSIM* profile.

Prefix no No

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

(config-if)> **esim profile delete** ‹*iccid*›

Arguments

Argument	Value	Description
iccid	*String*	The eSIM profile identifier.

Example

```
(config-if)> esim profile delete 89701014173641793753
Mobile::Lpa::Manager: Deleted 89701014173641793753 profile.
```

History

Version	Description
5.00	The **interface esim profile delete** command has been introduced.

3.26.71 interface esim profile download

Description Download an *eSIM* profile using the specified QR code data.

Prefix no No

Change settings No

Multiple input No

Interface type Usb

Synopsis

(config-if)> **esim profile download** ‹*qrcode*›

Arguments

Argument	Value	Description
qrcode	*String*	QR code data used to download the eSIM profile.

Example

```
(config-if)> esim profile download ►
LPA:1$rsp.truphone.com$QRF-SPEEDTEST
progress, name = Esim:ProfileDownload:UsbLte0: 0

        progress, name = Esim:ProfileDownload:UsbLte0: 1

        progress, name = Esim:ProfileDownload:UsbLte0: 12

        progress, name = Esim:ProfileDownload:UsbLte0: 17

        progress, name = Esim:ProfileDownload:UsbLte0: 22

        progress, name = Esim:ProfileDownload:UsbLte0: 28

        progress, name = Esim:ProfileDownload:UsbLte0: 33

        progress, name = Esim:ProfileDownload:UsbLte0: 38

        progress, name = Esim:ProfileDownload:UsbLte0: 43

        progress, name = Esim:ProfileDownload:UsbLte0: 49

        progress, name = Esim:ProfileDownload:UsbLte0: 54

        progress, name = Esim:ProfileDownload:UsbLte0: 59

        progress, name = Esim:ProfileDownload:UsbLte0: 65

        progress, name = Esim:ProfileDownload:UsbLte0: 70

        progress, name = Esim:ProfileDownload:UsbLte0: 75

        progress, name = Esim:ProfileDownload:UsbLte0: 86

        progress, name = Esim:ProfileDownload:UsbLte0: 91

        progress, name = Esim:ProfileDownload:UsbLte0: 96

        progress, name = Esim:ProfileDownload:UsbLte0: 100

Mobile::Lpa::Manager: "UsbLte0": profile downloaded.
```

History

Version	Description
5.00	The **interface esim profile download** command has been introduced.

3.26.72 interface esim profile list

Description Display the list of *eSIM* profiles.

Prefix no No

Change settings No

Multiple input No

Interface type Usb

Synopsis

(config-if)> **esim profile list**

Example

```
(config-if)> esim profile list
profile:
                iccid: 8944476500007527505
                 name: BetterRoaming
                  spn: BetterRoaming
               active: yes

         profile:
               iccid: 8944476500007527836
                name: BetterRoaming
                 spn: BetterRoaming
              active: no
```

History

Version	Description
5.00	The **interface esim profile list** command has been introduced.

3.26.73 interface esim profile rename

Description Rename the specified *eSIM* profile.

Prefix no No

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

(config-if)> **esim profile rename** ‹*iccid*›

Arguments

Argument	Value	Description
`iccid`	*String*	The eSIM profile identifier.

Example

```
(config-if)> esim profile rename 8944476500007527836 newname
Mobile::Lpa::Manager: Set alias "newname" for profile ►
8944476500007527836.
```

History

Version	Description
5.00	The **interface esim profile rename** command has been introduced.

3.26.74 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

(config-if)> **flowcontrol on**

(config-if)> **no flowcontrol** [**send**]

Arguments

Argument	Value	Description
send	*Keyword*	Flow control works asynchronously.

Example

```
(config-if)> flowcontrol on
Network::Interface::Ethernet: "GigabitEthernet0/0": flow control ►
enabled.
```

```
(config-if)> no flowcontrol send
Network::Interface::Ethernet: "GigabitEthernet0/0": flow control ►
send disabled.
```

History

Version	Description
2.08	The **interface flowcontrol** command has been introduced.

3.26.75 interface follow

Description

Copy settings from AP on WifiMaster0 (2.4 GHz) to the AP on WifiMaster with an index greater than zero (5 GHz or above).

The follower automatically copies all changes applied to the master access point.

If you change the follower settings, the link with the master access point is terminated.

Warning: The WifiMaster0 access points are always used as a source of settings. They never follow. They can only be followed.

Prefix no No

Change settings Yes

Multiple input No

Interface type AccessPoint

Synopsis

(config-if)> **follow** *‹access-point›*

Arguments

Argument	Value	Description
`access-point`	*Interface*	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.

3.26.76 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.

3.26.77 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	*String*	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.

3.26.78 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.

3.26.79 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.

3.26.80 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.

3.26.81 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	*String*	The value of *IAPP* 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.

3.26.82 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`	*Integer*	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.

3.26.83 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.

3.26.84 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.

3.26.85 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.

3.26.86 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*›

Arguments

Argument	Value	Description
interface	*Interface*	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.
```

History

Version	Description
2.00	The **interface include** command has been introduced.

3.26.87 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*›

Arguments

Argument	Value	Description
`interface`	*Interface*	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.

3.26.88 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 ACLs 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`	*String*	List of filtering rules as previously created using **access-list** command.

Argument	Value	Description
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.

3.26.89 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	*IP address*	The network interface address.
mask	*IP-mask*	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 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.

3.26.90 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**

(config-if)> **no ip address dhcp**

Example

```
(config-if)> ip address dhcp
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.
4.02	The optional argument `hostname` has been removed.

3.26.91 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 recv** *‹recv›*

(config-if)> **no ip adjust-ttl recv**

Arguments

Argument	Value	Description
recv	*Integer*	The value of TTL changing. Can take values in the range from 1 to 255 inclusively.

Example

```
(config-if)>  ip adjust-ttl recv 1
Network::Interface::Ip: "CdcEthernet0": incoming TTL set to 1.
```

```
(config-if)> no ip adjust-ttl recv
Network::Interface::Ip: "CdcEthernet0": incoming TTL settings ►
removed.
```

History

Version	Description
3.07	The **interface ip adjust-ttl recv** command has been introduced. Previous command name is **interface ip adjust-ttl**.

3.26.92 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	*Integer*	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.

3.26.93 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	*IP address*	Additional address of the network interface.
mask	*IP-mask*	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.

3.26.94 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.

3.26.95 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`	*`String`*	Vendor class name, enclosed in double quotes.

Example

```
(config-if)> ip dhcp client class-id "Explorer"
Dhcp::Client: ISP DHCP client vendor class is set to "Explorer".
```

```
(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.

3.26.96 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.

3.26.97 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	*Interface*	Name or alias of the interface whose static address will be displaced.
check-session	*Keyword*	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.

3.26.98 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.

3.26.99 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`	*`String`*	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".
```

History

Version	Description
2.05	The **interface ip dhcp client fallback** command has been introduced.

3.26.100 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**

Arguments

Argument	Value	Description
`hostname`	*`String`*	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).
```

History

Version	Description
2.00	The **interface ip dhcp client hostname** command has been introduced.

3.26.101 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.

3.26.102 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.

3.26.103 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.

3.26.104 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.

3.26.105 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.

3.26.106 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	*Integer*	Interface priority to configure the default route. Can take values in the range from 1 to 65534.
order	*Integer*	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	*Keyword*	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.

3.26.107 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** *‹mru›*

(config-if)> **no ip mru**

Arguments

Argument	Value	Description
`mru`	*Integer*	*MRU* 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.

3.26.108 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

(config-if)> **ip mtu** *‹mtu›*

(config-if)> **no ip mtu**

Arguments

Argument	Value	Description
mtu	*Integer*	*MTU* value. Can take values in the range from 64 to 65535 inclusively.

Example

```
(config-if)> ip mtu 1500
Network::Interface::Base: "GigabitEthernet1": static MTU is 1500.
```

```
(config-if)> no ip mtu
Network::Interface::Base: "GigabitEthernet1": static MTU reset ►
to default.
```

History

Version	Description
2.00	The **interface ip mtu** command has been introduced.

3.26.109 interface ip name-servers

Description Enable the use of *DNS* server addresses on the interface. By default, the function is enabled.

Command with **no** prefix denies using of *DNS* server addresses on the interface.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config-if)> **ip name-servers**

(config-if)> **no ip name-servers**

Example

```
(config-if)> ip name-servers
Dns::InterfaceSpecific: "GigabitEthernet1": accept IPv4 name ►
servers.
```

```
(config-if)> no ip name-servers
Dns::InterfaceSpecific: "GigabitEthernet1": ignore IPv4 name ►
servers.
```

History

Version	Description
4.00	The **interface ip name-servers** command has been introduced.

3.26.110 interface ip nat loopback

Description

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).

Command with **no** prefix disables NAT loopback.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

(config-if)> **ip nat loopback**

(config-if)> **no ip nat loopback**

Example

```
(config-if)> ip nat loopback
Network::StaticNat: NAT loopback is explicitly enabled on "Home".
```

```
(config-if)> no ip nat loopback
Network::StaticNat: NAT loopback is explicitly disabled on "Home".
```

History

Version	Description
2.11	The **ip nat loopback** command has been introduced.

3.26.111 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.

3.26.112 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**

Arguments

Argument	Value	Description
pmtu	*Keyword*	Set the upper limit of *MSS*, equal to the minimum *MTU* along the path to the remote peer.
mss	*Integer*	*MSS* 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.
```

History

Version	Description
2.00	The **interface ip tcp adjust-mss** command has been introduced.

3.26.113 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.

3.26.114 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.

3.26.115 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.

3.26.116 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.

3.26.117 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	*Keyword*	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.

3.26.118 interface ipsec aggressive

Description

Enable aggressive IKEv1 mode for compatibility with FritzBox L2TP/IPsec server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Secure

Synopsis

(config-if)> **ipsec aggressive**

(config-if)> **no ipsec aggressive**

Example

```
(config-if)> ipsec aggressive
Network::Interface::Secure: IKEv1 Aggressive Mode is enabled.
```

```
(config-if)> no ipsec aggressive
Network::Interface::Secure: IKEv1 Aggressive Mode is disabled.
```

History

Version	Description
4.02	The **interface ipsec aggressive** command has been introduced.

3.26.119 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.
	strong	The strongest level, *PFS* is mandatory, priority is given to AES256 and SHA1.
	weak-pfs	The same as weak, but for the second phase *PFS* group 1 and 2 is enabled.
	normal-pfs	The same as normal, but for the second phase *PFS* group 2 and 5 is enabled.
	normal-3des-pfs	The same as normal-3des, but for the second phase *PFS* 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 *AEAD* algorithms.
	strong-aead-pfs	The strongest level, *PFS* is mandatory, priority is given to AES256 and SHA1 with addition of *AEAD* 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.

3.26.120 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.

3.26.121 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.

3.26.122 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.

3.26.123 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.

3.26.124 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.

3.26.125 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

(config-if)> **ipsec preshared-key** *‹key›*

(config-if)> **no ipsec preshared-key**

Arguments

Argument	Value	Description
key	*String*	Secret PSK key value. Latin letters, numbers and equal signs are acceptable. The key length should be between 3 and 72 characters long.

Example

```
(config-if)> ipsec preshared-key gbp1gW3pBQK.g=
Network::Interface::Secure: "L2TP0": preshared key was set.
```

```
(config-if)> no ipsec preshared-key
Network::Interface::Secure: "L2TP0": preshared key was reset.
```

History

Version	Description
2.08	The **interface ipsec preshared-key** command has been introduced.

3.26.126 interface ipsec proposal lifetime

Description

Set lifetime of *IPSec* 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

(config-if)> **ipsec proposal lifetime** ‹*lifetime*›

(config-if)> **no ipsec proposal lifetime**

Arguments

Argument	Value	Description
`lifetime`	*Integer*	Lifetime of *IPSec* transformation in seconds. Can take values in the range from `60` to 2147483647.

Example

```
(config-if)> ipsec proposal lifetime 222222
Network::Interface::Secure: IPsec IKE proposal lifetime set to ►
222222 s.
```

```
(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.

3.26.127 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`	*String*	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.

3.26.128 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**

Arguments

Argument	Value	Description
`remote-id`	*String*	IP address or domain name of remote host.

Example

```
(config-if)> ipsec proposal remote-id my.example.com
Network::Interface::Secure: Set IKE remote ID to "my.example.com".

(config-if)> no ipsec proposal remote-id
Network::Interface::Secure: Reset IKE remote ID.
```

History

Version	Description
3.08	The **interface ipsec proposal remote-id** command has been introduced.

3.26.129 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**

Arguments

Argument	Value	Description
`lifetime`	*Integer*	Lifetime of *IPSec* 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.

3.26.130 interface ipv6 address

Description Confgure 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`	*IPv6 address*	The network interface address.
`block`	*IPv6 address*	The network interface address with mask.
`auto`	*Keyword*	Enable stateless autoconfiguration.

Example

```
(config-if)> ipv6 address 2001:db8:2:612:52ff:20ff:fe00:1e87
Network::Interface::Ip6: "GigabitEthernet1": added static address ►
2001:db8:2:612:52ff: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 2001:db8:2:612:52ff:20ff:fe00:1e87
Network::Interface::Ip6: "GigabitEthernet1": removed static ►
address 2001:db8:2:612:52ff: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.

3.26.131 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`	*Prefix*	Requested IPv6 prefix or only its length if specified as `::/length`.

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.

3.26.132 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`	*Suffix*	The static suffix.
`eui64`	*Keyword*	The identifier is based on the interface MAC address.
`random`	*Keyword*	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.

3.26.133 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

(config-if)> **ipv6 name-servers** (**auto**)

(config-if)> **no ipv6 name-servers** [**auto**]

Arguments

Argument	Value	Description
auto	*Keyword*	Enable name-server autoconfiguration.

Example

```
(config-if)> ipv6 name-servers auto
Name servers provided by the interface network are accepted.
```

History

Version	Description
2.00	The **interface ipv6 name-servers** command has been introduced.

3.26.134 interface ipv6 prefix

Description

Configure prefix delegation. When **auto** is set, prefix is requested via DHCPv6-PD.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-if)> **ipv6 prefix** (*‹prefix›* | **auto**)

(config-if)> **no ipv6 prefix** [*‹prefix›* | **auto**]

Arguments

Argument	Value	Description
auto	*Keyword*	Enable prefix delegation.
prefix	*Prefix*	Manual input of prefix.

Example

```
(config-if)> ipv6 prefix 2001:db8:43:ab12::/64
Static IPv6 prefix added.
```

History

Version	Description
2.00	The **interface ipv6 prefix** command has been introduced.

3.26.135 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.

3.26.136 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	*Keyword*	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.

3.26.137 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
interval	*Integer*	Interval between sending *LCP* echo, in seconds. If within the specified time interval there is no *LCP* echo request from the remote location, the same request will be sent there asking for response *LCP* reply.
count	*Integer*	The number of consecutive requests *LCP* echo sent, for which no response *LCP* reply was received. If count of *LCP* echo requests goes unanswered, the connection is terminated.

Argument	Value	Description
adaptive	*Keyword*	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.

3.26.138 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	*Keyword*	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.

3.26.139 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

(config-if)> **ldpc**

(config-if)> **no ldpc**

Example

```
(config-if)> ldpc
Network::Interface::Rtx::WifiMaster: "WifiMaster1": LDPC enabled.
```

```
(config-if)> no ldpc
Network::Interface::Rtx::WifiMaster: "WifiMaster1": LDPC disabled.
```

History

Version	Description
2.07	The **interface ldpc** command has been introduced.

3.26.140 interface lldp disable

Description

Disable *LLDP* agent on interface. By default, the feature is enabled.

Command with **no** prefix enables *LLDP* agent.

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.

3.26.141 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	*MAC address*	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.

3.26.142 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.

3.26.143 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.

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 aa:bb:cc:dd:ee:ff
Network::Interface::Mac: "GigabitEthernet1": MAC address is ►
aa:bb:cc:dd:ee:ff.

(config-if)> no mac address
Network::Interface::Mac: "GigabitEthernet1": MAC address reset ►
to d1:1c:53:00:3d:f5.

(config-if)> mac address aa:bb:cc:dd:ee:ff
Network::Interface::Mac: "WifiMaster0/WifiStation0": MAC address ►
is aa:bb:cc:dd:ee:ff.

(config-if)> no mac address
Network::Interface::Mac: "WifiMaster0/WifiStation0": MAC address ►
reset to d3:1c:53:00:3d:f4.
```

History

Version	Description
2.00	The **interface mac address** command has been introduced.
4.03	Added the ability to change the original MAC address for *WISP*.

3.26.144 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.

Argument	Value	Description
	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.

3.26.145 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.

3.26.146 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	*MAC address*	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.

3.26.147 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

(config-if)> **mac clone**

Example

```
(config-if)> mac clone
```

History

Version	Description
2.00	The **interface mac clone** command has been introduced.

3.26.148 interface openconnect accept-addresses

Description

Enable address accepting from the *OpenConnect* server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

OpenConnect

Synopsis

(config-if)> **openconnect accept-addresses**

(config-if)> **no openconnect accept-addresses**

Example

```
(config-if)> openconnect accept-addresses
OpenConnect::Interface: "OpenConnect0": enabled addresses accept.
```

```
(config-if)> no openconnect accept-addresses
OpenConnect::Interface: "OpenConnect0": disabled addresses accept.
```

History

Version	Description
4.02	The **interface openconnect accept-addresses** command has been introduced.

3.26.149 interface openconnect accept-routes

Description

Enable receiving routes from a remote side via *OpenConnect*.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

OpenConnect

Synopsis

(config-if)> **openconnect accept-routes**

(config-if)> **no openconnect accept-routes**

Example

```
(config-if)> openconnect accept-routes
OpenConnect::Interface: "OpenConnect0": enabled routes accept.
```

```
(config-if)> no openconnect accept-routes
OpenConnect::Interface: "OpenConnect0": disabled routes accept.
```

History

Version	Description
4.03	The **interface openconnect accept-routes** command has been introduced.

3.26.150 interface openconnect allow-basic-auth

Description

Configure HTTP Basic authentication[13] for the *OpenConnect* connection.

Command with **no** prefix disables HTTP Basic authentication.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

OpenConnect

Synopsis

(config-if)> **openconnect allow-basic-auth**

(config-if)> **no openconnect allow-basic-auth**

Example

```
(config-if)> openconnect allow-basic-auth
OpenConnect::Interface: "OpenConnect0": enabled HTTP Basic auth.
```

```
(config-if)> no openconnect allow-basic-auth
OpenConnect::Interface: "OpenConnect0": disabled HTTP Basic auth.
```

History

Version	Description
5.00	The **interface openconnect allow-basic-auth** command has been introduced.

3.26.151 interface openconnect authgroup

Description

Configure authgroup setting for the *OpenConnect*.

[13] https://www.infradead.org/openconnect/manual.html

Note: The command implements a connection to the Cisco ASA.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type OpenConnect

Synopsis

(config-if)> **openconnect authgroup** *‹authgroup›*

(config-if)> **no openconnect authgroup**

Arguments

Argument	Value	Description
authgroup	*String*	The group name.

Example

```
(config-if)> openconnect authgroup MYEXAMPLE
OpenConnect::Interface: "OpenConnect0": set auth group ►
"MYEXAMPLE".
```

```
(config-if)> no openconnect authgroup
OpenConnect::Interface: "OpenConnect0": removed auth group.
```

History

Version	Description
4.02	The **interface openconnect authgroup** command has been introduced.

3.26.152 interface openconnect dtls

Description Configure the DTLS mode for the *OpenConnect*. By default, the mode is enabled.

Note: OpenConnect prefers PPP-over-DTLS. It will fall over to PPP-over-TLS if PPP-over-DTLS fails, or if it is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type OpenConnect

Synopsis

(config-if)> **openconnect dtls**

(config-if)> **no openconnect dtls**

Example

```
(config-if)> openconnect dtls
OpenConnect::Interface: "OpenConnect0": enabled DTLS mode.
```

```
(config-if)> no openconnect dtls
OpenConnect::Interface: "OpenConnect0": disabled DTLS mode.
```

History

Version	Description
4.03	The **interface openconnect dtls** command has been introduced.

3.26.153 interface openconnect protocol

Description

Set the *OpenConnect* connection protocol.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

OpenConnect

Synopsis

(config-if)> **openconnect protocol** ‹*protocol*›

(config-if)> **no openconnect protocol**

Arguments

Argument	Value	Description
protocol	anyconnect	Use AnyConnect[14] protocol for connection.
	fortinet	Use Fortinet[15] protocol for connection.
	nc	Use Juniper[16] protocol for connection.

Example

```
(config-if)> openconnect protocol anyconnect
OpenConnect::Interface: "OpenConnect0": set protocol "anyconnect".
```

```
(config-if)> no openconnect protocol
OpenConnect::Interface: "OpenConnect0": removed protocol.
```

[14] https://www.infradead.org/openconnect/anyconnect.html
[15] https://www.infradead.org/openconnect/fortinet.html
[16] https://www.infradead.org/openconnect/juniper.html

History

Version	Description
4.03	The **interface openconnect protocol** command has been introduced.
4.03	Added support for the **fortinet** and **anyconnect** protocols.
5.00	Added support for the **nc** protocol.

3.26.154 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.

3.26.155 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	*Interface*	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.

3.26.156 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

(config-if)> **openvpn name-servers**

(config-if)> **no openvpn name-servers**

Example

```
(config-if)> openvpn name-servers
Network::Interface::OpenVpn: "OpenVPN0": automatic name servers ►
via tunnel are enabled.
```

```
(config-if)> no openvpn name-servers
Network::Interface::OpenVpn: "OpenVPN0": automatic name servers ►
via tunnel are disabled.
```

History

Version	Description
3.06	The **interface openvpn name-servers** command has been introduced.

3.26.157 interface peer

Description

Specify ID of the remote peer to which the *PPP* connection will be used. A more precise meaning of configurition 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.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

PPP

Synopsis

```
(config-if)> peer ‹peer›
```

```
(config-if)> no peer
```

Arguments

Argument	Value	Description
`peer`	*String*	Remote connection point ID or remote server address `host.example.net:port`. By default, port number is 443.

Example

```
(config-if)> peer 111
```

```
(config-if)> peer host.example.net:5555
```

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.

3.26.158 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.

3.26.159 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`	*String*	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.

3.26.160 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`	*Interface*	Full name or alias of the interface to be restarted when the *Ping Check* on the binded interface is triggered. If this argument is not specified, the interface binded with *Ping Check* 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.

3.26.161 interface pmf

Description

Enable *PMF* functionality.

Note: With *WPA2* or *WPA2*+*WPA3* encryption selected, the pmf command enables PMF Capable (MFPC) for the clients connecting to the AP.

If the client supports *PMF* functionality, then it will be able to connect with *PMF*, if not, then it will connect without *PMF* to the AP.

If WPA3 encryption is selected, the *PMF* function becomes mandatory for clients connecting to the AP.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

(config-if)> **pmf** [**force**]

(config-if)> **no pmf**

Arguments

Argument	Value	Description
`force`	*Keyword*	Enable the mandatory *PMF* function for *WPA2* encryption.

Example

```
(config-if)> pmf
Network::Interface::Rtx::WifiStation: "WifiMaster0/WifiStation0": ►
PMF enabled.
```

```
(config-if)> pmf force
Network::Interface::Mtk::WifiStation: "WifiMaster0/WifiStation0": ►
PMF forced.
```

```
(config-if)> no pmf
Network::Interface::Rtx::WifiStation: "WifiMaster0/WifiStation0": ►
PMF disabled.
```

History

Version	Description
2.09	The **interface pmf** command has been introduced.
4.01	The `force` keyword was added.

3.26.162 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*›

Arguments

Argument	Value	Description
pmksa-lifetime	*Integer*	Lifetime value, in minutes.

Example

```
(config-if)> interface WifiMaster1 pmksa-lifetime 43200
Network::Interface::Mtk::WifiMaster: "WifiMaster1": PMKSA cache ►
lifetime updated.
```

History

Version	Description
4.01	The **interface pmksa-lifetime** command has been introduced.

3.26.163 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*›

Arguments

Argument	Value	Description
power	*Integer*	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.
```

History

Version	Description
2.00	The **interface power** command has been introduced.

3.26.164 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	*String*	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.

3.26.165 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.

3.26.166 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.

3.26.167 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	*Interface*	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.

3.26.168 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.

3.26.169 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.

3.26.170 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	*String*	IP-address or domain name of proxy server.
port	*Integer*	The server port.

Example

```
(config-if)> proxy upstream 203.0.113.48 1080
Proxy::Interface: "Proxy0": set proxy upstream to ►
203.0.113.48:1080.
```

```
(config-if)> no proxy upstream
Proxy::Interface: "Proxy0": cleared proxy upstream.
```

History

Version	Description
3.09	The **interface proxy upstream** command has been introduced.

3.26.171 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	*Integer*	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.

3.26.172 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**

Arguments

Argument	Value	Description
interval	*Integer*	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.
```

History

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.

3.26.173 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`	*`String`*	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.

3.26.174 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	*Hex*	Memory cell location. Can take values in the range from 1E0 to 1FE.
value	*Hex*	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.

3.26.175 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 `misc` was added.

3.26.176 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.

3.26.177 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`	*Integer*	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.

3.26.178 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	*Schedule*	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.

3.26.179 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.

3.26.180 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	*Keyword*	Connection speed in Mbit/s.
100		
1000		
auto	*Keyword*	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.

3.26.181 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.

3.26.182 interface ssdp disable

Description

Disable network host discovery via *SSDP* on the specified interface. By default, the feature is enabled.

Command with **no** prefix enables *SSDP* on the interface.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Bridge

Synopsis

(config-if)> **ssdp disable**

(config-if)> **no ssdp disable**

Example

```
(config-if)> ssdp disable
Discovery::Ssdp::Manager: Disabled on interface "Bridge0".
```

```
(config-if)> no ssdp disable
Discovery::Ssdp::Manager: Enabled on interface "Bridge0".
```

History

Version	Description
5.00	The **interface ssdp disable** command has been introduced.

3.26.183 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	*String*	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.

3.26.184 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.

(config-if)> standby enable
Network::Interface::Standby: "GigabitEthernet1": enabled.

(config-if)> no standby enable
Network::Interface::Standby: "GigabitEthernet1": disabled.
```

History

Version	Description
4.00	The **interface standby enable** command has been introduced.

3.26.185 interface standby timeout

Description

Set the on-demand connection timeout for a `standby` WAN interface. Specifies the time during which connection attempts are performed. When the timeout expires, the interface is disabled. By default, `600` value is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-if)> **standby timeout** *‹seconds›*

(config-if)> **no standby timeout**

Arguments

Argument	Value	Description
`seconds`	*Integer*	Standby timeout in seconds. Can take values in the range from `10` to `3600` inclusively.

Example

```
(config-if)> standby timeout 600
Network::Interface::Standby: "GigabitEthernet1": set timeout to ►
"600" sec.

(config-if)> no standby timeout
Network::Interface::Standby: "GigabitEthernet1": reset timeout.
```

History

Version	Description
4.03	The **interface standby timeout** command has been introduced.

3.26.186 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.

3.26.187 interface suspend enable

Description Enable the timeout mechanism for switching back to the primary SIM card on a dual-SIM modem.

Command with **no** prefix disables the SIM switching timeout mechanism.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Usb

Synopsis

(config-if)> **suspend enable**

(config-if)> **no suspend enable**

Example

```
(config-if)> suspend enable
Network::Interface::Suspend: "UsbLte0": enabled.
```

```
(config-if)> no suspend enable
Network::Interface::Suspend: "UsbLte0": disabled.
```

History

Version	Description
5.00	The **interface suspend enable** command has been introduced.

3.26.188 interface suspend schedule

Description

Assign a schedule to the SIM switching timeout mechanism.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Usb

Synopsis

(config-if)> **suspend schedule** *‹schedule›*

(config-if)> **no suspend schedule**

Arguments

Argument	Value	Description
schedule	*Schedule*	The name of the schedule that was created with **schedule** group of commands.

Example

```
(config-if)> suspend schedule schedule0
Network::Interface::Suspend: "UsbLte0": set schedule "schedule0".
```

```
(config-if)> no suspend schedule
Network::Interface::Suspend: Schedule disabled.
```

History

Version	Description
5.00	The **interface suspend schedule** command has been introduced.

3.26.189 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	*Integer*	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.

3.26.190 interface switchport friend

Description Configure undirectional *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**

Arguments

Argument	Value	Description
`vid`	*Integer*	Friend *VLAN* 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.
```

History

Version	Description
2.06	The **interface switchport friend** command has been introduced.

3.26.191 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**

Arguments

Argument	Value	Description
`mode`	`access`	Enable the access mode to a *VLAN*, that is the mode when only the untagged frames pass through the port. The incoming frames get tagged with the PVID marker, which is set with **switchport access** command. The port is an output one only for *VLAN* with PVID ID. Once a frame is transferred to the port, the *VLAN* marker gets removed.
	`trunk`	Enable the *VLAN* 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 *VLAN* networks that include the port is set with **switchport trunk** command.
`q-in-q`	*Keyword*	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.

3.26.192 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`	*Integer*	*VLAN* 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.

3.26.193 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`	*Integer*	Value of data download rate in Kbps. Limit sould be in the range from 64 Kbps to 1 Gbps.
`upstream-rate`	*Integer*	Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps.
`schedule`	*Schedule*	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.

3.26.194 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	*String*	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.

3.26.195 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	*Integer*	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.

3.26.196 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`	*Integer*	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`	*Integer*	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.

3.26.197 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`	*Keyword*	Set the current working WAN interface.
`interface`	*Interface*	Full interface name or an alias.
`address`	*IP address*	Local IP-adress 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.

3.26.198 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.

3.26.199 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`	*Integer*	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.

3.26.200 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.

3.26.201 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.

3.26.202 interface up

Description Enable the network interface and persist the state “up” to the settings.

Command with **no** prefix disables 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.

3.26.203 interface vlan qos egress map

Description Configure *NTCE* priority mapping to IEEE P802.1p[17] PCP for outgoing packets. By default, value `0` is used.

Command with **no** prefix resets the IEEE P802.1p[18] PCP value to default.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Ethernet

[17] https://en.wikipedia.org/wiki/IEEE_P802.1p
[18] https://en.wikipedia.org/wiki/IEEE_P802.1p

Synopsis

(config-if)> **vlan qos egress map** ‹*priority*› ‹*pcp*›

(config-if)> **no vlan qos egress map** [‹*priority*›]

Arguments

Argument	Value	Description
priority	*Integer*	*NTCE* priority number. Can take values in the range from 0 to 7 inclusively. If the value is 0, all outgoing packets will receive this PCP.
pcp	*Integer*	The new value of the IEEE P802.1p[19] priority code point.

Example

```
(config-if)> vlan qos egress map 0 2
Network::Interface::Vlan: "GigabitEthernet0/Vlan1": enabled ►
mapping priority 0 to PCP 2.
```

```
(config-if)> no vlan qos egress map 0
Network::Interface::Vlan: "GigabitEthernet0/Vlan1": reset PCP ►
mapping for priority 0.
```

History

Version	Description
4.02	The **interface vlan qos egress map** command has been introduced.

3.26.204 interface vrrp group

Description

Create *VRRP* group for the interface.

Command with **no** prefix removes the group. If you use no argument, the entire list of *VRRP* groups will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Ethernet, Bridge

Synopsis

(config-if)> **vrrp group** ‹*group*›

(config-if)> **no vrrp group** [‹*group*›]

Arguments

Argument	Value	Description
group	*Integer*	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.

[19] https://en.wikipedia.org/wiki/IEEE_P802.1p

Example

```
(config-if)> vrrp group 1
Vrrp::Manager: "Bridge0": created group 1.
```

```
(config-if)> no vrrp group 1
Vrrp::Manager: "Bridge0": removed group 1.
```

```
(config-if)> no vrrp group
Vrrp::Manager: "Bridge0": removed all groups.
```

History

Version	Description
5.00	The **interface vrrp group** command has been introduced.

3.26.205 interface vrrp group advertise

Description

Set the advertisement interval for a *VRRP* group.

Command with **no** prefix deletes the advertisement interval.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

(config-if)> **vrrp group** *‹group›* **advertise** *‹advertise›*

(config-if)> **no vrrp group** *‹group›* **advertise**

Arguments

Argument	Value	Description
group	*Integer*	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.
advertise	*Integer*	Advertisement interval in seconds. Can take values in the range from 1 to 255.

Example

```
(config-if)> vrrp group 1 advertise 2
Vrrp::Manager: "GigabitEthernet1": set advertise interval to "2" ►
s to group "1".
```

```
(config-if)> no vrrp group 1 advertise
Vrrp::Manager: "GigabitEthernet1": cleared advertise interval ►
for group "1".
```

History

Version	Description
5.00	The **interface vrrp group advertise** command has been introduced.

3.26.206 interface vrrp group ip

Description Set the virtual IP address for the specified *VRRP* group.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet, Bridge

Synopsis

(config-if)> **vrrp group** ‹*group*› **ip** ‹*ip*›

(config-if)> **no vrrp group** ‹*group*› **ip**

Arguments

Argument	Value	Description
group	*Integer*	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.
ip	*IP-address*	The virtual IP address for the specified VRRP group. The specified IP address must belong to the same subnet as the physical IP address of the interface on which VRRP is being configured.

Example

```
(config-if)> vrrp group 1 ip 192.168.2.10
Vrrp::Manager: "Bridge0": set virtual IP address "192.168.2.100" ►
to group "1".
```

```
(config-if)> no vrrp group 1 ip
Vrrp::Manager: "Bridge0": cleared virtual IP address for group ►
"1".
```

History

Version	Description
5.00	The **interface vrrp group ip** command has been introduced.

3.26.207 interface vrrp group priority

Description Set the priority for a *VRRP* group. Highest priority determines the Master router.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet, Bridge

Synopsis

(config-if)> **vrrp group** *‹group›* **priority** *‹priority›*

(config-if)> **no vrrp group** *‹group›* **priority**

Arguments

Argument	Value	Description
`group`	*Integer*	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.
`priority`	*Integer*	Group priority. Can take values in the range from `0` to 255.

Example

```
(config-if)> vrrp group 1 priority 110
Vrrp::Manager: "Bridge0": set priority "110" to group "1".
```

```
(config-if)> no vrrp group 1 priority
Vrrp::Manager: "Bridge0": cleared priority for group "1".
```

History

Version	Description
5.00	The **interface vrrp group priority** command has been introduced.

3.26.208 interface vrrp version

Description Set *VRRP* protocol version. By default, `default` value is set.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet, Bridge

Synopsis

(config-if)> **vrrp version** (**default** | **v2** | **v3** | **v3-compat**)

(config-if)> **no vrrp version**

Arguments

Argument	Value	Description
`default`	*Keyword*	Version 2 for IPv4 and version 3 for IPv6.

Argument	Value	Description
v2	*Keyword*	Strict compliance to VRRP version 2: • zero Virtual IPs are not allowed; • IPv6 addresses are not allowed; • the Master state can only be set if the priority is 255.
v3	*Keyword*	VRRP version 3 for IPv4 and IPv6 both.
v3-compat	*Keyword*	VRRP version 3: IPv6 compatibility mode with Cisco routers.

Example

```
(config-if)> vrrp version v3
Vrrp::Manager: "Bridge0": set version to "v3".
```

```
(config-if)> no vrrp version
Vrrp::Manager: "Bridge0": set version to "default".
```

History

Version	Description
5.00	The **interface vrrp version** command has been introduced.

3.26.209 interface wireguard asc

Description

Configure the Advanced Security Configuration setting for *WireGuard*.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Wireguard

Synopsis

(config-if)> **wireguard asc** *‹jc› ‹jmin› ‹jmax› ‹s1› ‹s2› ‹h1› ‹h2› ‹h3› ‹h4›* [*‹s3› ‹s4› ‹i1› ‹i2› ‹i3› ‹i4› ‹i5›*]

(config-if)> **no wireguard asc**

Arguments

Argument	Value	Description
jc	*String*	The number of packets with random data that are sent before the start of the session.

Argument	Value	Description
jmin	*String*	The minimum packet size for Junk packet. That is, all randomly generated packets will have a size no smaller than Jmin.
jmax	*String*	The maximum size for Junk packets.
s1	*String*	The size of random data that will be added to the init packet.
s2	*String*	The size of random data that will be added to the response packet.
h1	*String*	The header of the first byte of the handshake.
h2	*String*	The header of the first byte of the handshake response.
h3	*String*	UnderLoad packet header.
h4	*String*	The header of the packet of the data packet. The interval of keepalive packet sending in seconds.
h4	*String*	The header of the packet of the data packet. The interval of keepalive packet sending in seconds.
s3	*String*	The size of random data added to the Cookie packet.
s4	*String*	The size of random data added to the transport packet.
i1	*String*	The parameters of the first custom signature packet.
i2	*String*	The parameters of the second custom signature packet.
i3	*String*	The parameters of the third custom signature packet.
i4	*String*	The parameters of the fourth custom signature packet.
i5	*String*	The parameters of the fifth custom signature packet.

Example

```
(config-if)> wireguard asc 120 22 320 0 0 1 2 3 4
Wireguard::Interface: "Wireguard0": set ASC parameters.
```

```
(config-if)> wireguard asc 12 93 631 55 443 3815022723 2676095188 ►
1013151964 2222066632
Wireguard::Interface: "Wireguard0": set ASC parameters.
```

```
(config-if)> wireguard asc 4 11 40 61 121
 408497356-1600544948 2108567814-2122165249 2174439465-2126166684 ►
2135261384-2139127173 21 21
"<r 2><b ►
0x8580000100010000000000669636c6f756403636f6d0000010001c00c000100010000105a00044d583737>
```

```
" "" "" "" ""
Wireguard::Interface: "Wireguard0": set ASC parameters.
```

```
(config-if)> no wireguard asc
Wireguard::Interface: "Wireguard0": reset ASC parameters.
```

History

Version	Description
4.02	The **interface wireguard asc** command has been introduced.
5.01	Added support for additional ASC parameters: **s3**, **s4**, **i1**, **i2**, **i3**, **i4**, and **i5**.

3.26.210 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`	*Integer*	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.

3.26.211 interface wireguard obfs-key

Description Configure the obfuscation key, compatible with DD-WRT firmware.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Wireguard

Synopsis

(config-if)> **wireguard obfs-key** *‹obfs-key›*

(config-if)> **no wireguard obfs-key**

Arguments

Argument	Value	Description
obfs-key	*String*	Value of the key. Latin letters, numbers, dots, hyphens and underscores are acceptable. The key length should be between 1 and 32 characters long.

Example

```
(config-if)> wireguard obfs-key 5(-3*3RA{2&kay)_BbQs5a-J8Dq)%b*G
Wireguard::Interface: "Wireguard1": set obfs key for peer ►
"bmXOC+23451xEMF9dyiK2H5/1SUtzH0JuVo51h2wPfgyo=".
```

```
(config-if)> no wireguard obfs-key
Wireguard::Interface: "Wireguard3": reset obfs key.
```

History

Version	Description
5.00	The **interface wireguard obfs-key** command has been introduced.

3.26.212 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	*String*	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 ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmmg0=".
```

History

Version	Description
3.03	The **interface wireguard peer** command has been introduced.

3.26.212.1 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 *mask* 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.

3.26.212.2 interface wireguard peer client-id send

Description

Configure the client ID for sending in message headers for *WireGuard*.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Wireguard

Synopsis

(config-wg-peer)> **client-id send** ‹*client-id*›

(config-wg-peer)> **no client-id send**

Arguments

Argument	Value	Description
client-id	*String*	Decimal number obtained by simple hexadecimal translation, for example: from

Argument	Value	Description
		0x1620a6 you get simply 1450150. Client ID must be in the range from 1 to 16777215.

Example

```
(config-wg-peer)> client-id send 1450150
Wireguard::Interface: "Wireguard3": set peer ►
"4G0SzB1231234413PevDG4dy0Y/TCXG8fnKf2OLdjs=" send client ID to ►
"1450150".
```

```
(config-wg-peer)> no client-id send
Wireguard::Interface: "Wireguard3": reset send client ID for ►
peer "4G0SzB1231234413PevDG4dy0Y/TCXG8fnKf2OLdjs=".
```

History

Version	Description
4.02	The **interface wireguard peer client-id send** command has been introduced.

3.26.212.3 interface wireguard peer connect

Description

Set interface for WireGuard peer connection. By default, connection is set via any interface.

If you use no argument, the setting resets to default.

Command with **no** prefix disables WireGuard peer connection.

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	*Interface*	Full interface name or an alias.

Example

```
(config-wg-peer)> connect
Wireguard::Interface: "Wireguard0": set peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byPOzK/MAI67VmXs=" connection via ►
any interface.
```

```
(config-wg-peer)> connect via ISP
Wireguard::Interface: "Wireguard0": set peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byPOzK/MAI67VmXs=" connect via "ISP"
```

```
(config-wg-peer)> no connect
Wireguard::Interface: "Wireguard0": disabled peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byPOzK/MAI67VmXs=".
```

History

Version	Description
4.01	The **interface wireguard peer connect** command has been introduced.

3.26.212.4 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	*IP address*	IP address or domain name of the server.
port	*Integer*	The *UDP* server port.

Example

```
(config-wg-peer)> endpoint 10.0.1.10:11635
Wireguard::Interface: "Wireguard4": set peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=" endpoint to ►
"10.0.1.10:11635".
```

```
(config-wg-peer)> no endpoint
Wireguard::Interface: "Wireguard4": reset endpoint for peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

History

Version	Description
3.03	The **interface wireguard peer endpoint** command has been introduced.

3.26.212.5 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`	*Integer*	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.

3.26.212.6 interface wireguard peer obfs-key

Description Configure the obfuscation key for the selected *WireGuard* peer.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Wireguard

Synopsis

(config-wg-peer)> **obfs-key** *‹obfs-key›*

(config-wg-peer)> **no obfs-key**

Arguments

Argument	Value	Description
obfs-key	*String*	Value of the key. Latin letters, numbers, dots, hyphens and underscores are acceptable. The key length should be between 1 and 32 characters long.

Example

```
(config-wg-peer)> obfs-key 5(-33RA{2&kay)_BbQs5a-J8Dq)%bG
Wireguard::Interface: "Wireguard3": set obfs key for peer ►
"bmXOC+F1FxEMF9dyiK2H5/1SUtzH0JuVo51h2wPfgyo=".
```

```
(config-wg-peer)> no obfs-key
Wireguard::Interface: "Wireguard3": reset obfs key for peer ►
"bmXOC+F1FxEMF9dyiK2H5/1SUtzH0JuVo51h2wPfgyo=".
```

History

Version	Description
5.00	The **interface wireguard peer obfs-key** command has been introduced.

3.26.212.7 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** *‹preshared-key›*

(config-wg-peer)> **no preshared-key**

Arguments

Argument	Value	Description
preshared-key	*String*	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=".
```

History

Version	Description
3.03	The **interface wireguard peer preshared-key** command has been introduced.

3.26.213 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*›]

Arguments

Argument	Value	Description
`private-key`	*String*	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.
```

History

Version	Description
3.03	The **interface wireguard private-key** command has been introduced.

3.26.214 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.
```

History

Version	Description
2.00	The **interface wmm** command has been introduced.

3.26.215 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	*String*	The value of *RADIUS* shared secret. Maximum key length is 64 characters.

Example

```
(config-if)> wpa-eap radius secret ►
(+>R#G`}-JNxru'i8i|lK}wBN9E^XOXa{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.

3.26.216 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	*IP address*	*RADIUS* server IP address.
port	*Integer*	*RADIUS* 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.

3.26.217 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.

3.26.218 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.

3.26.219 interface wps button

Description Start WPS process using a software button. Process takes 2 minutes or until the first connection occured.

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 Explorer.

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.

3.26.220 interface wps peer

Description Start WPS process using remote peer's PIN. Process takes 2 minutes or until the first connection occured. 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	*String*	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.

3.26.221 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 Explorer.

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.

3.26.222 interface wsd disable

Description Disable network host discovery via *WS-Discovery* on the specified interface. By default, the feature is enabled.

Command with **no** prefix enables *WS-Discovery* on the interface.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Bridge

Synopsis

(config-if)> **wsd disable**

(config-if)> **no wsd disable**

Example

```
(config-if)> wsd disable
Discovery::Wsd::Manager: Disabled on interface "Bridge0".
```

```
(config-if)> no wsd disable
Discovery::Wsd::Manager: Enabled on interface "Bridge0".
```

History

Version	Description
5.00	The **interface wsd disable** command has been introduced.

3.26.223 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.

3.26.224 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.
```

History

Version	Description
4.01	The **interface zerotier accept-routes** command has been introduced.

3.26.225 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**

Arguments

Argument	Value	Description
via	*Interface*	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.
```

History

Version	Description
4.01	The **interface zerotier connect** command has been introduced.

3.26.226 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.

3.27 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 entrys 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	*IP address*	IP address in four-part dotted decimal format corresponding to the local data-link address.
mac	*MAC address*	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.

3.28 ip conntrack lockout disable

Description Disable conntrack table protection. By default, the protection is enabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config)> **ip conntrack lockout disable**

(config)> **no ip conntrack lockout disable**

Example

```
(config)> ip conntrack lockout disable
Conntrack::Lockout: Disabled.
```

```
(config)> no ip conntrack lockout disable
Conntrack::Lockout: Enabled.
```

History

Version	Description
4.03	The **ip conntrack lockout disable** command has been introduced.

3.29 ip conntrack lockout duration

Description Set conntrack lockout duration. By default, the value `600` is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config)> **ip conntrack lockout duration** *‹duration›*

(config)> **no ip conntrack lockout duration**

Arguments

Argument	Value	Description
`duration`	*`Integer`*	Lockout duration value in seconds. Can take values in the range from `60` to `3600`.

Example

```
(config)> ip conntrack lockout duration 3600
Conntrack::Lockout: Set duration to 3600 s.
```

```
(config)> no ip conntrack lockout duration
Conntrack::Lockout: Reset duration.
```

History

Version	Description
4.03	The **ip conntrack lockout duration** command has been introduced.

3.30 ip conntrack lockout threshold public

Description Set maximum number of connections from public interfaces. By default, the value `80` percent is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config)> **ip conntrack lockout threshold public** *‹public›*

(config)> **no ip conntrack lockout threshold public**

Arguments

Argument	Value	Description
public	*Integer*	Number of connections as a percentage of the conntrack table size. Can take values in the range from 50 to 99 percent inclusively.

Example

```
(config)> ip conntrack lockout threshold public 99
Conntrack::Lockout: Set threshold to "99".
```

```
(config)> no ip conntrack lockout threshold public
Conntrack::Lockout: Reset threshold.
```

History

Version	Description
4.03	The **ip conntrack lockout threshold public** command has been introduced.

3.31 ip conntrack max-entries

Description Set NAT table size for conntrack (used for connection tracking).

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config)> **ip conntrack max-entries** *‹max-entries›*

Arguments

Argument	Value	Description
max-entries	*Integer*	The maximum number of entries in the table.

Example

```
(config)> ip conntrack max-entries 32768
Core::FileSystem::Proc: System setting saved.
```

History

Version	Description
4.03	The **ip conntrack max-entries** command has been introduced.

3.32 ip conntrack sweep threshold

Description

Set threshold to start cleaning up waiting sessions. By default, the value `70` percent is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

(config)> **ip conntrack sweep threshold** *‹threshold›*

(config)> **no ip conntrack sweep threshold duration**

Arguments

Argument	Value	Description
`threshold`	*Integer*	Threshold for cleaning pending sessions as a percentage of the `conntrack` table size. Can take values in the range from `50` to `99` percent inclusively.

Example

```
(config)> ip conntrack sweep threshold 99
Conntrack::Lockout: Set sweep threshold to "99".
```

```
(config)> no ip conntrack sweep threshold
Conntrack::Lockout: Reset sweep threshold.
```

History

Version	Description
4.03	The **ip conntrack sweep threshold** command has been introduced.

3.33 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`	*`String`*	The vendor-class name.

Example

```
(config)> ip dhcp class STB-One
Dhcp::Server: Vendor class "STB-One" has been created.
```

History

Version	Description
2.00	The **ip dhcp class** command has been introduced.

3.33.1 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`	*`Integer`*	Option number. Now the only `60` value is used.
`data`	*`String`*	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.

3.34 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	*String*	Arbitrary host name, used to identify a MAC-IP pair in the settings.
mac	*MAC address*	MAC address of the host for static linking of IP address. If not specified, the value is taken from the previous configuration.
ip	*IP address*	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.

3.35 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	*String*	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.

3.35.1 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`	*Interface*	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.

3.35.2 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`	*Filename*	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.

3.35.3 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`	*String*	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.

3.35.3.1 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`	*`String`*	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.

3.35.4 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
```

History

Version	Description
2.01	The **ip dhcp pool debug** command has been introduced.

3.35.5 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**

Arguments

Argument	Value	Description
address	*IP address*	Default gateway address.

Example

```
(config-dhcp-pool)> default-router 192.168.1.88
pool "test_pool" router address has been saved.
```

History

Version	Description
2.00	The **ip dhcp pool default-router** command has been introduced.

3.35.6 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	*IP address*	Address of primary DNS server.
address2	*IP address*	Address of secondary DNS server.
disable	*Keyword*	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.

3.35.7 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`	*`String`*	Local domain name.

Example

```
(config-dhcp-pool)> domain example.net
Dhcp::Pool: Domain option has been saved.
```

History

Version	Description
2.05	The **ip dhcp pool domain** command has been introduced.

3.35.8 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.
```

History

Version	Description
2.03	The **ip dhcp pool enable** command has been introduced.

3.35.9 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	*Integer*	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.

3.35.10 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	*IP address*	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.

3.35.11 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.

Argument	Value	Description
	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	*String*	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 198.51.100.46,203.0.113.46
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.

3.35.12 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	*IP address*	Pool's start address.
end	*IP address*	Pool's end address.
size	*Integer*	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.

3.35.13 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.

3.35.14 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.

3.36 ip dhcp relay enable

Description Enable DHCP relay on an interface. DHCP relay takes priority over the router's DHCP server.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

(config-if)> **ip dhcp relay enable**

(config-if)> **no ip dhcp relay enable**

Example

```
(config-if)> ip dhcp relay enable
Dhcp::Relay: Service enabled on ISP.
```

```
(config-if)> no ip dhcp relay enable
Dhcp::Relay: Service disabled on ISP.
```

History

Version	Description
4.03	The **ip dhcp relay enable** command has been introduced.

3.37 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	*Interface*	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.

3.38 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*]

Arguments

Argument	Value	Description
address	*IP address*	IP address of the *DHCP server*.

Example

```
(config)> ip dhcp relay server 192.168.1.11
using DHCP server 192.168.1.11.
```

History

Version	Description
2.00	The **ip dhcp relay server** command has been introduced.

3.39 ip dhcp relay upstream interface

Description

Bind DHCP upstream to a specific interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

(config-if)> **ip dhcp relay upstream interface** ‹*interface*›

(config-if)> **no ip dhcp relay upstream 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

```
(config-if)> ip dhcp relay upstream interface Home
Dhcp::Relay: Using WAN interface Home.
```

```
(config-if)> no ip dhcp relay upstream interface
Dhcp::Relay: WAN interface setting cleared.
```

History

Version	Description
4.03	The **ip dhcp relay upstream interface** command has been introduced.

3.40 ip dhcp relay upstream server

Description

Specify an upstream IP address of the *DHCP server*, to which the relay will forward client requests.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

(config-if)> **ip dhcp relay upstream server** ‹*server*›

(config-if)> **no ip dhcp relay upstream server**

Arguments

Argument	Value	Description
server	*IP address*	IP address of the *DHCP server*.

Example

```
(config-if)> ip dhcp relay upstream server 192.168.17.1
Dhcp::Relay: Using DHCP server 192.168.17.1.
```

```
(config-if)> no ip dhcp relay upstream server
Dhcp::Relay: Server address setting cleared.
```

History

Version	Description
4.03	The **ip dhcp relay upstream server** command has been introduced.

3.41 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*]

Arguments

Argument	Value	Description
`interface`	*Interface*	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.
```

History

Version	Description
2.00	The **ip dhcp relay wan** command has been introduced.

3.42 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.

3.43 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`	*Integer*	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.

3.44 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`	*Integer*	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.

3.45 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.

3.46 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.

3.47 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	*String*	A domain name of a host.
address	*IP address*	An IP address of a host.

Example

```
(config)> ip host example.local 192.168.1.22
Dns::Manager: Added static record for "example.local", address ►
192.168.1.22.
```

```
(config)> no ip host example.local 192.168.1.22
Dns::Manager: Record "example.local", address 192.168.1.22 ►
deleted.
```

History

Version	Description
2.00	The **ip host** command has been introduced.

3.48 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.

3.48.1 ip hotspot auto-register disable

Description Forcibly disable automatic host registration in the Home segment. By default, the auto-registration is enabled.

Command with **no** prefix enables the auto-registration.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config-hotspot)> **auto-register disable**

(config-hotspot)> **no auto-register disable**

Example

```
(config-hotspot)> auto-register disable
Hotspot::AutoRegister: Disabled host auto-registration.
```

```
(config-hotspot)> no auto-register disable
Hotspot::AutoRegister: Enabled host auto-registration.
```

History

Version	Description
4.02	The **ip hotspot auto-register disable** command has been introduced.

3.48.2 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`	*`Policy`*	Name of IP Policy profile.

Example

```
(config-hotspot)> default-policy permit
FHotspot::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.

3.48.3 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.

3.48.4 ip hotspot host conform

Description

Assign a segment-default policy for the registered hosts. Registration of a host is performed in advance by the **known host** command. By default, the setting is enabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

(config-hotspot)> **host** *‹mac›* **conform**

(config-hotspot)> **no host** *‹mac›* **conform**

Arguments

Argument	Value	Description
`mac`	*`MAC address`*	MAC address of host.

Example

```
(config-hotspot)> host 04:14:24:54:bc:52 conform
Hotspot::Manager: Conform applied to host "04:14:24:54:bc:52".
```

```
(config-hotspot)> no host 04:14:24:54:bc:52 conform
Hotspot::Manager: Conform removed from host "04:14:24:54:bc:52".
```

History

Version	Description
4.02	The **ip hotspot host conform** command has been introduced.

3.48.5 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.

3.48.6 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`	*Interface*	Ethernet interface full name or an alias.
`access`	`permit`	Permit access to the internet.
	`deny`	Deny access to the internet.
`policy`	*Policy*	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.

3.48.7 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	*Interface*	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.

3.48.8 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.

3.49 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.

3.50 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.

3.51 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.

3.52 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.

3.53 ip http port

Description Assign HTTP port for Web interface of Explorer. 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`	*Integer*	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.

3.54 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	*String*	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.

3.54.1 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.

3.54.2 ip http proxy dns-override

Description

Enable local DNS overrides for fourth level domains KeenDNS. By default, the setting is enabled.

Note: For the fourth level domain KeenDNS, a static DNS A-record with the address 198.51.100.11 (this is the IP we purchased

for the name my.keenetic.net) is added for access in the router's local network.

After disabling this feature, the static DNS A-record with the address 198.51.100.11 is removed from the router's system for the fourth level domain KeenDNS.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config-http-proxy)> **dns-override**

(config-http-proxy)> **no dns-override**

Example

```
(config-http-proxy)> dns-override
Http::Proxy: "test": enabled DNS override.
```

```
(config-http-proxy)> no dns-override
Http::Proxy: "test": disabled DNS override.
```

History

Version	Description
4.03	The **ip http proxy dns-override** command has been introduced.

3.54.3 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	*String*	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.

3.54.4 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.

3.54.5 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	*String*	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.

3.54.6 ip http proxy force-origin

Description Enable enforcement of the Origin header for proxies.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config-http-proxy)> **force-origin** *‹force-origin›*

(config-http-proxy)> **no force-origin**

Arguments

Argument	Value	Description
force-origin	*String*	Hostname or IP address of an HTTP or HTTPS endpoint.

Example

```
(config-http-proxy)> force-origin https://my.example.com
Http::Proxy: "TEST": enabled Origin header enforcing to ►
"https://my.example.com".
```

```
(config-http-proxy)> force-origin http://192.168.1.2
Http::Proxy: "TEST": enabled Origin header enforcing to ►
"http://192.168.1.2".
```

```
(config-http-proxy)> no force-origin
Http::Proxy: "TEST": disabled Origin header enforcing.
```

History

Version	Description
5.00	The **ip http proxy force-origin** command has been introduced.

3.54.7 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.

3.54.8 ip http proxy preserve-origin

Description

Enable the option to save the Origin 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-origin**

(config-http-proxy)> **no preserve-origin**

Example

```
(config-http-proxy)> preserve-origin
Http::Proxy: "test": enabled Origin header preservation.
```

```
(config-http-proxy)> no preserve-origin
Http::Proxy: "test": disabled Origin header preservation.
```

History

Version	Description
4.02	The **ip http proxy preserve-origin** command has been introduced.

3.54.9 ip http proxy preserve-referer

Description Enable the option to save the Referer 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-referer**

(config-http-proxy)> **no preserve-referer**

Example

```
(config-http-proxy)> preserve-referer
Http::Proxy: "test": enabled Referer header preservation.
```

```
(config-http-proxy)> no preserve-referer
Http::Proxy: "test": disabled Referer header preservation.
```

History

Version	Description
4.02	The **ip http proxy preserve-referer** command has been introduced.

3.54.10 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`	*Keyword*	Access to the HTTP proxy is allowed for public, private and protected interfaces.
`private`	*Keyword*	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.

3.54.11 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.

3.54.12 ip http proxy timeout

Description Configure connection timeout for HTTP proxies. By default, the value `60` is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

(config-http-proxy)> **timeout** *‹timeout›*

(config-http-proxy)> **no timeout**

Arguments

Argument	Value	Description
`timeout`	*Integer*	Timeout value in the range from `5` to `86400` seconds.

Example

```
(config-http-proxy)> timeout 5
Http::Proxy: "test": set upstream timeout to "5" s.
```

```
(config-http-proxy)> no timeout
Http::Proxy: "test": reset upstream timeout.
```

History

Version	Description
4.02	The **ip http proxy timeout** command has been introduced.

3.54.13 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** | **connect**) (*‹mac›* | *‹ip›* | *‹fqdn›*) [*‹port›*]

(config-http-proxy)> **no upstream**

Arguments

Argument	Value	Description
`http`	*Keyword*	HTTP server.
`https`	*Keyword*	HTTPS server.
`connect`	*Keyword*	IP address and the port number of OpenVPN server.
`mac`	*MAC address*	MAC address of server.
`ip`	*IP address*	IP address of server.
`fqdn`	*FQDN*	Full domain name of server.
`port`	*Integer*	The port number.

Example

```
(config-http-proxy)> upstream http 192.168.1.1 8080
Http::Proxy: "test": set http upstream 192.168.1.1, port 8080.

(config-http-proxy)> upstream https example.com 443
Http::Proxy: "test": set https upstream example.com, port 443.

(config-http-proxy)> upstream connect 127.0.0.1 8000
Http::Proxy: "test": set connect upstream 127.0.0.1, port 8000.

(config-http-proxy)> no upstream
Http::Proxy: "test": reset upstream.
```

History

Version	Description
2.08	The **ip http proxy upstream** command has been introduced.
3.05	`https` keyword was added.
4.03	`connect` keyword was added.

3.54.14 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.

3.55 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`	*Keyword*	Access to the web interface is allowed for public, private and protected interfaces via HTTP and HTTPS.
`private`	*Keyword*	Access to the web interface is allowed for private interfaces.
`protected`	*Keyword*	Access to the web interface is allowed for private and protected interfaces.
`ssl`	*Keyword*	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.

3.56 ip http ssl acme debug

Description

Enable debug for the *ACME* service. By default, setting is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config)> **ip http ssl acme debug**

(config)> **no ip http ssl acme debug**

Example

```
(config)> ip http ssl acme debug
Acme::Client: Enabled debug.
```

```
(config)> no ip http ssl acme debug
Acme::Client: Disabled debug.
```

History

Version	Description
4.03	The **ip http ssl acme debug** command has been introduced.

3.57 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.

3.58 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	*String*	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.

3.59 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** *‹revoke›*

Arguments

Argument	Value	Description
revoke	*String*	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.

3.60 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.

3.61 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.

3.62 ip http ssl port

Description

Assign HTTPS port for Web interface of Explorer. 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

(config)> **ip http ssl port** *‹port›*

(config)> **no ip http ssl port**

Arguments

Argument	Value	Description
port	*Integer*	New HTTPS port.

Example

```
(config)> ip http ssl port 4343
Http::Manager: SSL port changed to 4343.
```

```
(config)> no ip http ssl port
Http::Manager: SSL port reset to 443.
```

History

Version	Description
4.00	The **ip http ssl port** command has been introduced.

3.63 ip http ssl redirect

Description Enable automatic redirection on domains with SSL certificate. 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)> **ip http ssl redirect**

(config)> **no ip http ssl redirect**

Example

```
(config)> ip http ssl redirect
Http::Manager: Redirect to SSL is enabled.
```

```
(config)> no ip http ssl redirect
Http::Manager: Redirect to SSL is disabled.
```

History

Version	Description
2.11	The **ip http ssl redirect** command has been introduced.

3.64 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	*String*	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.

3.65 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	*IP address*	Name server address.
port	*Integer*	Name server port.
domain	*String*	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	*Interface*	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.

3.66 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`	*Interface*	Source interface name (full name or an alias).
`address`	*IP address*	Together with mask *mask* sets the range of source IP addresses to be translated.
`mask`	*IP-mask*	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.

3.67 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.

3.68 ip nat oc

Description Enable translation for *OpenConnect* clients.

Note: Command is available if the *OpenConnect* 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 oc**

(config)> **no ip nat oc**

Example

```
(config)> ip nat oc
OcServer::Nat: OpenConnect VPN NAT enabled.
```

```
(config)> no ip nat oc
OcServer::Nat: OpenConnect VPN NAT disabled.
```

History

Version	Description
4.02	The **ip nat oc** command has been introduced.

3.69 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.

3.70 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.

3.71 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.

3.72 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 64 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	*Policy*	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.

3.72.1 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	*String*	An arbitrary description of the IP Policy. Latin letters, numbers, hyphens and underscores are acceptable. Not more than 256 characters.

Example

```
(config-policy)> description PolicyOne
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.

3.72.2 ip policy 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 for IP Policy specific.

Command with **no** prefix removes the IPv6 route with the specified parameters or all IPv6 routes.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

(config-policy)> **ipv6 route** ‹*prefix*› (‹*interface*› [‹*gateway*›] | ‹*gateway*›) [**auto**] [‹*metric*›] [**reject**]

(config-policy)> **no ipv6 route** [*prefix*] [‹*interface*› [‹*gateway*›] | ‹*gateway*›]

Arguments

Argument	Value	Description
prefix	*Prefix*	IPv6 prefix.
interface	*Interface*	Full interface name or an alias.
gateway	*IP address*	IP address of the router in a directly connected network.
auto	*Keyword*	Allows you to apply the route when specified gateway becomes available.

Argument	Value	Description
`metric`	*Integer*	Route metrics. Ignored in the current implementation.
`reject`	*Keyword*	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-policy)> ipv6 route 2002:c100:aeb5::/48 ISP auto reject
Network::Ip6::RoutingTable: Added static route: ►
2002:c100:aeb5::/48 via ISP.
```

```
(config-policy)> ipv6 route 2002:c100:aeb5::/48 ISP
Network::Ip6::RoutingTable: Added static route: ►
2002:c100:aeb5::/48 via ISP.
```

```
(config-policy)> no ipv6 route 2002:c100:aeb5::/48 ISP
Network::Ip6::RoutingTable: Deleted static route: ►
2002:c100:aeb5::/48 via ISP.
```

```
(config-policy)> no ipv6 route
Network::Ip6::RoutingTable: Cleared all routes.
```

History

Version	Description
4.03	The **ip policy ipv6 route** command has been introduced.
5.00	Multiple route removal support was added.

3.72.3 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.

3.72.4 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`	*Interface*	Full interface name or an alias.
`order`	*Integer*	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.

3.72.5 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.

3.72.6 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**

Arguments

Argument	Value	Description
`interface`	*Interface*	The name of a global IP interface to rate-limit its traffic for a group of policy assignees.

Argument	Value	Description
rate	*Integer*	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
auto	*Keyword*	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.
```

History

Version	Description
3.05	The **ip policy rate-limit input** command has been introduced.

3.72.7 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**

Arguments

Argument	Value	Description
interface	*Interface*	The name of a global IP interface to rate-limit its traffic for a group of policy assignees.
rate	*Integer*	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
auto	*Keyword*	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.

3.72.8 ip policy 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 for IP Policy specific.

Command with **no** prefix removes the route with the specified parameters or all routes.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

(config-policy)> **route** (*‹network› ‹mask›* | *‹host›*) (*‹gateway›* [*‹network›*] | *‹interface›*) [**auto**] [*‹metric›*] [**reject**]

(config-policy)> **no route** [*‹network› ‹mask›* | *‹host›*] [*‹interface›* | *‹gateway›*] [*‹metric›*]

Arguments

Argument	Value	Description
network	*IP address*	IP address of the destination network.
mask	*IP-mask*	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	*IP address*	IP address of the destination node.
interface	*Interface*	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.

Argument	Value	Description
		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`	*`IP address`*	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`	*`Keyword`*	Allows you to apply the route when specified gateway becomes available.
`metric`	*`Integer`*	Route metrics. Ignored in the current implementation.
`reject`	*`Keyword`*	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-policy)> route 203.0.113.123 Wireguard1 auto reject
Network::RoutingTable: Added static route: 203.0.113.123/32 via ►
Wireguard1.
```

```
(config-policy)> route 203.0.113.123 Wireguard1
Network::RoutingTable: Added static route: 203.0.113.123/32 via ►
Wireguard1.
```

```
(config-policy)> no route 203.0.113.123 Wireguard1
Network::RoutingTable: Deleted static route: 203.0.113.123/32 ►
via Wireguard1.
```

```
(config-policy)> no route 203.0.113.123
Network::RoutingTable: Deleted static route: 203.0.113.123/32 ►
via Wireguard1.
```

```
(config-policy)> no route
Network::RoutingTable: Cleared all routes.
```

History

Version	Description
4.03	The **ip policy route** command has been introduced.
5.00	Multiple route removal support was added.

3.72.9 ip policy standalone

Description

Enable “standalone” mode, which static routes through interfaces with the **global** property are not automatically copied from the main settings to the selected IP policy profile.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

(config-policy)> **standalone**

(config-policy)> **no standalone**

Example

```
(config-policy)> standalone
Network::PolicyTable: "Policy0": enable standalone mode.
```

```
(config-policy)> no standalone
Network::PolicyTable: "Policy0": disable standalone mode.
```

History

Version	Description
4.02	The **ip policy standalone** command has been introduced.

3.73 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 or all routes.

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	*IP address*	IP address of the destination network.
mask	*IP-mask*	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	*IP address*	IP address of the destination node.
default	*Keyword*	Helps specify default routes.
interface	*Interface*	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	*IP address*	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	*Keyword*	Allows you to apply the route when specified gateway becomes available.
metric	*Integer*	Route metrics. Ignored in the current implementation.
reject	*Keyword*	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)> no ip route default Home
Network::RoutingTable: No such route: 0.0.0.0/0 via Home.
```

```
(config)> ip route 203.0.113.123 Wireguard1 auto reject
Network::RoutingTable: Added static route: 203.0.113.123/32 via ►
Wireguard1.

(config)> no ip route 203.0.113.123 Wireguard1
Network::RoutingTable: Deleted static route: 203.0.113.123/32 ►
via Wireguard1.

(config)> ip route 203.0.113.123 Wireguard1
Network::RoutingTable: Added static route: 203.0.113.123/32 via ►
Wireguard1.

(config)> no ip route Wireguard1
Network::RoutingTable: Cleared routes on "Wireguard1".

(config)> no ip route default
Network::RoutingTable: Deleted route: 0.0.0.0/0 via 192.168.2.1 ►
(ISP).

(config)> no ip route
Network::RoutingTable: Cleared all routes.
```

History

Version	Description
2.00	The **ip route** command has been introduced.
3.08	The `reject` option was added.
5.00	Multiple route removal support was added.

3.74 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`	*String*	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.

3.75 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.

3.76 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`	*Integer*	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.

3.77 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.

3.77.1 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 AES256-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.
3.05	New encryption algorithms aes128-gcm@openssh.com, aes256-gcm@openssh.com were added.

3.77.2 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.

Argument	Value	Description
	`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.

3.77.3 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`	*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-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.

3.77.4 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`	*Integer*	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.

3.77.5 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`	*Keyword*	Access to the SSH server is allowed for public, private and protected interfaces.
`private`	*Keyword*	Access to the SSH server is allowed for private interfaces.
`protected`	*Keyword*	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.

3.77.6 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`	*Integer*	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.

3.78 ip static

Description

Create a static binding of local IP addresses to global ones. If *interface* or *network* corresponds to an interface with a public security level (the secutity level `public` parameter is set in the interface settings in the CLI), destination address translation (DNAT) will be performed. If *to-address* corresponds to an interface with a public security level, source address translation (SNAT) will be performed.

The TCP/UDP port number is always considered the destination port.

If *network* equals a single address and that address is equal to *to-address*, this rule will prohibit translation of the specified address, which could be performed based on the specified **ip nat** rules.

ip static rules have higher priority than the **ip nat** rules.

The rule can work either for one of two protocols (TCP or UDP) or for all protocols (including ICMP). If the TCP or UDP protocol type is not specified, then it is not possible to select a port number in the syntax.

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 removes the specified rule. If you use no argument, the entire list of all rules will be cleared.

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`	*TCP* protocol.
	`udp`	*UDP* protocol.
	`icmp`	*ICMP* protocol.
	`tcpudp`	*TCP* and *UDP* protocols.
	`gre`	*GRE* protocol.
	`ipip`	*IP in IP* protocol.
`interface`	*Interface*	Input interface name (full name or an alias).
`address`	*IP address*	Along with mask *mask* sets the range of destination IP addresses that are to be translated.
`mask`	*IP-mask*	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`	*Integer*	TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated.
`end-port`	*Integer*	The end of the range of ports.
`to-address`	*IP address*	The destination address after translation.
`to-host`	*MAC address*	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.

Argument	Value	Description
`to-port`	*Integer*	TCP/UDP port number after translation. If not specified, the destination port remains the same.
`to-interface`	*Interface*	Interface name after translation.

Example

```
(config)> ip static tcp ISP 8080 192.168.1.84 8080
Network::StaticNat: Static NAT rule has been added.

(config)> ip static tcp ISP 10000 through 20000 192.168.1.84
Network::StaticNat: Static NAT rule has been added.

(config)> ip static icmp 192.168.1.84 255.255.255.255 ► 
c1:2d:33:21:02:61
Network::StaticNat: Static NAT rule has been added.

(config)> ip static ISP 192.168.1.84
Network::StaticNat: Static NAT rule has been added.

(config)> ip static Home 203.0.113.10
Network::StaticNat: Static NAT rule has been added.

(config)> ip static 192.168.1.84 255.255.255.255 203.0.113.10
Network::StaticNat: Static NAT rule has been added.

(config)> ip static Home ISP
Network::StaticNat: Static NAT rule has been added.

(config)> ip static disable
Network::StaticNat: Static NAT disable unchanged.

(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.

3.79 ip static rule

Description

Disable or enable IP address translation rule, set rule operation time by schedule or assign new position in the list of rules.

Command with **no** prefix enables or disables 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*› | **order** ‹*new-index*›)

(config)> **no ip static rule** ‹*index*› (**disable** | **schedule**)

Arguments

Argument	Value	Description
index	*Integer*	The translation rule number.
disable	*Keyword*	Disable the translation rule.
schedule	*Schedule*	The name of the schedule that was created with **schedule** group of commands.
new-index	*Integer*	New position of the rule in the list.

Example

```
(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)> ip static rule 0 schedule test
Network::StaticNat: Static NAT rule schedule applied.
```

```
(config)> no ip static rule 0 schedule
Network::StaticNat: Static NAT rule schedule removed.
```

```
(config)> ip static rule 0 order 1
Network::StaticNat: Rule 0 moved to position 1.
```

History

Version	Description
2.08	The **ip static rule** command has been introduced.

3.80 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.

3.80.1 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`	*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-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.

3.80.2 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	*Integer*	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.

3.80.3 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	*Keyword*	Access to the Telnet server is allowed for public, private and protected interfaces.
private	*Keyword*	Access to the Telnet server is allowed for private interfaces.
protected	*Keyword*	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.

3.80.4 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	*Integer*	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.

3.80.5 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`	*Integer*	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.

3.81 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	*MAC address*	MAC address of the known host.
rate	*Integer*	Value of data download rate in Kbps. Limit sould be in the range from 64 Kbps to 1 Gbps.
upstream-rate	*Integer*	Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps.
schedule	*Schedule*	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.

3.82 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`	*Integer*	The data download rate in Kbps. Value sould be in the range from 64 Kbps to 1 Gbps.
`upstream-rate`	*Integer*	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.

3.83 iperf3 interface

Description Bind *iPerf3* server to a specific interface. By default, bind to all interfaces according to the security level.

Command with **no** prefix resets configuration.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

(config)> **iperf3 interface** ‹*interface*›

(config)> **no iperf3 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

```
(config)> iperf3 interface ISP
Iperf3::Server: Interface changed to ISP.
```

```
(config)> no iperf3 interface
Iperf3::Server: Interface reset.
```

History

Version	Description
5.00	The **iperf3 interface** command has been introduced.

3.84 iperf3 port

Description Assign TCP/UDP port for *iPerf3* server. By default, `5201` value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config)> **iperf3 port** ‹*port*›

(config)> **no iperf3 port**

Arguments

Argument	Value	Description
`port`	*Integer*	New TCP/UDP port.

Example

```
(config)> iperf3 port 5002
Iperf3::Server: Port changed to 5002.
```

```
(config)> no iperf3 port
Iperf3::Server: Port reset to 5201.
```

History

Version	Description
5.00	The **iperf3 port** command has been introduced.

3.85 iperf3 security-level

Description Set security level for *iPerf3* server. By default, `private` value is used.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(config)> **iperf3 security-level** (**public** | **private** | **protected**)

Arguments

Argument	Value	Description
`public`	*Keyword*	Access to the iPerf3 server is allowed for public, private and protected interfaces.
`private`	*Keyword*	Access to the iPerf3 server is allowed for private interfaces.
`protected`	*Keyword*	Access to the iPerf3 server is allowed for private and protected interfaces.

Example

```
(config)> iperf3 security-level  public
Iperf3::Server: Security level changed to public.
```

History

Version	Description
5.00	The **iperf3 security-level** command has been introduced.

3.86 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`	*Keyword*	Generate persistent unique prefix.
`prefix`	*Prefix*	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.

3.87 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	*IPv6-address*	Name server address.
domain	*String*	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	*Interface*	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 example.com
Dns::Manager: Name server 2001:4860:4860::8888 added, domain ►
example.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 example.com
Dns::Manager: Name server 2001:4860:4860::8888, domain ►
example.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.

3.88 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`	*Interface*	Full WAN-interface name or an alias.
`lan-iface`	*Interface*	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.

3.89 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 or all routes.

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	*Prefix*	IPv6 prefix.
default	*Keyword*	Default prefix.
interface	*Interface*	Full interface name or an alias.
gateway	*IP address*	IP address of the router in a directly connected network.

Example

```
(config)> ipv6 route 2002:c100:aeb5::/48 ISP auto reject
Network::Ip6::RoutingTable: Renewed static route: ►
2002:c100:aeb5::/48 via ISP.
```

```
(config)> ipv6 route 2002:c100:aeb5::/48 ISP
Network::Ip6::RoutingTable: Added static route: ►
2002:c100:aeb5::/48 via ISP.
```

```
(config)> no ipv6 route 2002:c100:aeb5::/48
Network::Ip6::RoutingTable: Deleted static route: ►
2002:c100:aeb5::/48 via ISP.
```

```
(config)> no ipv6 route 2002:c100:aeb5::/48 ISP
Network::Ip6::RoutingTable: Deleted static route: ►
2002:c100:aeb5::/48 via ISP.
```

```
(config)> ipv6 route 2002:c100:aeb5::/48 fe80::d69c:53ff:fe00:3df5
Network::Ip6::RoutingTable: Added static route: ►
2002:c100:aeb5::/48 via fe80::d69c:53ff:fe00:3df5.
```

```
(config)> no ipv6 route 2002:c100:aeb5::/48 ►
fe80::d69c:53ff:fe00:3df5
Network::Ip6::RoutingTable: Deleted static route: ►
2002:c100:aeb5::/48 via fe80::d69c:53ff:fe00:3df5.
```

```
(config)> no ipv6 route
Network::Ip6::RoutingTable: Deleted route: ::/0.
```

History

Version	Description
2.00	The **ipv6 route** command has been introduced.
2.11	gateway argument has been added.
5.00	Multiple route removal support was added.

3.90 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

Yes

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.

3.91 ipv6 static rule

Description

Disable IPv6 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

Synopsis

(config)> **ipv6 static rule** ‹*index*› (**disable** | **schedule** ‹*schedule*›)

(config)> **no ipv6 static rule** ‹*index*› (**disable** | **schedule**)

Arguments

Argument	Value	Description
`index`	*Integer*	The translation rule number.
`disable`	*Keyword*	Disable the translation rule.
`schedule`	*Schedule*	The name of the schedule that was created with **schedule** group of commands.

Example

```
(config)> ipv6 static rule 0 schedule test
Ip6::Firewall: Static rule schedule applied.
```

```
(config)> ipv6 static rule 0 disable
Ip6::Firewall: Static rule disabled.
```

```
(config)> no ipv6 static rule 0 disable
Ip6::Firewall: Static rule enabled.
```

```
(config)> no ipv6 static rule 0 schedule
Ip6::Firewall: Static rule schedule removed.
```

History

Version	Description
5.00	The **ipv6 static rule** command has been introduced.

3.92 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	*String*	Subnet name or an alias.

Example

```
(config)> ipv6 subnet Default
(config-subnet)>
```

History

Version	Description
2.00	The **ipv6 subnet** command has been introduced.

3.92.1 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.

3.92.2 ipv6 subnet dns-server

Description

Configure DNS server for subnets.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-subnet)> **dns-server** (*‹address1›* [*‹address2›*] | **disable**)

(config-subnet)> **no dns-server**

Arguments

Argument	Value	Description
address1	*IPv6-address*	Address of primary name DNS server.
address2	*IPv6-address*	Address of secondary name DNS server.
disable	*Keyword*	Disable DNS server.

Example

```
(config-subnet)> dns-server 2606:4700:4700::1111
Network::Ip6::Subnets: Set name server 2606:4700:4700::1111 for ►
subnet "Default".
```

```
(config-subnet)> dns-server 2606:4700:4700::1111 ►
2606:4700:4700::1001
Network::Ip6::Subnets: Set name servers 2606:4700:4700::1111 ►
2606:4700:4700::1001 for subnet "Default".
```

```
(config-subnet)> dns-server disable
Network::Ip6::Subnets: Disable name servers  for subnet "Default".
```

```
(config-subnet)> no dns-server
Network::Ip6::Subnets: Cleared name servers for subnet "Default".
```

History

Version	Description
4.03	The **ipv6 subnet dns-server** command has been introduced.

3.92.3 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.
```

History

Version	Description
2.00	The **ipv6 subnet mode** command has been introduced.

3.92.4 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›*

Arguments

Argument	Value	Description
number	*Integer*	Unique subnet ID.

Example

```
(config-subnet)> number 2
Ip6::Subnets: Number 2 assigned to subnet "Default".
```

History

Version	Description
2.00	The **ipv6 subnet number** command has been introduced.

3.92.5 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	*Integer*	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.

3.92.6 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`	*Integer*	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 defalut for subnet ►
"Default".
```

History

Version	Description
4.00	The **ipv6 subnet prefix length** command has been introduced.

3.93 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.

3.94 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	*String*	Arbitrary host name.
mac	*MAC address*	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.

3.95 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	*String*	Device ID — MAC address or CID.

Argument	Value	Description
eula-accept	*Keyword*	Send **eula accept** command.
dpn-accept	*Keyword*	Send Device Privacy Notice accept.
no-update	*Keyword*	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.

3.96 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.

3.97 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.

3.98 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`	*Interface*	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.

3.99 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`	*String*	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.

3.100 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	*String*	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.

3.101 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	*String*	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.

3.102 mws member port access

Description

Assign the LAN port of the Extender to the specified network segment.

By default, the LAN port is assigned to Home segment (`Bridge0`).

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config)> **mws member** *‹member›* **port** *‹port›* **access** *‹interface›*

(config)> **mws member** *‹member›* **port** *‹port›* **no access** [*‹interface›*]

Arguments

Argument	Value	Description
`member`	*`String`*	Device ID — MAC address or CID.
`port`	*`Integer`*	The LAN port number.
`interface`	*`Interface`*	Full name of the network segment (Bridge interface).

Example

```
(config)> mws member cb7038f8-c49b-11ea-8f23-e123fd1a0e3e port ► 
3 access Bridge2
Mws::Controller::Manager: "cb7038f8-c49b-11ea-8f23-e123fd1a0e3e": ► 
port "3" has been attached to "Bridge2".
```

```
(config)> mws member 11:ff:22:43:5c:bf port 1 access Bridge2
Mws::Controller::Manager: "11:ff:22:43:5c:bf": port "1" has been ► 
attached to "Bridge2".
```

```
(config)> mws member 11:ff:22:43:5c:bf port 1 no access Bridge2
Mws::Controller::Manager: "11:ff:22:43:5c:bf": port "1" has been ► 
attached to "Bridge0".
```

History

Version	Description
4.02	The **mws member port access** command has been introduced.

3.103 mws member port disable

Description

Disable the LAN port of the Extender.

Command with **no** prefix enables the LAN port.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config)> **mws member** *‹member›* **port** *‹port›* **disable**

(config)> **mws member** *‹member›* **port** *‹port›* **no disable**

Arguments

Argument	Value	Description
`member`	*`String`*	Device ID — MAC address or CID.
`port`	*`Integer`*	The LAN port number.

Example

```
(config)> mws member 21:f3:20:43:5c:bf port 3 disable
Mws::Controller::Manager: "21:f3:20:43:5c:bf": port "3" has been ►
set to "down".
```

```
(config)> mws member 21:f3:20:43:5c:bf port 3 no disable
Mws::Controller::Manager: "21:f3:20:43:5c:bf": port "3" has been ►
set to "up".
```

History

Version	Description
4.02	The **mws member port disable** command has been introduced.

3.104 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›*]

Arguments

Argument	Value	Description
member	*String*	Device ID — MAC-address or CID.
interval	*Integer*	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.
```

History

Version	Description
3.08	The **mws member reboot** command has been introduced.

3.105 mws member update channel

Description

Configure the update channel for the Extenders. 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)> **mws member** *‹member›* **update channel** *‹channel›*

(config)> **no mws member** *‹member›* **update channel**

Arguments

Argument	Value	Description
member	*String*	Device ID — MAC address or CID.
channel	*String*	Update channel name. The list of channels is available in the command **components auto-update channel**.

Example

```
(config)> mws member 8a33ff16-2c3c-11ef-9111-7bd989541127 update ►
channel preview
Mws::Controller::MemberList: "50:11:20:22:33:1b" update channel ►
is "preview".
```

```
(config)> no mws member 8a33ff16-2c3c-11ef-9396-7bd989541127 ►
update channel
Mws::Controller::MemberList: "50:ff:20:c5:97:1b" reset an update ►
channel to default.
```

History

Version	Description
4.02	The **mws member update channel** command has been introduced.

3.106 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**

Arguments

Argument	Value	Description
member	*String*	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.

3.107 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	*String*	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.

3.108 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**

Arguments

Argument	Value	Description
member	*String*	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.
```

History

Version	Description
4.00	The **mws member update stop** command has been introduced.

3.109 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.
```

History

Version	Description
3.08	The **mws reboot** command has been introduced.

3.110 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	*String*	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.

3.111 mws stp encapsulation

Description Enable STP (Spanning Tree Protocol) encapsulation support for *MWS*. By default, setting is disabled.

Note: This option allows you to hide STP traffic between the MWS Controller and Extenders from intermediate switches by adding an additional encapsulation header.

The command must be executed on the MWS Controller before associating any Extenders. It is recommended to connect the Extender directly to one of the MWS Controller's ports.

Before using the command, you must remove all previously associated Extenders.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config)> **mws stp encapsulation**

(config)> **no mws stp encapsulation**

Example

```
(config)> mws stp encapsulation
Mws::Controller::Manager: Enabled STP encapsulation.
```

```
(config)> no mws stp encapsulation
Mws::Controller::Manager: Disabled STP encapsulation.
```

History

Version	Description
4.03	The **mws stp encapsulation** command has been introduced.

3.112 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	

Argument	Value	Description
	8192	
	12288	
	16384	
	20480	
	24576	
	28672	
	32768	
	36864	
	40960	
	45056	
	49152	
	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.

3.113 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	*Keyword*	Update the controller, don't try to update members. If members update is running, the controller will be updated after them.

Argument	Value	Description
members	*Keyword*	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.

3.114 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.

3.115 mws wlan

Description Access to a group of commands to configure wireless network.

Command with **no** prefix removes the specified wireless network. If you use no argument, the entire list of wireless networks will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry `(config-mws-wlan)`

Synopsis

(config)> **mws wlan** *‹id›*

(config)> **no mws wlan** [*‹id›*]

Arguments

Argument	Value	Description
id	*String*	Wireless network identifier.

Example

```
(config)> mws wlan wlan0
Mws::Wlan::Manager: Added the WLAN "wlan0".
(config-mws-wlan)>
```

```
(config)> no mws wlan wlan0
Mws::Wlan::Manager: Removed the WLAN "wlan0".
```

```
(config)> no mws wlan
Mws::Wlan::Manager: Removed all WLAN configurations.
```

History

Version	Description
5.01	The **mws wlan** command has been introduced.

3.115.1 mws wlan band

Description Configure a set of bands for wireless network.

For each added band, WLAN will try to add one Wi-Fi access point that supports this band (if any). If a band is removed after being added, the corresponding Wi-Fi access points will be disabled but not completely deconfigured - they will retain their settings, including SSID, security settings and bridge group.

Command with **no** prefix removes the specified radio band. If you use no argument, the entire list of radio bands will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

(config-mws-wlan)> **band** (*‹band›* | **all**)

(config-mws-wlan)> **no band** [*‹band›*]

Arguments

Argument	Value	Description
band	0	2,4 GHz band.
	1	5 GHz band.

Argument	Value	Description
	2	6 GHz band.
	`all`	Use all available radio bands.

Example

```
(config-mws-wlan)> band 0
Mws::Wlan::Manager: Band 0 is already set for WLAN "Home".
```

```
(config-mws-wlan)> band all
Mws::Wlan::Manager: Added all available bands supported by device ►
to WLAN "Home".
```

```
(config-mws-wlan)> no band 0
Mws::Wlan::Manager: Removed the band 0 from WLAN "Home".
```

```
(config-mws-wlan)> no band
Mws::Wlan::Manager: Removed all bands from WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan band** command has been introduced.

3.115.2 mws wlan band-steering enable

Description

Enable *Band Steering* for wireless network. This setting is automatically synchronized between all instances of the wireless networks attached to the same bridge interface. By default, the setting is enabled.

Command with **no** prefix disables the *Band Steering*.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **band-steering enable**

(config-mws-wlan)> **no band-steering enable**

Example

```
(config-mws-wlan)> band-steering enable
Mws::Wlan::Manager: Enabled band-steering for WLAN "Home".
```

```
(config-mws-wlan)> no band-steering enable
Mws::Wlan::Manager: Disabled band-steering for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan band-steering enable** command has been introduced.

3.115.3 mws wlan bind

Description Bind the wireless network to the specified bridge interface. If it is removed, the previously configured wireless network will be completely disassembled. If it is changed, the previously configured wireless network will be completely disassembled and then re-assembled using the new bridge interface.

Command with **no** prefix removes the wireless network binding.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **bind** *‹interface›*

(config-mws-wlan)> **no bind**

Arguments

Argument	Value	Description
`interface`	*Interface*	Bridge interface with `private` or `protected` security level. Multiple wireless network instances can be bound to the same bridge interface, provided that these instances use disjoint sets of bands.

Example

```
(config-mws-wlan)> bind Home
Mws::Wlan::Manager: Set the binding for WLAN "Home" to interface ►
"Home".
```

```
(config-mws-wlan)> no bind
Mws::Wlan::Manager: Removed the binding for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan bind** command has been introduced.

3.115.4 mws wlan description

Description Set the description for wireless network.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **description** *‹description›*

(config-mws-wlan)> **no description**

Arguments

Argument	Value	Description
description	*String*	Arbitrary description.

Example

```
(config-mws-wlan)> description Test
Mws::Wlan::Manager: Set the description for WLAN "Home" to "Test".
```

```
(config-mws-wlan)> no description
Mws::Wlan::Manager: Removed the description for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan description** command has been introduced.

3.115.5 mws wlan enable

Description

Enable the wireless network. When turned on or off, the administrative states of the Wi-Fi access points included in the WLAN are changed. The bridge interface state does not change.

Command with **no** prefix disables the wireless network.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **enable**

(config-mws-wlan)> **no enable**

Example

```
(config-mws-wlan)> enable
Mws::Wlan::Manager: Enabled WLAN "Home".
```

```
(config-mws-wlan)> no enable
Mws::Wlan::Manager: Disabled WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan enable** command has been introduced.

3.115.6 mws wlan encryption

Description

Set the encryption for wireless network.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **encryption** *‹encryption›*

(config-mws-wlan)> **no encryption**

Arguments

Argument	Value	Description
encryption	none	Encryption method.
	wep	
	wpa	
	wpa+wpa2	
	wpa2	
	wpa2+3	
	wpa3	
	wpa3-suite-b	
	owe	

Example

```
(config-mws-wlan)> encryption wpa2+3
Mws::Wlan::Manager: Set the encryption for WLAN "Home" to ►
"wpa2+3".
```

```
(config-mws-wlan)> no encryption
Mws::Wlan::Manager: Removed the encryption for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan encryption** command has been introduced.

3.115.7 mws wlan ft auto-setup

Description Automatically configure *FT* for the specified wireless network.

Prefix no No

Change settings No

Multiple input No

Synopsis

(config-mws-wlan)> **ft auto-setup**

Example

```
(config-mws-wlan)> ft auto-setup
Mws::Wlan::Manager: Completed the auto setup of FT parameters ►
for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan ft auto-setup** command has been introduced.

3.115.8 mws wlan ft enable

Description

Enable support of *FT* for wireless network.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **ft enable**

(config-mws-wlan)> **no ft enable**

Example

```
(config-mws-wlan)> ft enable
Mws::Wlan::Manager: Enabled FT for WLAN "Home".
```

```
(config-mws-wlan)> no ft enable
Mws::Wlan::Manager: Disabled FT for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan ft enable** command has been introduced.

3.115.9 mws wlan ft iapp key

Description

Set the *IAPP* key. This setting is automatically synchronized between all instances of the wireless networks attached to the same bridge interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **iapp key** *‹key›*

(config-mws-wlan)> **no iapp key**

Arguments

Argument	Value	Description
key	*String*	The value of *IAPP* key. Maximum key length is 64 characters.

Example

```
(config-mws-wlan)> ft iapp key 11223344556677
Mws::Wlan::Manager: Set the FT IAPP key for WLAN "Home".
```

```
(config-mws-wlan)> no ft iapp key
Mws::Wlan::Manager: Removed the FT IAPP key for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan ft iapp key** command has been introduced.

3.115.10 mws wlan ft mdid

Description

Set Mobility Domain ID for *FT*.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **ft mdid** ‹*mdid*›

(config-mws-wlan)> **no ft mdid**

Arguments

Argument	Value	Description
mdid	*String*	The value of Mobility Domain ID. Consists of 2 ASCII symbols.

Example

```
(config-mws-wlan)> ft mdid 1D
Mws::Wlan::Manager: Set the FT MDID for WLAN "Home" to "1D".
```

```
(config-mws-wlan)> no ft mdid
Mws::Wlan::Manager: Removed the FT MDID for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan ft mdid** command has been introduced.

3.115.11 mws wlan ft skip-band

Description Configure a set of bands that should be ignored by *FT*.

Command with **no** prefix removes the specified band from the setting. If you use no argument, the entire list of bands will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

(config-mws-wlan)> **ft skip-band** *‹skip-band›*

(config-mws-wlan)> **no ft skip-band** [*‹skip-band›*]

Arguments

Argument	Value	Description
skip-band	0	2,4 GHz band.
	1	5 GHz band.
	2	6 GHz band.

Example

```
(config-mws-wlan)> ft skip-band 0
Mws::Wlan::Manager: Added the band 0 to FT skip list for WLAN ►
"Home".
```

```
(config-mws-wlan)> no ft skip-band 0
Mws::Wlan::Manager: Removed the band 0 from FT skip list for ►
WLAN "Home".
```

```
(config-mws-wlan)> no ft skip-band
Mws::Wlan::Manager: Removed all bands from FT skip list for WLAN ►
"Home".
```

History

Version	Description
5.01	The **mws wlan ft skip-band** command has been introduced.

3.115.12 mws wlan mlo enable

Description Enable Multi-Link Operation.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **mlo enable**

(config-mws-wlan)> **no mlo enable**

Example

```
(config-mws-wlan)> mlo enable
Mws::Wlan::Manager: Enabled MLO for WLAN "Home".
```

```
(config-mws-wlan)> no mlo enable
Mws::Wlan::Manager: Disabled MLO for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan mlo enable** command has been introduced.

3.115.13 mws wlan mlo skip-band

Description

Configure the bands that should be ignored by Multi-Link Operation.

Command with **no** prefix removes the specified band from the setting. If you use no argument, the entire list of bands will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **mlo skip-band** *‹skip-band›*

(config-mws-wlan)> **no mlo skip-band** [*‹skip-band›*]

Arguments

Argument	Value	Description
skip-band	0	2,4 GHz band.
	1	5 GHz band.
	2	6 GHz band.

Example

```
(config-mws-wlan)> mlo skip-band 0
Mws::Wlan::Manager: Added the band 0 to MLO skip list for WLAN ►
"Home".
```

```
(config-mws-wlan)> no mlo skip-band 0
Mws::Wlan::Manager: Removed the band 0 from MLO skip list for ►
WLAN "Home".
```

```
(config-mws-wlan)> no mlo skip-band
Mws::Wlan::Manager: Removed all bands from MLO skip list for ►
WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan mlo skip-band** command has been introduced.

3.115.14 mws wlan peer-isolation

Description

Enable peer isolation for the wireless network. This setting is automatically synchronized between all instances of the wireless networks bound to the same bridge interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **peer-isolation**

(config-mws-wlan)> **no peer-isolation**

Example

```
(config-mws-wlan)> peer-isolation
Mws::Wlan::Manager: Enabled peer isolation for WLAN "Home".
```

```
(config-mws-wlan)> no peer-isolation
Mws::Wlan::Manager: Disabled peer isolation for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan peer-isolation** command has been introduced.

3.115.15 mws wlan rrm enable

Description

Enable *RRM* and BSS Transition Management.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **rrm enable**

(config-mws-wlan)> **no rrm enable**

Example

```
(config-mws-wlan)> rrm enable
Mws::Wlan::Manager: Enabled RRM for WLAN "Home".
```

```
(config-mws-wlan)> no rrm enable
Mws::Wlan::Manager: Disabled RRM for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan rrm enable** command has been introduced.

3.115.16 mws wlan rrm skip-band

Description

Configure a set of bands that should be ignored by *RRM* and BSS Transition Management.

Command with **no** prefix removes the specified band from the setting. If you use no argument, the entire list of bands will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **rrm skip-band** *‹skip-band›*

(config-mws-wlan)> **no rrm skip-band** [*‹skip-band›*]

Arguments

Argument	Value	Description
skip-band	0	2,4 GHz band.
	1	5 GHz band.
	2	6 GHz band.

Example

```
(config-mws-wlan)> rrm skip-band 0
Mws::Wlan::Manager: Added the band 0 to RRM skip list for WLAN ►
"Home".
```

```
(config-mws-wlan)> no rrm skip-band 0
Mws::Wlan::Manager: Removed the band 0 from RRM skip list for ►
WLAN "Home".
```

```
(config-mws-wlan)> no rrm skip-band
Mws::Wlan::Manager: Removed all bands from RRM skip list for ►
WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan rrm skip-band** command has been introduced.

3.115.17 mws wlan schedule

Description Assign a schedule to the wireless network.

Command with **no** prefix removes the schedule assigned.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **schedule** *‹schedule›*

(config-mws-wlan)> **no schedule**

Arguments

Argument	Value	Description
schedule	*Schedule*	The name of the schedule that was created with **schedule** group of commands.

Example

```
(config-mws-wlan)> schedule test
Mws::Wlan::Manager: Set the schedule for WLAN "Home" to "test".
```

```
(config-mws-wlan)> no schedule
Mws::Wlan::Manager: Removed the schedule for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan schedule** command has been introduced.

3.115.18 mws wlan ssid auto

Description Automatically generate the *SSID* for the wireless network.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **ssid auto** *‹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`	*`String`*	Custom string at the user's choice.

Example

```
(config-mws-wlan)> ssid auto mac4 test123
Mws::Wlan::Manager: Set the SSID name for WLAN "wlan2" to ►
"test1233DF5".
```

```
(config-mws-wlan)> ssid auto mac6 test12345
Mws::Wlan::Manager: Set the SSID name for WLAN "wlan2" to ►
"test12345003DF5".
```

History

Version	Description
5.01	The **mws wlan ssid auto** command has been introduced.

3.115.19 mws wlan ssid hide

Description

Hide the *SSID* of the wireless network.

Command with **no** prefix enables the *SSID* visibility.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **ssid hide**

(config-mws-wlan)> **no ssid hide**

Example

```
(config-mws-wlan)> ssid hide
Mws::Wlan::Manager: Hides the SSID for WLAN "Home".
```

```
(config-mws-wlan)> no ssid hide
Mws::Wlan::Manager: Shows the SSID for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan ssid hide** command has been introduced.

3.115.20 mws wlan ssid name

Description

Configure the *SSID* for the wireless network. This setting is required for WLAN operation. If the *SSID* is removed, the previously configured WLAN is completely disassembled.

Command with **no** prefix removes the *SSID* name.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **ssid name** ‹*name*›

(config-mws-wlan)> **no ssid name**

Arguments

Argument	Value	Description
name	*String*	Wireless Network Name (SSID). Must be unique among all WLANs.

Example

```
(config-mws-wlan)> ssid name TEST
Mws::Wlan::Manager: Set the SSID name for WLAN "Home" to "TEST".
```

```
(config-mws-wlan)> no ssid name
Mws::Wlan::Manager: Removed the SSID name for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan ssid name** command has been introduced.

3.115.21 mws wlan wep key

Description Configure a set of *WEP* encryption keys.

Command with **no** prefix removes the specified key. If you use no argument, the entire list of keys will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

(config-mws-wlan)> **wep key** ‹*key-id*› (‹*key*› **default** | **default** | ‹*key*›)

(config-mws-wlan)> **no wep key** [‹*key-id*›]

Arguments

Argument	Value	Description
key-id	*Integer*	The key number. Overall, up to 4 keys could be specified.
key	*String*	The key value.
default	*Keyword*	Indicates that this key will be used by default.

Example

```
(config-mws-wlan)> wep key 4 12345
Mws::Wlan::Manager: Set the WEP key "4" for WLAN "Home".
```

```
(config-mws-wlan)> wep key 4 default
Mws::Wlan::Manager: Set WEP key "4" as the default for WLAN ►
"Home".
```

```
(config-mws-wlan)> no wep key 1
Mws::Wlan::Manager: Removed the WEP key "1" for WLAN "Home".
```

```
(config-mws-wlan)> no wep key
Mws::Wlan::Manager: Removed the WEP keys for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan wep key** command has been introduced.

3.115.22 mws wlan wpa eap authentication

Description

Configure the EAP authentication method for *WPA Enterprise*.

Command with **no** prefix removes authentication.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

(config-mws-wlan)> **wpa eap authentication** *‹authentication›*

(config-mws-wlan)> **no wpa eap authentication**

Arguments

Argument	Value	Description
authentication	md5	Authentication method.
	ttls	
	peap	

Example

```
(config-mws-wlan)> wpa eap authentication md5
Mws::Wlan::Manager: Set the WPA-EAP authentication for WLAN ►
"Home" to "md5".
```

```
(config-mws-wlan)> no wpa eap authentication
Mws::Wlan::Manager: Removed the WPA-EAP authentication for WLAN ►
"Home".
```

History

Version	Description
5.01	The **mws wlan wpa eap authentication** command has been introduced.

3.115.23 mws wlan wpa eap radius secret

Description

Configure the *RADIUS* secret for *WPA Enterprise* authentication. This setting is automatically synchronized between all instances of the wireless networks bound to the same bridge interface.

Command with **no** prefix deletes the shared secret.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **wpa eap radius secret** ‹*secret*›

(config-mws-wlan)> **no wpa eap radius secret**

Arguments

Argument	Value	Description
`secret`	*String*	The value of *RADIUS* shared secret. Maximum key length is 64 characters.

Example

```
(config-mws-wlan)> wpa eap radius secret 249759296abcdf-=\
Mws::Wlan::Manager: Set the WPA-EAP RADIUS secret for WLAN "Home".
```

```
(config-mws-wlan)> no wpa eap radius secret
Mws::Wlan::Manager: Removed the WPA-EAP RADIUS secret for WLAN ►
"Home".
```

History

Version	Description
5.01	The **mws wlan wpa eap radius secret** command has been introduced.

3.115.24 mws wlan wpa eap radius server

Description

Configure the *RADIUS* server for *WPA Enterprise* authentication. This setting is automatically synchronized between all instances of the wireless networks bound to the same bridge interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input No

Synopsis

(config-mws-wlan)> **wpa eap radius server** ‹*address*› [**:port**]

(config-mws-wlan)> **no wpa eap radius server**

Arguments

Argument	Value	Description
address	*IP address*	*RADIUS* server IP address.
port	*Integer*	*RADIUS* server port.

Example

```
(config-mws-wlan)> wpa eap radius server 192.168.1.10
Mws::Wlan::Manager: Set the WPA-EAP RADIUS server for WLAN "Home" ►
to "192.168.1.10".
```

```
(config-mws-wlan)> wpa eap radius server 192.168.1.10:1111
Mws::Wlan::Manager: Set the WPA-EAP RADIUS server for WLAN "Home" ►
to "192.168.1.10:1111".
```

```
(config-mws-wlan)> no wpa eap radius server
Mws::Wlan::Manager: Removed the WPA-EAP RADIUS server for WLAN ►
"Home".
```

History

Version	Description
5.01	The **mws wlan wpa eap radius server** command has been introduced.

3.115.25 mws wlan wpa gcmp256

Description Enable GCMP256 encryption.

Command with **no** prefix disables encryption.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **wpa gcmp256**

(config-mws-wlan)> **no wpa gcmp256**

Example

```
(config-mws-wlan)> wpa gcmp256
Mws::Wlan::Manager: Enabled GCMP256 encryption for WLAN "Home".
```

```
(config-mws-wlan)> no wpa gcmp256
Mws::Wlan::Manager: Disabled GCMP256 encryption for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan wpa gcmp256** command has been introduced.

3.115.26 mws wlan wpa psk

Description

Configure the pre-shared key for *WPA* encryption.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **wpa psk** *‹psk›*

(config-mws-wlan)> **no wpa psk**

Arguments

Argument	Value	Description
psk	*String*	Pre-shared 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-mws-wlan)> wpa psk Ebnhaich91
Mws::Wlan::Manager: Set the WPA PSK for WLAN "Home".
```

```
(config-mws-wlan)> no wpa psk
Mws::Wlan::Manager: Removed the WPA PSK for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan wpa psk** command has been introduced.

3.115.27 mws wlan wpa sae ext-key enable

Description

Enable the WPA3-SAE extended key encryption.

Command with **no** prefix disables encryption.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-mws-wlan)> **wpa sae ext-key enable**

(config-mws-wlan)> **no wpa sae ext-key enable**

Example

```
(config-mws-wlan)> wpa sae ext-key enable
Mws::Wlan::Manager: Enabled WPA3-SAE extended key encryption for ►
WLAN "Home".
```

```
(config-mws-wlan)> no wpa sae ext-key enable
Mws::Wlan::Manager: Disabled WPA3-SAE extended key encryption ►
for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan wpa sae ext-key enable** command has been introduced.

3.115.28 mws wlan wps button

Description

Start *WPS* on the specified band in sending mode to connect a new Wi-Fi client using the software *WPS* button.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

(config-mws-wlan)> **wps button** ‹*band*›

Arguments

Argument	Value	Description
band	0	2,4 GHz band.
	1	5 GHz band.
	2	6 GHz band.

Example

```
(config-mws-wlan)> wps button 0
Network::Interface::Mtk::Wps: "WifiMaster0/AccessPoint2": WPS ►
PBC session started.
```

History

Version	Description
5.01	The **mws wlan wps button** command has been introduced.

3.115.29 mws wlan wps enable

Description Enable *WPS* for the specified wireless network.

Command with **no** prefix disables *WPS*.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-mws-wlan)> **wps enable**

(config-mws-wlan)> **no wps enable**

Example

```
(config-mws-wlan)> wps enable
Mws::Wlan::Manager: Enabled WPS for WLAN "Home".
```

```
(config-mws-wlan)> no wps enable
Mws::Wlan::Manager: Disabled WPS for WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan wps enable** command has been introduced.

3.115.30 mws wlan wps reset

Description Reset all active *WPS* sessions on the specified band.

Prefix no No

Change settings No

Multiple input No

Synopsis

(config-mws-wlan)> **wps reset** *‹band›*

Arguments

Argument	Value	Description
band	0	2,4 GHz band.
	1	5 GHz band.
	2	6 GHz band.

Example

```
(config-mws-wlan)> wps reset 0
Mws::Wlan::Manager: Reset the WPS for band 0 of WLAN "Home".
```

History

Version	Description
5.01	The **mws wlan wps reset** command has been introduced.

3.116 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	*MAC address*	MAC address of client device. It must be listed as a known host.
cid	*CID*	Identifier of *MWS* 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.

3.117 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.

3.117.1 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`	*MAC address*	MAC address to assign.
`token`	*Integer*	Authentication token (ID).
`iface`	*Interface*	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.

3.117.2 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`	*String*	Login to *NextDNS* account.
`password`	*String*	Password to *NextDNS* account.
`pin`	*String*	Pin to *NextDNS* 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.

3.117.3 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	*String*	Authentication token (ID) for *NextDNS* 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.

3.117.4 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.

3.118 ndns

Description Access to a group of commands to manage keenetic 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.

3.118.1 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`	*String*	The hostname for allocation.
`domain`	*String*	Second-level domain.
`access`	`auto`	Automatic access type.
	`cloud`	Hostname is registered on the cloud server IP address, HTTP traffic is tunneled to the Explorer.
	`direct`	Hostname is registered on the Explorer WAN-address.
`access6`	`cloud`	Enable cloud mode for IPv6 address.
`transfer-code`	*Hex*	Code for domain transmission to another Keenetic device. The length is 32 symbols.

Example

```
(ndns)> book-name test keenetic.pro

             done, layout = view, title = NDSS::ndns/bookName ►
(Public DNS Hostname Booking):
               client, geo = *, ip = 203.0.113.200, format = ►
clean, date = 2025-06-04T09:59:12.072Z, 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: test
               domain: keenetic.pro
                 acme: LE
              updated: 2025-06-04T09:59:12.059Z
              address: 0.0.0.0
               access: cloud
             address6: ::
              access6: cloud
             transfer: false

Ndns::Client: Booked "test.keenetic.pro".
```

```
(ndns)> book-name test keenetic.pro ►
121d567f901a345b289c121b567c903c

              done, layout = view, title = NDSS::ndns/bookName ►
(Public DNS Hostname Booking), sub-title =
The name booking was successful.: client, geo = *, ip = ►
203.0.113.137, 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: test
              domain: keenetic.pro
                acme: LE
             updated: 2018-12-13T08:47:11.014Z
             address: 0.0.0.0
              access: cloud
             access6: none
            transfer: true

Ndns::Client: Booked "test.keenetic.pro".
```

```
(ndns)> book-name test 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 = *, ip = 203.0.113.200, 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: test
              domain: keenetic.pro
                acme: LE
             updated: 2019-05-23T09:12:16.197Z
             address: 0.0.0.0
              access: cloud
            address6: ::
             access6: cloud
            transfer: false

Ndns::Client: Booked "test.keenetic.pro".
```

History

Version	Description
2.07	The **ndns book-name** command has been introduced.
2.14	Parameter `ipv6` was added.

3.118.2 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
name	*String*	The hostname for allocation.

Example

```
(ndns)> check-name testname

            list:
                item:
                  domain: keenetic.link
                    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.

3.118.3 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	*String*	The hostname for dropping.
domain	*String*	Second-level domain.

Example

```
(ndns)> drop-name test keenetic.pro

            done, title = The name is un-booked., x-xml-debug ►
= message-basic, hl = true, code = 200, icon = tick, layout = ►
message, delay = false, x-ui-debug = UiBasic-object, rootName = ►
done:
               client, geo = *, ip = 203.0.113.200, format = ►
clean, date = 2025-06-04T10:04:36.236Z, standalone = false:
               reason: Success
              message, debug = x-string, class = code ►
style--block: The name is un-booked.

               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:

Ndns::Client: Dropped "test keenetic.pro".
```

History

Version	Description
2.07	The **ndns drop-name** command has been introduced.

3.118.4 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 = *, ip = 203.0.113.200, format = ►
clean, date = 2025-06-10T11:35:27.933Z, 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: test
             domain: keenetic.pro
               acme: LE
            address: 0.0.0.0
             access: cloud
           address6: ::
            access6: cloud
            updated: 2025-06-10T07:19:49.113Z
           transfer: false

Ndns::Client: Got a booked name description.
```

History

Version	Description
2.08	The **ndns get-booked** command has been introduced.

3.118.5 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 selection of the IPv4 access mode. The router decides whether to use cloud access or direct access for IPv4, based on the presence of a public IPv4 address and NAT type.
	cloud	Enable cloud mode for IPv4. The KeenDNS domain name works via the KeenDNS cloud

Argument	Value	Description
		server, HTTP traffic is tunneled through the cloud proxy even if the router has a public IPv4 address.
	direct	Enable direct access for IPv4. The KeenDNS domain name is bound to your public IPv4 address, and traffic goes directly, without the cloud proxy. This command allows to enable support for the *Static NAT (NAT 1-1)* on the server side in the keenetic account parameters.
access6	auto	Automatic selection of the IPv6 access mode. The router decides whether to use cloud access for IPv6, based on the presence of a public IPv6 address and the provider.
	cloud	Enable cloud mode for IPv6. The KeenDNS domain name will also work via the KeenDNS cloud server for IPv6 addresses. The cloud provides an IPv6 web proxy and forwards requests to the router.
	direct	Enable direct access for IPv6. The KeenDNS domain name is bound to your public IPv6 address, and traffic goes directly, without the cloud proxy.

Example

```
(ndns)> get-update auto

             done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
               client, geo = *, ip = 198.51.100.200, format = ►
clean, date = 2025-06-04T10:13:22.594Z, 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: test
               domain: keenetic.pro
                 acme: LE
              address: 0.0.0.0
               access: cloud
```

```
              access6: none
              updated: 2025-06-04T10:08:29.866Z
             transfer: false

Ndns::Client: Updated a booked name.
```

```
(ndns)> get-update direct

             done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
               client, geo = *, ip = 198.51.100.200, format = ►
clean, date = 2025-06-04T10:16:04.151Z, 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: test
               domain: keenetic.pro
                 acme: LE
              address: 198.51.100.200
               access: direct
              access6: none
              updated: 2025-06-04T10:16:04.149Z
             transfer: false

Ndns::Client: Updated a booked name.
```

```
(ndns)> get-update auto ipv6 auto

             done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
               client, geo = RU, ip = 203.0.113.187, format = ►
clean, date = 2026-09-15T12:31:11.643Z, 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: test
              domain: keenetic.pro
                acme: LE
             address: 0.0.0.0
              access: cloud
             access6: none
             updated: 2026-09-15T12:26:37.811Z
            transfer: false

Ndns::Client: Updated a booked name.
```

```
(ndns)> get-update direct ipv6 direct

            done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
             client, geo = CH, ip = 198.51.100.200, format = ►
clean, date = 2026-09-15T13:35:25.747Z, 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: test
              domain: keenetic.pro
                acme: LE
             address: 198.51.100.200
              access: direct
            address6: fd30:911f:788:0:52ff:20ff:fe00:1e82
             access6: direct
             updated: 2026-09-15T13:34:15.975Z
            transfer: false

Ndns::Client: Updated a booked name.
```

```
(ndns)> get-update cloud ipv6 cloud

            done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
```

```
               client, geo = *, ip = 198.51.100.200, format = ►
clean, date = 2025-06-04T10:15:08.638Z, 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: test
               domain: keenetic.pro
                 acme: LE
              address: 0.0.0.0
               access: cloud
             address6: ::
              access6: cloud
              updated: 2025-06-04T10:15:08.633Z
             transfer: false

Ndns::Client: Updated a booked name.
```

History

Version	Description
2.07	The **ndns get-update** command has been introduced.
2.14	Parameter `ipv6` was added.
5.00	The **auto** and **direct** arguments were added for `ipv6`.

3.119 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.

3.119.1 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.

3.119.2 ntce filter assign host

Description

Assign *NTCE* filter profile to a registered host.

The new profile can be added with **ntce filter profile** command.

The list of profiles in the system can be displayed with **show ntce filter profile** 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-ntce)> **filter assign host** *‹host›* *‹profile›*

(config-ntce)> **no filter assign host** [*‹host›*]

Arguments

Argument	Value	Description
`host`	*`MAC address`*	MAC address of registered host.
`profile`	*`String`*	NTCE filter profile name.

Example

```
(config-ntce)> filter assign host 04:12:c4:54:bc:59 test
Ntce::Profiles: Associated host "04:d4:12:54:bc:59" with profile ►
"test".
```

```
(config-ntce)> no filter assign host 04:d4:12:54:bc:59
Ntce::Profiles: Removed profile for host "04:d4:12:54:bc:59".
```

```
(config-ntce)> no filter assign host
Ntce::Profiles: Removed profiles for hosts.
```

History

Version	Description
4.02	The **ntce filter assign host** command has been introduced.

3.119.3 ntce filter assign interface

Description

Assign *NTCE* filter profile to an interface.

The new profile can be added with **ntce filter profile** command.

The list of profiles in the system can be displayed with **show ntce filter profile** 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-ntce)> **filter assign interface** ‹*interface*› ‹*profile*›

(config-ntce)> **no filter assign interface** [‹*interface*›]

Arguments

Argument	Value	Description
`interface`	*`Interface`*	Network interface name.
`profile`	*`String`*	NTCE filter profile name.

Example

```
(config-ntce)> filter assign interface Bridge0 test
Ntce::Profiles: "test": associated interface "Bridge0" with ►
profile "test".
```

```
(config-ntce)> no filter assign interface Bridge0
Ntce::Profiles: Removed profile for interface "Bridge0".
```

```
(config-ntce)> no filter assign interface
Ntce::Profiles: Removed profiles for interfaces.
```

History

Version	Description
4.02	The **ntce filter assign interface** command has been introduced.

3.119.4 ntce filter profile

Description Create a custom *NTCE* filtering profile.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

(config-ntce)> **filter profile** *‹name›*

(config-ntce)> **no filter profile** *‹name›*

Arguments

Argument	Value	Description
name	*String*	NTCE filter profile name.

Example

```
(config-ntce)> filter profile test
Ntce::Profiles: Created profile "test".
```

```
(config-ntce)> no filter profile test
Ntce::Profiles: "test": removed profile.
```

History

Version	Description
4.02	The **ntce filter profile** command has been introduced.

3.119.5 ntce filter profile application

Description Add application to the *NTCE* filter profile.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-ntce)> **filter profile** ‹*name*› **application** ‹*application*›

(config-ntce)> **no filter profile** ‹*name*› **application** ‹*application*›

Arguments

Argument	Value	Description
name	*String*	NTCE filter profile name.
application	*String*	Application name.

Example

```
(config-ntce)> filter profile test application youtube-kids
Ntce::Profiles: "test": added application "youtube-kids".
```

```
(config-ntce)> no filter profile test application youtube-kids
Ntce::Profiles: "test": removed application "youtube-kids".
```

History

Version	Description
4.02	The **ntce filter profile application** command has been introduced.

3.119.6 ntce filter profile description

Description Assign description for the *NTCE* filter profile.

Command with **no** prefix deletes the profile description.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-ntce)> **filter profile** ‹*name*› **description** ‹*description*›

(config-ntce)> **no filter profile** ‹*name*› **description**

Arguments

Argument	Value	Description
name	*String*	NTCE filter profile name.
description	*String*	Arbitrary description of the profile.

Example

```
(config-ntce)> filter profile test description myprofile
Ntce::Profiles: "test": set description "myprofile".
```

```
(config-ntce)> no filter profile test description
Ntce::Profiles: "test": set description "".
```

History

Version	Description
4.02	The **ntce filter profile description** command has been introduced.

3.119.7 ntce filter profile group

Description

Add application group to the *NTCE* filter profile.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-ntce)> **filter profile** *‹name›* **group** *‹group›*

(config-ntce)> **no filter profile** *‹name›* **group** *‹group›*

Arguments

Argument	Value	Description
name	*String*	NTCE filter profile name.
group	*String*	Application group name.

Example

```
(config-ntce)> filter profile test group gaming
Ntce::Profiles: "test": added group "gaming".
```

```
(config-ntce)> no filter profile test group gaming
Ntce::Profiles: "test": removed group "gaming".
```

History

Version	Description
4.02	The **ntce filter profile group** command has been introduced.

3.119.8 ntce filter profile schedule

Description

Assign a schedule work to the *NTCE* filter profile.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-ntce)> **filter profile** ‹*name*› **schedule** ‹*schedule*›

(config-ntce)> **no filter profile** ‹*name*› **schedule**

Arguments

Argument	Value	Description
name	*String*	NTCE filter profile name.
schedule	*Schedule*	The name of the schedule that was created with **schedule** group of commands.

Example

```
(config-ntce)> filter profile test schedule schedule1
Ntce::Profiles: "test": set schedule "schedule1".
```

```
(config-ntce)> no filter profile test schedule
Ntce::Profiles: "test": removed schedule.
```

History

Version	Description
4.02	The **ntce filter profile schedule** command has been introduced.

3.119.9 ntce filter profile type

Description Set the permission type of the *NTCE* filter profile.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(config-ntce)> **filter profile** ‹*name*› **type** ‹*type*›

Arguments

Argument	Value	Description
name	*String*	NTCE filter profile name.
type	permit	Permit type profile.
	deny	Deny type profile.

Example

```
(config-ntce)> filter profile test type permit
Ntce::Profiles: "test": set type "permit".
```

```
(config-ntce)> filter profile test type deny
Ntce::Profiles: "test": set type "deny".
```

History

Version	Description
4.02	The **ntce filter profile type** command has been introduced.

3.119.10 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.

3.119.11 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).
	`filetransfering`	⑦ Low.
`priority`	*`Integer`*	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.

3.119.12 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.

3.119.13 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`	*Interface*	The name of a global interface to rate-limit.
`rate`	*Integer*	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
`auto`	*Keyword*	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.

3.119.14 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`	*Interface*	The name of a global interface to rate-limit.
`rate`	*Integer*	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
`auto`	*Keyword*	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.

3.120 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.

3.121 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.

3.122 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`	*String*	Host of *NTP* 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.

3.123 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	*IP address*	The source IP address for all NTP 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.

3.124 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	*Integer*	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.

3.125 object-group fqdn

Description

Create an object group with automatic FQDN name resolution.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Group entry

(config-ogrp-fqdn)

Synopsis

(config)> **object-group fqdn** *‹name›*

(config)> **no object-group fqdn** *‹name›*

Arguments

Argument	Value	Description
name	*String*	Name of the FQDN object group.

Example

```
(config)> object-group fqdn TEST
Network::ObjectGroup: "TEST": group created.
```

```
(config)> no object-group fqdn TEST
Network::ObjectGroup: "TEST": group removed.
```

History

Version	Description
4.03	The **object-group fqdn** command has been introduced.

3.125.1 object-group fqdn description

Description Assign a description to the object group.

Command with **no** prefix deletes the object group description.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-ogrp-fqdn)> **description** ‹*description*›

(config-ogrp-fqdn)> **no description**

Arguments

Argument	Value	Description
`description`	*`String`*	Arbitrary description of the object group.

Example

```
(config-ogrp-fqdn)> description test
Network::ObjectGroup: "domain-lis0": set group description.
```

```
(config-ogrp-fqdn)> no description
Network::ObjectGroup: "domain-lis0": reset group description.
```

History

Version	Description
4.03	The **object-group fqdn description** command has been introduced.

3.125.2 object-group fqdn exclude

Description Add or remove non-matching element of the object group.

Command with **no** prefix removes the setting. If you use no argument, the entire object group element list is cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

(config-ogrp-fqdn)> **exclude** ‹*address*›

(config-ogrp-fqdn)> **no exclude** [*‹address›*]

Arguments

Argument	Value	Description
address	*String*	IPv4 or IPv6 address, subnet mask (in prefix length notation, for example, /24), or domain name.

Example

```
(config-ogrp-fqdn)> exclude example.com
Network::ObjectGroup: "domain-list0": added excluded FQDN ►
"example.com".
```

```
(config-ogrp-fqdn)> exclude 8.8.8.8
Network::ObjectGroup: "domain-list0": added excluded FQDN ►
"8.8.8.8".
```

```
(config-ogrp-fqdn)> exclude 0.0.0.0/0
Network::ObjectGroup: "domain-list0": added excluded FQDN ►
"0.0.0.0/0".
```

```
(config-ogrp-fqdn)> exclude 2001:4860:4860::8888
Network::ObjectGroup: "domain-list0": added excluded FQDN ►
"2001:4860:4860::8888".
```

```
(config-ogrp-fqdn)> exclude ::/0
Network::ObjectGroup: "domain-list0": added excluded FQDN "::/0".
```

```
(config-ogrp-fqdn)> no exclude example.com
Network::ObjectGroup: "domain-list0": removed excluded FQDN ►
"example.com".
```

```
(config-ogrp-fqdn)> no exclude 8.8.8.8
Network::ObjectGroup: "domain-list0": removed excluded FQDN ►
"8.8.8.8".
```

```
(config-ogrp-fqdn)> no exclude 0.0.0.0/0
Network::ObjectGroup: "domain-list0": removed excluded FQDN ►
"0.0.0.0/0".
```

```
(config-ogrp-fqdn)> no exclude 2001:4860:4860::8888
Network::ObjectGroup: "domain-list0": removed excluded FQDN ►
"2001:4860:4860::8888".
```

```
(config-ogrp-fqdn)> no exclude ::/0
Network::ObjectGroup: "domain-list0": removed excluded FQDN ►
"::/0".
```

```
(config-ogrp-fqdn)> no exclude
Network::ObjectGroup: "domain-list0": cleared excluded.
```

History

Version	Description
4.03	The **object-group fqdn exclude** command has been introduced.

5.00	Added support for IP subnets.

3.125.3 object-group fqdn include

Description

Add or remove matching element of the object group.

Command with **no** prefix removes the setting. If you use no argument, the entire object group element list is cleared.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

(config-ogrp-fqdn)> **include** *‹address›*

(config-ogrp-fqdn)> **no include** [*‹address›*]

Arguments

Argument	Value	Description
address	*String*	IPv4 or IPv6 address, subnet mask (in prefix length notation, for example, /24), or domain name.

Example

```
(config-ogrp-fqdn)> include example.com
Network::ObjectGroup: "domain-list0": added included FQDN ►
"example.com".
```

```
(config-ogrp-fqdn)> include 8.8.8.8
Network::ObjectGroup: "domain-list0": added included FQDN ►
"8.8.8.8".
```

```
(config-ogrp-fqdn)> include 0.0.0.0/0
Network::ObjectGroup: "domain-list0": added included FQDN ►
"0.0.0.0/0".
```

```
(config-ogrp-fqdn)> include 2001:4860:4860::8888
Network::ObjectGroup: "domain-list0": added included FQDN ►
"2001:4860:4860::8888".
```

```
(config-ogrp-fqdn)> include ::/0
Network::ObjectGroup: "domain-list0": added included FQDN "::/0".
```

```
(config-ogrp-fqdn)> no include example.com
Network::ObjectGroup: "domain-list0": removed included FQDN ►
"example.com".
```

```
(config-ogrp-fqdn)> no include 8.8.8.8
Network::ObjectGroup: "domain-list0": removed included FQDN ►
"8.8.8.8".
```

```
(config-ogrp-fqdn)> no include 0.0.0.0/0
Network::ObjectGroup: "domain-list0": removed included FQDN ►
"0.0.0.0/0".
```

```
(config-ogrp-fqdn)> no include 2001:4860:4860::8888
Network::ObjectGroup: "domain-list0": removed included FQDN ►
"2001:4860:4860::8888".
```

```
(config-ogrp-fqdn)> no include ::/0
Network::ObjectGroup: "domain-list0": removed included FQDN ►
"::/0".
```

```
(config-ogrp-fqdn)> no include
Network::ObjectGroup: "domain-list0": cleared included.
```

History

Version	Description
4.03	The **object-group fqdn include** command has been introduced.
5.00	Added support for IP subnets.

3.126 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.

3.126.1 object-group ip description

Description Assign a description to the object group of IP type.

Command with **no** prefix deletes the object group description.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-ogrp-ip)> **description** *‹description›*

(config-ogrp-ip)> **no description**

Arguments

Argument	Value	Description
`description`	*`String`*	Arbitrary description of the object group of IP type.

Example

```
(config-ogrp-ip)> description test
Network::ObjectGroup: "domain-lis0": set group description.
```

```
(config-ogrp-ip)> no description
Network::ObjectGroup: "domain-lis0": reset group description.
```

History

Version	Description
4.03	The **object-group ip description** command has been introduced.

3.126.2 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.
	udp	*UDP* protocol.
	tcpudp	*TCP* and *UDP* protocols.
	icmp	*ICMP* protocol.
	esp	*ESP* protocol.
	gre	*GRE* protocol.
	ipip	*IP in IP* protocol.
address	*String*	IP address or subnet (in the form of prefix bit length (e.g. 203.0.113.0/24)).
port	*Integer*	TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated.
end-port	*Integer*	The end of the range of ports.

Example

```
(config-ogrp-ip)> exclude tcpudp 203.0.113.0/24 70 80
Network::ObjectGroup: "test": added exclude tcpudp 203.0.113.0/24 ►
70-80.
```

```
(config-ogrp-ip)> no exclude tcpudp 203.0.113.0/24 70 80
Network::ObjectGroup: "test": removed exclude tcpudp ►
203.0.113.0/24 70-80.
```

History

Version	Description
4.00	The **object-group ip exclude** command has been introduced.

3.126.3 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	*IP* protocol (include *TCP*, *UDP*, *ICMP* and other).
	tcp	*TCP* protocol.
	udp	*UDP* protocol.
	tcpudp	*TCP* and *UDP* protocols.
	icmp	*ICMP* protocol.
	esp	*ESP* protocol.
	gre	*GRE* protocol.
	ipip	*IP in IP* protocol.
address	*String*	IP address or subnet (in the form of prefix bit length (e.g. 203.0.113.0/24)).
port	*Integer*	TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated.
end-port	*Integer*	The end of the range of ports.

Example

```
(config-ogrp-ip)> include tcpudp 203.0.113.0/24 75 80
Network::ObjectGroup: "test": added include tcpudp 203.0.113.0/24 ►
75-80.
```

```
(config-ogrp-ip)> no include tcpudp 203.0.113.0/24 75 80
Network::ObjectGroup: "test": removed include tcpudp ►
203.0.113.0/24 75-80.
```

History

Version	Description
4.00	The **object-group ip include** command has been introduced.

3.127 oc-server

Description Access to a group of commands to configure *OpenConnect* server parameters.

Prefix no No

Change settings No

Multiple input No

Group entry (oc-server)

Synopsis

(config)> **oc-server**

Example

```
(config)> oc-server
(oc-server)>
```

History

Version	Description
4.02	The **oc-server** command has been introduced.

3.127.1 oc-server camouflage

Description

Enable the camouflage mode for the *OpenConnect* server, which provides greater security from remote service scanning. By default, the mode is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(oc-server)> **camouflage**

(oc-server)> **no camouflage**

Example

```
(oc-server)> camouflage
OcServer::Manager: Enabled camouflage mode.
```

```
(oc-server)> no camouflage
OcServer::Manager: Disabled camouflage mode.
```

History

Version	Description
4.02	The **oc-server camouflage** command has been introduced.

3.127.2 oc-server debug

Description

Enable debug mode for *OpenConnect* server. Detailed information about the progress of the *OpenConnect* client connection to the *OpenConnect* server 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

Synopsis

(oc-server)> **debug**

(oc-server)> **no debug**

Example

```
(oc-server)> debug
OcServer::Manager: Enabled debug.
```

```
(oc-server)> no debug
OcServer::Manager: Disabled debug.
```

History

Version	Description
4.03	The **oc-server debug** command has been introduced.

3.127.3 oc-server dns-servers

Description

Set the *DNS* server that is assigned to clients connecting to the *OpenConnect* server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(oc-server)> **dns-servers** *‹dns1›* [*‹dns2›*]

(oc-server)> **no dns-servers**

Arguments

Argument	Value	Description
dns1	*IP address*	Address of primary DNS server.
dns2	*IP address*	Address of secondary DNS server.

Example

```
(oc-server)> dns-servers 1.1.1.1
OcServer::Manager: Set custom DNS server "1.1.1.1".
```

```
(oc-server)> dns-servers 1.1.1.1 8.8.8.8
OcServer::Manager: Set custom DNS servers "1.1.1.1" and "8.8.8.8".
```

```
(oc-server)> no dns-servers
OcServer::Manager: Disabled custom DNS servers.
```

History

Version	Description
5.00	The **oc-server dns-servers** command has been introduced.

3.127.4 oc-server interface

Description Bind *OpenConnect* server to the specified interface.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(oc-server)> **interface** ‹*interface*›

(oc-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

```
(oc-server)> interface Bridge0
OcServer::Manager: Bound to Bridge0.
```

```
(oc-server)> no interface
OcServer::Manager: Reset interface binding.
```

History

Version	Description
4.02	The **oc-server interface** command has been introduced.

3.127.5 oc-server mtu

Description Set *MTU* value to be transmitted to *OpenConnect* 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

(oc-server)> **mtu** ‹*value*›

(oc-server)> **no mtu**

Arguments

Argument	Value	Description
`value`	*Integer*	*MTU* value. Can take values in the range from 128 to 1500 inclusively.

Example

```
(oc-server)> mtu 1350
OcServer::Manager: MTU set to 1350.
```

```
(oc-server)> no mtu
OcServer::Manager: MTU reset.
```

History

Version	Description
4.02	The **oc-server mtu** command has been introduced.

3.127.6 oc-server multi-login

Description

Allow connection to *OpenConnect* server for multiple users from one account.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(oc-server)> **multi-login**

(oc-server)> **no multi-login**

Example

```
(oc-server)> multi-login
OcServer::Manager: Enabled multiple login.
```

```
(oc-server)> no multi-login
OcServer::Manager: Disabled multiple login.
```

History

Version	Description
4.02	The **oc-server multi-login** command has been introduced.

3.127.7 oc-server pool-range

Description

Assign a pool of addresses for the clients that connect to the *OpenConnect* server.

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

Prefix no

Yes

Change settings Yes

Multiple input No

Synopsis

(oc-server)> **oc-server** ‹*begin*› [‹*size*›]

(oc-server)> **no oc-server**

Arguments

Argument	Value	Description
`begin`	*IP address*	Start address of pool.
`size`	*Integer*	Pool size.

Example

```
(oc-server)> pool-range 192.168.1.30 7
OcServer::Manager: Configured pool range 192.168.1.30 to ►
192.168.1.36.
```

```
(oc-server)> no pool-range
OcServer::Manager: Reset pool range.
```

History

Version	Description
4.02	The **oc-server pool-range** command has been introduced.

3.127.8 oc-server route

Description Assign a route which is transmitted in DHCP INFORM messages to the *OpenConnect* 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

(oc-server)> **route** ‹*address*› ‹*mask*›

(oc-server)> **no route** [‹*address*› ‹*mask*›]

Arguments

Argument	Value	Description
`address`	*IP address*	Network client address.
`mask`	*IP-mask*	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

```
(oc-server)> route 192.168.2.0/24
Vpn::DhcpInform: "OCSRVVPN": added DHCP INFORM route to ►
192.168.2.0/24.
```

```
(oc-server)> no route 192.168.2.0/24
Vpn::DhcpInform: "OCSRVVPN": removed DHCP INFORM route to ►
192.168.2.0/24.
```

```
(oc-server)> no route
Vpn::DhcpInform: "OCSRVVPN": cleared DHCP INFORM routes.
```

History

Version	Description
4.03	The **oc-server route** command has been introduced.

3.127.9 oc-server session-logout

Description Terminate an active or stalled session on the *OpenConnect* server.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(oc-server)> **session-logout** ‹*session*›

Arguments

Argument	Value	Description
session	*Integer*	Identifier of the OpenConnect session (can be viewed using the **show oc-server** command).

Example

```
(oc-server)> session-logout 6
OcServer::Manager: Session "6" is terminated.
```

History

Version	Description
4.03	The **oc-server session-logout** command has been introduced.

3.127.10 oc-server session-preempt

Description Enable to preempt VPN sessions when **oc-server multi-login** option is disabled for the *OpenConnect* server.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(oc-server)> **session-preempt**

(oc-server)> **no session-preempt**

Example

```
(oc-server)> session-preempt
OcServer::Manager: Enabled session preemption.
```

```
(oc-server)> no session-preempt
OcServer::Manager: Disabled session preemption.
```

History

Version	Description
4.03	The **oc-server session-preempt** command has been introduced.

3.127.11 oc-server static-ip

Description Bind IP address to the user. User account must have `vpn-oc` tag.

Command with **no** prefix removes binding.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

(oc-server)> **static-ip** *‹name› ‹address›*

(oc-server)> **no static-ip** *‹name›*

Arguments

Argument	Value	Description
`name`	*`String`*	Username.
`address`	*`IP address`*	IP address to bind.

Example

```
(oc-server)> static-ip admin 192.168.1.30
OcServer::Manager: Static IP 192.168.1.30 assigned to user ►
"admin".
```

```
(oc-server)> no static-ip admin
OcServer::Manager: Static IP address removed for user "admin".
```

History

Version	Description
4.02	The **oc-server static-ip** command has been introduced.

3.128 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	*String*	*Ping Check* 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.

3.128.1 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	*Hostname*	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 example.com
PingCheck::Profile: "test": add host "example.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.

3.128.2 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	*Integer*	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.

3.128.3 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	*Integer*	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.

3.128.4 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 `tls` argument was added.
4.00	The `uri` argument was added.

3.128.5 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	*Integer*	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.

3.128.6 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	*Integer*	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.

3.128.7 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	*Integer*	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.
```

History

Version	Description
2.04	The **ping-check profile update-interval** command has been introduced.

3.128.8 ping-check profile uri

Description Assign URI (Uniform Resource Identifier[20]) 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*›]

Arguments

Argument	Value	Description
uri	*Hostname*	Name or address of remote HTTP or HTTPS host.

[20] https://en.wikipedia.org/wiki/Uniform_Resource_Identifier

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.
```

History

Version	Description
4.00	The **ping-check profile uri** command has been introduced.

3.129 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.

3.130 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**

Arguments

Argument	Value	Description
wan-iface	*Interface*	The starting interface — full WAN-interface name or an alias.
lan-iface	*Interface*	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.
```

History

Version	Description
2.00	The **pppoe pass** command has been introduced.

3.131 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	*String*	A schedule name.

History

Version	Description
2.06	The **schedule** command has been introduced.

3.131.1 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	*Integer*	The minutes.
hour	*Integer*	The hours.
dow	*Integer*	Days of the week, separated by commas. 0 means Sunday. * means daily.

Example

```
(config-sched)> action start 00 3 0,1,2,3,4,5,6
Core::Schedule::Manager: Updated schedule "rebootrouter".
```

History

Version	Description
2.06	The **schedule action** command has been introduced.

3.131.2 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	*String*	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.

3.132 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.

3.133 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.

3.134 service dns-proxy

Description Enable DNS-proxy. To configure the parameters of the service, use Section 3.18 on page 112 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.

3.135 service http

Description Enable HTTP server that provides the user with Web-interface to configure Explorer.

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.

3.136 service igmp-proxy

Description Enable IGMP-proxy. For the service functioning it is necessary to have one `upstream` interface and at least one `downstream` 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.

3.137 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.

3.138 service iperf3

Description Enable the *iPerf3* server.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config)> **service iperf3**

(config)> **no service iperf3**

Example

```
(config)> service iperf3
Iperf3::Server: Already enabled.
```

```
(config)> no service iperf3
Iperf3::Server: Disabled.
```

History

Version	Description
5.00	The **service iperf3** command has been introduced.

3.139 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.

3.140 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.

3.141 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**.

3.142 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**.

3.143 service oc-server

Description Enable *OpenConnect* server.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config)> **service oc-server**

(config)> **no service oc-server**

Example

```
(config)> service oc-server
OcServer::Manager: Service enabled.
```

```
(config)> no service oc-server
OcServer::Manager: Service disabled.
```

History

Version	Description
4.02	The **service oc-server** command has been introduced.

3.144 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.

3.145 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.

3.146 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.

3.147 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.

3.148 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.

3.149 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.

3.150 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.

3.151 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**

History

Version	Description
2.00	The **show** command has been introduced.

3.151.1 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.

3.151.2 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	*String*	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.

3.151.3 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*›]

Arguments

Argument	Value	Description
name	*String*	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
```

History

Version	Description
2.00	The **show button** command has been introduced.

3.151.4 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: UnmountUsb1
      default_handler: UnmountUsb1
            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.

3.151.5 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.

3.151.6 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: 203.0.113.176

        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.

3.151.7 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
           usesdst: no
              rule: GMT0
            custom: no
```

History

Version	Description
2.00	The **show clock date** command has been introduced.

3.151.8 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.

3.151.9 show cloud

Description Show the status and statistics of the Cloud agent service.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)>  cloud
```

Example

```
(show)> cloud

           agent:
             service:
                        state: ACTIVE
```

```
                  token_alias: f1111ba19ac234234b35234234bff1cd
                        since: 1
                   loop_delay: 5
                 loop_interval: 17
                   loop_limit: 7
                   loop_sleep: 30
           tcp_connect_timeout: 10
                    serial_in: 920
                   serial_out: 963
                 direct_access: no
                     transport: udp
                   target_list: 192.0.2.238, 203.0.113.58, ►
198.51.100.68, 203.0.113.96, 198.51.100.67, 192.0.2.42
                   target_host: 192.0.2.238
                   target_port: 4044
               suspend_timeout: 0
         session_check_timeout: 70283
                   status_code: 0

                   event_store:
                          tx: 48
                        retx: 2
                     dropped: 2
                    cack_hit: 46
                   cack_miss: 0
                     pending: 0

               domain: keenetic.io
```

History

Version	Description
2.05	The **show cloud** command has been introduced.

3.151.10 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.

3.151.11 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.

3.151.12 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	*String*	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 ►
suite
             homepage: https://www.strongswan.org/

          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.

3.151.13 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	*String*	Name of selected *IKE* 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.

3.151.14 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	*String*	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.

3.151.15 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: *****92181
      servicehost: ndss.*.*
      servicepass: ***************
         wlanssid: Keenetic-0000
          wlankey: ********
          wlanwps: ********
          country: EA
          ndmhwid: KN-1621
          product: Giga
          ctrlsum: a******a4096b06a0f178abab3f2647d
           serial: S****WF******
        signature: valid
        integrity: ok
           locked: yes
```

History

Version	Description
2.00	The **show defaults** command has been introduced.

3.151.16 show device-list

Description Show the list of devices known to the system in the home network. If you use no arguments, the entire list of devices will be displayed. You can limit the output to a single device by its MAC address, or to the devices that are online right now.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **device-list** [(*‹mac›* | **online**)] [**detail** *‹details›*]

Arguments

Argument	Value	Description
mac	*MAC address*	MAC address of the host. Only this host will be displayed.
online	*Keyword*	Show only active hosts.
details	wireless	Additional information to include in the output. Several values can be specified separated by commas.
	switch	
	internet-access	
	shaper	
	account	

Example

```
(show)> device-list

            host:
                 mac: 52:f2:20:d1:38:ee
                 via: 52:f2:20:d1:38:ee
                  ip: 192.168.1.39

                 ip6: fd26:5bbb:5f55:0:50f2:20ff:fed1:38ee

            hostname: MYHOST
                name: HOST
       mws-backhaul: no

           interface:
                       id: Bridge0
                     name: Home
              description: Home network

                    dhcp:
                     expires: 14429

          registered: yes
              access: permit
            schedule:
```

```
              policy:
            priority: 6
              active: yes
             rxbytes: 8887939
             txbytes: 16946101
                link: up
    auto-negotiation: yes
               speed: 1000
              duplex: yes
                port: 1
              uptime: 287980
          first-seen: 287975
           last-seen: 2

       traffic-shape:
                      rx: 0
                      tx: 0
                    mode: mac
                schedule:

            host:
                 mac: c2:2d:44:26:03:63
                 via: c2:2d:44:26:03:63
                  ip: 192.168.1.82
                 ip6: fd26:5bbb:5f55:1:34de:b5aa:15ff:c4f0

                 ip6: fd26:5bbb:5f55:1:5c36:cf5d:a297:6526

                 ip6: fd26:5bbb:5f55:0:34de:b5aa:15ff:c4f0

                 ip6: fd26:5bbb:5f55:0:5c36:cf5d:a297:6526

                 ip6: fd26:5bbb:5f55:1:519d:6745:d25a:360b

                 ip6: fd26:5bbb:5f55:0:e3c5:b6f6:9cf1:c76

            hostname: my-PC
                name: my
         mws-backhaul: no

           interface:
                      id: Bridge0
                    name: Home
             description: Home network

                dhcp:
                 expires: 14912

           registered: yes
               access: permit
             schedule:
               policy:
             priority: 6
               active: yes
```

```
              rxbytes: 36538924147
              txbytes: 5823883416
                 link: up
     auto-negotiation: yes
                speed: 2500
               duplex: yes
                 port: 5
               uptime: 123691
           first-seen: 287990
            last-seen: 2

        traffic-shape:
                       rx: 0
                       tx: 0
                     mode: mac
                 schedule:
```

```
(show)> device-list online

             host:
                  mac: c2:3d:44:26:03:63
                  via: c2:3d:44:26:03:63
                   ip: 192.168.1.84

                  ip6: fd26:5bbb:5f55:1:34de:b5aa:15ff:c4f0

                  ip6: fd26:5bbb:5f55:1:5c36:cf5d:a297:6526

                  ip6: fd26:5bbb:5f55:0:34de:b5aa:15ff:c4f0

                  ip6: fd26:5bbb:5f55:0:5c36:cf5d:a297:6526

                  ip6: fd26:5bbb:5f55:1:519d:6745:d25a:360b

                  ip6: fd26:5bbb:5f55:0:e3c5:b6f6:9cf1:c76

              hostname: bequiet-PC
                  name: bequiet-PC
         mws-backhaul: no

            interface:
                       id: Bridge0
                     name: Home
              description: Home network

                  dhcp:
                   expires: 17856

            registered: yes
                access: permit
              schedule:
                policy:
              priority: 6
                active: yes
```

```
            rxbytes: 95821449193
            txbytes: 6333548393
               link: up
    auto-negotiation: yes
              speed: 2500
             duplex: yes
               port: 5
             uptime: 133347
         first-seen: 297646
          last-seen: 8

       traffic-shape:
                     rx: 0
                     tx: 0
                   mode: mac
              schedule:

            host:
                 mac: 61:2f:dd:f0:de:75
                 via: 61:2f:dd:f0:de:75
                  ip: 192.168.1.118

                 ip6: fd26:5bbb:5f55:0:89f5:c7cc:c7fa:75ea

                 ip6: fd26:5bbb:5f55:0:640f:ddff:fef0:de75

            hostname: MyHost
                name:
        mws-backhaul: no

           interface:
                     id: Bridge0
                   name: Home
             description: Home network

                dhcp:
                 expires: 25165

           registered: no
               access: permit
             schedule:
               policy:
             priority: 6
               active: yes
              rxbytes: 0
              txbytes: 0
                 link: down
               uptime: 36
           first-seen: 8714
            last-seen: 8

       traffic-shape:
                     rx: 0
                     tx: 0
```

```
                    mode: mac
                schedule:
```

```
(show)> device-list detail wireless

            host:
                 mac: 62:1f:ad:f0:de:75
                 via: 62:1f:ad:f0:de:75
                  ip: 192.168.1.119
                 ip6:
            hostname: MyHost
                name:
        mws-backhaul: no

           interface:
                     id: Bridge0
                   name:
             description:

                dhcp:
                 expires: 25154

          registered: no
              access: permit
            schedule:
              policy:
            priority: 6
              active: yes
             rxbytes: 0
             txbytes: 0
                link: up
                ssid: MyTest

                 mld:
                      ap: WifiMaster0/AccessPoint1
                     psm: yes
                     mld: yes
           authenticated: yes
                  txrate: 1
                  uptime: 46
                      ht: 20
                    mode: 11b
                      gi: 800
                    rssi: -38
                     mcs: 0
                    txss: 1
                     ebf: yes

                     _11: k

                     pmf: yes
                security: wpa3-psk

                 mld:
```

```
                        ap: WifiMaster1/AccessPoint1
                      psm: yes
                      mld: yes
            authenticated: yes
                   txrate: 1201
                   uptime: 46
                       ht: 80
                     mode: 11be
                       gi: 800
                     rssi: -37
                      mcs: 11
                     txss: 2
                      ebf: yes
                    dl-mu: yes
                    ul-mu: yes
                 dl-ofdma: yes

                      _11: k

                      _11: r

                      _11: v

                      pmf: yes
                 security: wpa3-psk

              uptime: 47
           first-seen: 42
            last-seen: 1

        traffic-shape:
                      rx: 0
                      tx: 0
                    mode: mac
                 schedule:
```

```
(show)> device-list 62:0f:dd:f1:de:43

             host:
                  mac: 62:0f:dd:f1:de:43
                  via: 62:0f:dd:f1:de:43
                   ip: 192.168.1.114
                  ip6:
              hostname: MyHost2
                  name:
         mws-backhaul: no

            interface:
                      id: Bridge0
                    name: Home
               description: Home network

                  dhcp:
                   expires: 24143
```

```
          registered: no
              access: permit
            schedule:
              policy:
            priority: 6
              active: yes
             rxbytes: 0
             txbytes: 0
                link: up
                ssid: MyTest

                 mld:
                      ap: WifiMaster0/AccessPoint1
                     psm: yes
                     mld: yes
           authenticated: yes
                  txrate: 1
                  uptime: 1018
                      ht: 20
                    mode: 11b
                      gi: 800
                    rssi: -38
                     mcs: 0
                    txss: 1
                     ebf: yes

                     _11: k

                     pmf: yes
               security: wpa3-psk

                 mld:
                      ap: WifiMaster1/AccessPoint1
                     psm: yes
                     mld: yes
           authenticated: yes
                  txrate: 1080
                  uptime: 1018
                      ht: 80
                    mode: 11be
                      gi: 800
                    rssi: -37
                     mcs: 10
                    txss: 2
                     ebf: yes
                  dl-mu: yes
                  ul-mu: yes
               dl-ofdma: yes

                     _11: k

                     _11: r
```

```
                    _11: v

                    pmf: yes
                security: wpa3-psk

              uptime: 1018
          first-seen: 1053
           last-seen: 13

       traffic-shape:
                     rx: 0
                     tx: 0
                   mode: mac
                schedule:
```

History

Version	Description
5.01	The **show device-list** command has been introduced.

3.151.17 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
rr_port = 40901
dns_server = 127.0.0.1:40500 . # 1.1.1.1@cloudflare-dns.com
dns_server = 127.0.0.1:40501 . # 1.0.0.1@cloudflare-dns.com
dns_server = 127.0.0.1:40502 . # 9.9.9.9@dns.quad9.net
dns_server = 127.0.0.1:40503 . # 8.8.8.8@dns.google
static_a = my.keenetic.net 198.51.100.11 1
```

```
static_aaaa = my.keenetic.net 2001:2::c633:640b 1
rpc_const = on
static_aaaa = mytest123.keenetic.pro 2001:2::c633:640b 1
static_a = cc6b5a71a7644903b51a5454.keenetic.io 198.51.100.11 1
static_aaaa = cc6b5a71a7644903b51a5454.keenetic.io ►
2001:2::c633:640b 1
static_a = mytest123.keenetic.pro 198.51.100.11 1
norebind_ctl = on
norebind_ip4net = 192.168.1.1:24
norebind_ip4net = 255.255.255.255:32
has_vpn_clients = off
set-profile-ip 127.0.0.1 0
set-profile-ip ::1 0
dns_tcp_port = 53
dns_udp_port = 53
fqdn_mirror_path = /var/run/fqdn-dns-mirror.sock


             proxy-stat:

# ndnproxy statistics file

Total incoming requests: 18
Proxy requests sent:     18
Cache hits ratio:        0.056 (1)
Memory usage:            19.03K

DNS Servers

                      Ip   Port  R.Sent  A.Rcvd  NX.Rcvd  ►
Med.Resp  Avg.Resp  Rank
               127.0.0.1  40500       0       0        0       ►
0ms       0ms     2
               127.0.0.1  40501       1       1        0       ►
80ms      80ms     6
               127.0.0.1  40502       1       1        0     ►
141ms     141ms     4
               127.0.0.1  40503      16      15        0       ►
23ms      34ms    10

              proxy-safe:


               proxy-tls:
               server-tls:
                      address: 1.1.1.1
                          sni: cloudflare-dns.com
                         spki:
                    interface:
                       domain:

               server-tls:
                      address: 1.0.0.1
                          sni: cloudflare-dns.com
```

```
                        spki:
                   interface:
                      domain:

              server-tls:
                     address: 9.9.9.9
                         sni: dns.quad9.net
                        spki:
                   interface:
                      domain:

              server-tls:
                     address: 8.8.8.8
                         sni: dns.google
                        spki:
                   interface:
                      domain:

      proxy-tls-filters:
            proxy-https:
    proxy-https-filters:
```

History

Version	Description
3.01	The **show dns-proxy** command has been introduced.

3.151.18 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`	*String*	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.

Element	Description
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.

3.151.19 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.

3.151.20 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`	*String*	Version of *DPN*. If not specified, the latest version is shown.
`language`	*String*	The language of *DPN*. 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

CONTRATO DE LICENCIA DEL USUARIO FINAL

Última actualización 30/03/2020

El presente contrato de licencia del usuario final (el presente ►
Contrato“)
constituye un acuerdo válido y vinculante celebrado entre Keenetic
Limited, incluidas todas las filiales y sucursales (”Keenetic“,
”nosotros“, ”nuestro/a“ o ”nos“) y Usted (tal y como se define a
continuación) del Software (tal y como se define a continuación), ►
incluido
el Software instalado en cualquiera de nuestros productos de ►
Keenetic (el
”Producto“) y/o el Software obtenido o proporcionado legalmente ►
por la
Plataforma de la aplicación (tal y como se define a continuación)
autorizado por Keenetic. Se referirá a Keenetic y Usted, en ►
conjunto, como
las ”Partes“ y, de forma individual, como una ”Parte“.
```

History

Version	Description
3.05	The **show dpn document** command has been introduced.

3.151.21 show dpn list

Description Show the list of *DPN* 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.

3.151.22 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

Multiple input No

Interface type Ethernet

Synopsis

(show)> **dot1x** [*interface*]

Arguments

Argument	Value	Description
interface	*Interface*	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.

3.151.23 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.

3.151.24 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.

3.151.25 show easyconfig status

Description Show EasyConfig status and settings.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **easyconfig status**

Example

```
(show)> easyconfig status

easyconfig:
            checked: Thu Nov  5 10:33:26 2026
            enabled: yes
           reliable: yes
 gateway-accessible: yes
     dns-accessible: yes
 captive-accessible: yes
           internet: yes
            gateway:
            interface: GigabitEthernet1
              address: 192.168.2.1
             failures: 0
           accessible: yes
             excluded: no
            captive:
                 host: captive.example.net
             response: 200 (OK)
             location:
             failures: 0
             resolved: yes
              address: *.119.198.*
```

History

Version	Description
2.00	The **show easyconfig status** command has been introduced.

3.151.26 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	*String*	Version of *EULA*. If not specified, the latest version is shown.
language	*String*	The language of *EULA*. 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

Настоящее Лицензионное соглашение с конечным пользователем ►
(настоящее «Соглашение») представляет собой действительное и ►
обязательное соглашение между Keenetic Limited, включая все ►
связанные с ней компании и все
её подразделения («Keenetic», «нам», «наш» или «мы»), и Вами ►
(как определено ниже) о Программном обеспечении (как определено ►
ниже), включая Программное обеспечение, устанавливаемое на любом ►
из продуктов
производства Keenetic («Продукт») и/или Программное обеспечение, ►
```

```
полученное на законных основаниях или предоставленное Магазином ►
Приложений (как определено ниже), авторизованной Keenetic. ►
Keenetic и Вы вместе
упоминаетесь как «Стороны», а по отдельности — «Сторона».
```

History

Version	Description
2.15	The **show eula document** command has been introduced.

3.151.27 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.

3.151.28 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	*Interface*	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.

3.151.29 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	*Interface*	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.

3.151.30 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	*Interface*	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.

3.151.31 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	*Interface*	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.

3.151.32 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	*Interface*	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.

3.151.33 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	*Interface*	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.

3.151.34 show interface esim status

Description Show the *eSIM* status.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **interface** ‹*name*› **esim status**

Arguments

Argument	Value	Description
name	*Interface*	Full name or an alias of the interface.

Example

```
(show)> interface UsbLte0 esim status

eid: 89086030202200000025000000665360
       ds-address: testrootsmds.gsma.com
  profile-version: 2.3.1
 firmware-version: 4.2.0
   free-nv-memory: 296629
      free-memory: 13887
```

History

Version	Description
5.00	The **show interface esim status** command has been introduced.

3.151.35 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	*Interface*	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.

3.151.36 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	*Interface*	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.

3.151.37 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	*Interface*	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.

3.151.38 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	*Interface*	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.
	8	Level of detail is 3 minutes.
	9	Level of detail is 5 minutes.

Argument	Value	Description
	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.

3.151.39 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	*Interface*	Full name or an alias of the Wi-Fi interface.
channel	*Integer*	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.
detail	0	RRD detalization level 64 x 1-minute. This value is used by default if the parameter is not specified explicitly.

Argument	Value	Description
	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.

3.151.40 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	*Interface*	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.

3.151.41 show interface vrrp

Description Show *VRRP* status for the interface.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **interface** ‹*name*› **vrrp**

Arguments

Argument	Value	Description
name	*Interface*	Full name or an alias of the interface.

Example

```
(show)> interface Bridge0 vrrp

         networks:
              network:
                    group: 1
                    ready: yes
                    state: master
                       ip: 192.168.2.10
```

History

Version	Description
5.00	The **show interface vrrp** command has been introduced.

3.151.42 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	*Interface*	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.

3.151.43 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	*Interface*	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

Element	Value
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.

3.151.44 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	*Interface*	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: 192.0.2.209/9993

                path: 192.0.2.209/9993

            peer:
             address: 458cde7190
             latency: 201
```

```
                role: PLANET
             version: -1.-1.-1

                path: 198.51.100.156/9993

           peer:
            address: 126127940c
            latency: 153
                role: LEAF
            version: 1.12.2

                path: 192.0.2.208/53871

                path: 192.0.2.208/53871

                path: 192.0.2.208/53871

           peer:
            address: fdfe04eba9
            latency: 129
                role: PLANET
            version: -1.-1.-1

                path: 198.51.100.155/9993

           peer:
            address: dfde9efeb9
            latency: 246
                role: PLANET
            version: -1.-1.-1

                path: 203.0.113.134/9993
```

History

Version	Description
4.01	The **show interface zerotier peers** command has been introduced.

3.151.45 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: example.com
                 failures: 0
                 resolved: no
                accessible: no
```

History

Version	Description
2.11	The **show internet status** command has been introduced.

3.151.46 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
```

```
198.51.100.150    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
203.0.113.163     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
203.0.113.129     00:30:48:89:b5:9f   ISP
```

History

Version	Description
2.00	The **show ip arp** command has been introduced.

3.151.47 show ip conntrack lockout

Description Show conntrack lockout status.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **ip hotspot lockout**

Example

```
(show)> ip conntrack lockout

          enabled: yes
           active: no
        time-left: 0
         max-size: 32768

            usage:
               public: 2
```

History

Version	Description
4.03	The **show ip conntrack lockout** command has been introduced.

3.151.48 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	*String*	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.

3.151.49 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	*String*	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.

3.151.50 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.

3.151.51 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.
	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.

3.151.52 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	
	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	*Integer*	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.

3.151.53 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.

3.151.54 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: 203.0.113.21
            port: 0
          domain:
          global: 64520
         service: Dhcp::Client-GigabitEthernet1
       interface: GigabitEthernet1

      server:
         address: 2001:db8:0:1::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.

3.151.55 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	*Keyword*	Only the records with *TCP* type will be displayed.

Example

```
(show)> ip nat
================================================================================
Type | In  | Source         Port  Destination    Port    Packets
     | Out |
================================================================================
udp         10.1.30.34      6482  198.51.100.159  40005   1
            198.51.100.159  40005 192.0.2.164     6482    1
--------------------------------------------------------------------------------
udp         203.0.113.179   6896  192.0.2.164     28197   1
            192.168.15.204  28197 203.0.113.179   6896    1
--------------------------------------------------------------------------------
tcp         10.1.30.33      57474 192.0.2.15      12350   12
            192.0.2.15      12350 192.0.2.164     57474   11
--------------------------------------------------------------------------------
udp         10.1.30.34      6482  192.0.2.165     44423   11
            192.0.2.165     44423 192.0.2.164     6482    16
--------------------------------------------------------------------------------
tcp         10.1.30.34      46655 198.51.100.21   443     2
            198.51.100.21   443   192.0.2.164     46655   0
--------------------------------------------------------------------------------
udp         10.1.30.34      6482  198.51.100.160  40006   1
            198.51.100.160  40006 192.0.2.164     6482    1
--------------------------------------------------------------------------------
```

History

Version	Description
2.00	The **show ip nat** command has been introduced.

3.151.56 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.

3.151.57 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	*Policy*	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: 198.51.100.1
              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: 192.0.2.84/32
                gateway: 198.51.100.1
              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: 198.51.100.0/24
                gateway: 0.0.0.0
              interface: ISP
                 metric: 0
                  proto: boot
```

```
                floating: no

              route:
            destination: 203.0.113.0/25
                gateway: 198.51.100.10
              interface: ISP
                 metric: 0
                  proto: boot
               floating: no

              route:
            destination: 203.0.113.22/32
                gateway: 198.51.100.1
              interface: ISP
                 metric: 0
                  proto: boot
               floating: no
```

History

Version	Description
2.12	The **show ip policy** command has been introduced.

3.151.58 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	*Integer*	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        Gateway         Interface                ►
       F  Metric
```

```
═══════════════════════════════════════════════════════════════════════
0.0.0.0/0           192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
1.1.1.1/32          0.0.0.0          Wireguard1                ►
       U  0
8.8.8.8/32          0.0.0.0          Wireguard7                ►
       U  0
10.1.30.0/24        0.0.0.0          Guest                     ►
       U  0
10.8.0.0/24         0.0.0.0          Wireguard3                ►
       U  0
172.16.85.0/24      0.0.0.0          Wireguard1                ►
       U  0
192.0.2.0/24        0.0.0.0          Wireguard7                ►
       U  0
192.168.1.0/24      192.168.15.88    Home                      ►
       U  0
192.168.15.0/24     0.0.0.0          Home                      ►
       U  0
192.168.17.0/24     0.0.0.0          Bridge2                   ►
       U  0
192.168.133.0/24    0.0.0.0          WifiMaster1/WifiStation0  ►
       U  0
192.168.220.0/24    0.0.0.0          Wireguard1                ►
       U  0
198.51.100.12/32    192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.0/27      0.0.0.0          Wireguard7                ►
       U  0
203.0.113.33/32     192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.86/32     192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.128/26    0.0.0.0          Wireguard7                ►
       U  0
203.0.113.215/32    192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
```

```
(show)> ip route sort interface ascending
═══════════════════════════════════════════════════════════════════════
Destination         Gateway          Interface                 ►
       F  Metric
═══════════════════════════════════════════════════════════════════════
192.168.1.0/24      192.168.15.88    Home                      ►
       U  0
192.168.15.0/24     0.0.0.0          Home                      ►
       U  0
10.1.30.0/24        0.0.0.0          Guest                     ►
       U  0
192.168.17.0/24     0.0.0.0          Bridge2                   ►
       U  0
0.0.0.0/0           192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
192.168.133.0/24    0.0.0.0          WifiMaster1/WifiStation0  ►
```

```
       U  0
198.51.100.21/32    192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.33/32     192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.86/32     192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.215/32    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
192.0.2.0/24        0.0.0.0          Wireguard7                ►
       U  0
203.0.113.0/27      0.0.0.0          Wireguard7                ►
       U  0
203.0.113.128/26    0.0.0.0          Wireguard7                ►
       U  0
```

```
(show)> ip route sort interface descending
═══════════════════════════════════════════════════════════════════
Destination         Gateway          Interface                 ►
       F  Metric
═══════════════════════════════════════════════════════════════════
203.0.113.128/26    0.0.0.0          Wireguard7                ►
       U  0
203.0.113.0/27      0.0.0.0          Wireguard7                ►
       U  0
192.0.2.0/24        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
203.0.113.215/32    192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.86/32     192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
203.0.113.33/32     192.168.133.1    WifiMaster1/WifiStation0  ►
       U  0
198.51.100.31/32    192.168.133.1    WifiMaster1/WifiStation0  ►
```

```
       U  0
192.168.133.0/24    0.0.0.0         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.

3.151.59 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.

3.151.60 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.

3.151.61 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.

3.151.62 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.

3.151.63 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.

3.151.64 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	*Integer*	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: 2001:db8:2:65d: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: 2001:db8:2:65d: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**.

3.151.65 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: 2001:db8:2ba1::/64
             interface: TunnelSixInFour0
         valid-lifetime: infinite
    preferred-lifetime: 0
                global: no
```

History

Version	Description
4.01	The **show ipv6 subnets** command has been introduced.

3.151.66 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.

3.151.67 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	
	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.

3.151.68 show led bindings

Description

Show the control associated with the specified LED. If you use no argument, the entire list of all LEDs with theirs 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	
	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.

3.151.69 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
                     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.

3.151.70 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	*Integer*	Limit for returned log items.
once	*Keyword*	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.

3.151.71 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.

3.151.72 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	*String*	Device ID — MAC address or CID.

Example

```
(show)> mws candidate d11246e8-583d-11ef-911a-1f4569ab1720

        candidate:
                  mac: 51:ff:21:c4:a1:83
                  cid: d11246e8-583d-11ef-911a-1f4569ab1720
                 mode: extender
                model: Explorer (KN-1621)
                state: COMPATIBLE_UPDATE
                   fw: 4.3.2
          fw-available: 5.0 Alpha 1
               license: 1111222233334444555
         eula-accepted: yes
```

```
          dpn-accepted: yes
     stp-encapsulation: yes

                  port:
                    label: 1

                  port:
                    label: 2

                  port:
                    label: 3

                  port:
                    label: 0

                   rci:
```

```
(show)> mws candidate 51:ff:21:c4:a1:83

        candidate:
                    mac: 51:ff:21:c4:a1:83
                    cid: d11246e8-583d-11ef-911a-1f4569ab1720
                   mode: extender
                  model: Explorer (KN-1621)
                  state: COMPATIBLE_UPDATE
                     fw: 4.3.2
          fw-available: 5.0 Alpha 1
               license: 1111222233334444555
         eula-accepted: yes
          dpn-accepted: yes
     stp-encapsulation: yes

                  port:
                    label: 1

                  port:
                    label: 2

                  port:
                    label: 3

                  port:
                    label: 0

                   rci:
```

History

Version	Description
2.15	The **show mws candidate** command has been introduced.

3.151.73 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	*Integer*	Limit of entries in the response.
once	*Keyword*	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.

3.151.74 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 1113b72-b339-11ee-911a-85c1127b77c0

          member:

                      cid: 1113b72-b339-11ee-911a-85c1127b77c0
                    model: Explorer (KN-1621)
                      mac: 50:ff:22:b1:1c:b1
               known-host: Keenetic Explorer
                       ip: 192.168.1.108
                     mode: extender
                  hw_type: extender
                    hw_id: KN-1621
                  license: 1114443339998889
                     fqdn: d11d2217db1f336a7a48e0a.keenetic.io

    fqdn-certificate-valid: yes
         cloud-agent-state: ACTIVE
        internet-available: yes
                       fw: 4.3.6.3
             fw-available: 5.0.3
               fw-release: 4.03.C.6.3-9
      fw-release-available: 5.00.C.3.0-2
       fw-update-available: yes
         fw-update-sandbox: preview
                    region: EA
             associations: 1

             capabilities:
                    acme: yes
             auth-token: yes
         auto-ap-shutdown: yes
             backhaul-bss: yes
                   cloud: yes
              controller: yes
             comp-status: yes
             country-code: yes
                dual-band: yes
                 mac-band: yes
                  mode-hw: no
                mws-assoc: yes
               new-commit: yes
                   notify: yes
                      owe: yes
        seg-band-steering: yes
```

```
                  sta-mask: yes
                      wind: yes
                      wpa3: yes
                   wpa-eap: no
                     vht40: yes
           stp-encapsulation: no
            new-password-api: yes

              security-level:
                 cloud-control2: yes
                      interface: yes

                        system:
                     cpuload: 1
                      memory: 167648/262144
                      uptime: 5742864

                      backhaul:
                      uplink: WifiMaster1/WifiStation0
                        root: 8000.50:ff:20:9c:21:86
                      bridge: 8000.50:ff:20:9c:21:86
                        cost: 50
                          ap: WifiMaster1/Backhaul0
                         psm: no
                         mld: no
              authenticated: yes
                     txrate: 720
                     uptime: 4775389
                         ht: 80
                       mode: 11ax
                         gi: 800
                       rssi: -61
                        mcs: 7
                       txss: 2
                        ebf: yes
                      dl-mu: yes
                      ul-mu: yes
                   dl-ofdma: yes
                        pmf: yes
                   security: wpa3-psk

                           port:
                      label: 0
                 appearance: gray-rj45
                       link: up
                      speed: 1000
                     duplex: full

                           rci:
                     errors: 0
```

History

Version	Description
2.15	The **show mws member** command has been introduced.

3.151.75 show mws wlan

Description Show the status of the specified wireless network. If you use no argument, the entire list of WLANs will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **mws wlan** [‹*id*›]

Arguments

Argument	Value	Description
id	*String*	WLAN interface identifier.

Example

```
(show)> mws wlan


            wlan, id = wlan0:
    disabled-by-schedule: no

                    band, id = 0:
                 enabled: yes

            access-point, name = GuestWiFi:
                        wps:
                   configured: yes
                 auto-self-pin: no
                        status: disabled

                    band, id = 1:
                 enabled: yes

            access-point, name = GuestWiFi_5G:
                        wps:
                   configured: yes
                 auto-self-pin: no
                        status: disabled

            wlan, id = wlan1:
    disabled-by-schedule: no

                    band, id = 0:
                 enabled: yes

            access-point, name = WifiMaster0/AccessPoint2:
```

```
                        wps:
                      configured: yes
                    auto-self-pin: no
                           status: disabled

                     band, id = 1:
                   enabled: yes

              access-point, name = WifiMaster1/AccessPoint2:
                        wps:
                      configured: yes
                    auto-self-pin: no
                           status: disabled
```

```
(show)> mws wlan wlan1

              wlan, id = wlan1:
    disabled-by-schedule: no

                     band, id = 0:
                   enabled: yes

              access-point, name = WifiMaster0/AccessPoint2:
                        wps:
                      configured: yes
                    auto-self-pin: no
                           status: disabled

                     band, id = 1:
                   enabled: yes

              access-point, name = WifiMaster1/AccessPoint2:
                        wps:
                      configured: yes
                    auto-self-pin: no
                           status: disabled
```

History

Version	Description
5.01	The **show mws wlan** command has been introduced.

3.151.76 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: test
          booked: test
          domain: keenetic.pro
         address: 0.0.0.0
        address6: ::
         updated: yes
          access: cloud
         access6: cloud
             xns: ub5

             ttp:
              direct: no
           interface: GigabitEthernet1
             address: 203.0.113.200
            address6: ::

               tunnel:
                   client: *
                   target: *:80
            target-local: 192.168.133.40:49840
           target-remote: *:80
            default-fqdn: keenetic.io
             destination: 192.168.133.40:443
                dialback: ndns
                 timeout: 30
                  uptime: 8
                    idle: 0
                  linger: 8073
```

History

Version	Description
2.07	The **show ndns** command has been introduced.

3.151.77 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.

3.151.78 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.

3.151.79 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.

3.151.80 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.

3.151.81 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 Hoster.

        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.

3.151.82 show ntce filter profile

Description Show system list of *NTCE* filter profiles.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **ntce filter profile** [*‹name›*]

Arguments

Argument	Value	Description
name	*String*	The *NTCE* filter name. You can see the list of available filters with help of **ntce filter profile** [Tab] command.

Example

```
(show)> ntce filter profile


         profile:
                name: test
                type: deny
             schedule:
     schedule-active: no

         profile:
                name: test2
                type: deny
             schedule:
     schedule-active: no
```

```
(show)> ntce filter profile test


         profile:
                name: test
                type: deny
             schedule:
     schedule-active: no
```

History

Version	Description
4.02	The **show ntce filter profile** command has been introduced.

3.151.83 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: filetransfering
     groupset-long-id: File transfering

           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: filetransfering
       groupset-long-id: File transfering

             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: filetransfering
       groupset-long-id: File transfering

             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: filetransfering
     groupset-long-id: File transfering

           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.

3.151.84 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: filetransfering
                long: File transfering
```

History

Version	Description
3.07	The **show ntce groupsets** command has been introduced.

3.151.85 show ntce hosts

Description Show application statistics, which *NTCE* 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: filetransfering
              groupset-long-id: File transfering
        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.

3.151.86 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.

3.151.87 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

       conntrack:
                  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.

3.151.88 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.

3.151.89 show object-group fqdn

Description Show the specified *FQDN* object group. If you use no argument, the entire list of FQDN object groups will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **object-group fqdn** [‹*group*›]

Arguments

Argument	Value	Description
group	*String*	The FQDN object group name.

Example

```
(show)> object-group fqdn example


           group:
          group-name: example
             enabled: yes
      ipv4-addresses: 3
```

```
      ipv6-addresses: 4

              entry:
                   fqdn: ogads-pa.clients6.example.com
                   type: runtime
              deadline4: 143
              deadline6: 274
          fail-counter4: 0
          fail-counter6: 0
                 parent: example.com

                   ipv4:
                    address: 203.0.113.138
                        ttl: 168
               last-updated: 36

                   ipv6:
                    address: 2001:db8:4026:802::200a
                        ttl: 300
               last-updated: 36

              entry:
                   fqdn: ogs.example.com
                   type: runtime
              deadline4: 287
              deadline6: 297
          fail-counter4: 0
          fail-counter6: 0
                 parent: example.com

                   ipv4:
                    address: 203.0.113.142
                        ttl: 300
               last-updated: 27

                   ipv6:
                    address: 2001:db8:4026:804::200e
                        ttl: 300
               last-updated: 27

              entry:
                   fqdn: example.com
                   type: config
              deadline4: 2147483
              deadline6: 2147483
          fail-counter4: 0
          fail-counter6: 0
                   ipv4:
                   ipv6:

       excluded-ipv4:
       excluded-ipv6:
```

History

Version	Description
4.03	The **show object-group fqdn** command has been introduced.

3.151.90 show oc-server

Description Show current connections to the *OpenConnect* server.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **oc-server**

Example

```
(show)> oc-server

        ndns-name: mywrk.keenetic.link
             fqdn: 12af.mywrk.keenetic.link
           secret: 123e45ed
has-ndns-certificate: yes

           tunnel:
        clientaddress: 172.16.3.34
             username: mymy
               uptime: 30

            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
4.02	The **show oc-server** command has been introduced.

3.151.91 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	*String*	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.

3.151.92 show processes

Description Show statistics of CPU usage by services and processess.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **processes**

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.

3.151.93 show running-config

Description Show current settings, that is file `system:running-config` conteins, just like command **more** does.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **running-config**

Example

```
(show)> running-config
! $$$ Model: Keenetic Hopper
! $$$ Version: 2.06.1
! $$$ Agent: default
! $$$ Md5 checksum: 8c4b233db9ff35f1ea2fff277e36d9ea
! $$$ Username: admin
system
```

```
    set net.ipv4.ip_forward 1
    set net.ipv4.tcp_fin_timeout 30
    set net.ipv4.tcp_keepalive_time 120
    set net.ipv4.neigh.default.gc_thresh1 256
    set net.ipv4.neigh.default.gc_thresh2 1024
    set net.ipv4.neigh.default.gc_thresh3 2048
    set net.ipv6.neigh.default.gc_thresh1 256
    set net.ipv6.neigh.default.gc_thresh2 1024
    set net.ipv6.neigh.default.gc_thresh3 2048
    set net.netfilter.nf_conntrack_tcp_timeout_established 1200
    set net.netfilter.nf_conntrack_max 32768
    set vm.swappiness 60
    set vm.overcommit_memory 0
    set vm.vfs_cache_pressure 1000
    set dev.usb.force_usb2 0
    set net.ipv6.conf.all.forwarding 1
    domainname WORKGROUP
    hostname Keenetic-1111
    caption default
!
isolate-private
user admin
    tag cli
    tag http
    tag cifs
    tag printers
    tag webdav
!
interface FastEthernet0
    up
!
interface FastEthernet0/0
    rename 1
    switchport mode access
    switchport mode trunk
    switchport access vlan 1
    switchport trunk vlan 3
    up
!
interface FastEthernet0/1
    rename 2
    switchport mode access
    switchport mode trunk
    switchport access vlan 1
    switchport trunk vlan 3
    up
!
interface FastEthernet0/2
    rename 3
    switchport mode access
    switchport mode trunk
    switchport access vlan 1
    switchport trunk vlan 3
    up
```

```
!
interface FastEthernet0/Vlan1
    description "Home VLAN"
    ip dhcp client dns-routes
    up
!
interface FastEthernet0/Vlan3
    description "Guest VLAN"
    ip dhcp client dns-routes
    up
!
interface GigabitEthernet1
    rename ISP
    description "Broadband connection"
    mac address factory wan
    security-level public
    ip address dhcp
    ip dhcp client dns-routes
    ip global 700
    igmp upstream
    ipv6 address auto
    ipv6 prefix auto
    ipv6 name-servers auto
    up
!
interface GigabitEthernet1/0
    rename 0
    up
!
interface WifiMaster0
    compatibility BGN+AX
    tx-burst
    rekey-interval 86400
    beamforming explicit
    vht
    downlink-mumimo
    uplink-mumimo
    spatial-reuse
    up
!
interface WifiMaster0/AccessPoint0
    rename AccessPoint
    description "Wi-Fi access point"
    mac access-list type none
    wps
    authentication wpa-psk ns3 BMc1we4ZX9/fbJtDiM
    encryption enable
    encryption wpa2
    ip dhcp client dns-routes
    ssid Keenetic-1111
    wmm
    rrm
    ft mdid PX
    ft enable
```

```
    up
!
interface WifiMaster0/AccessPoint1
    rename GuestWiFi
    description "Guest access point"
    mac access-list type none
    ip dhcp client dns-routes
    ssid Guest
    wmm
    rrm
    ft mdid vX
    ft enable
    down
!
interface WifiMaster0/AccessPoint2
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster0/AccessPoint3
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster0/AccessPoint4
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster0/AccessPoint5
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster0/AccessPoint6
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster0/WifiStation0
    security-level public
    encryption disable
    ip dhcp client dns-routes
    down
!
interface WifiMaster1
    compatibility AN+AC+AX
    tx-burst
    rekey-interval 86400
```

```
    beamforming explicit
    target-waketime
    downlink-mumimo
    uplink-mumimo
    spatial-reuse
    up
!
interface WifiMaster1/AccessPoint0
    rename AccessPoint_5G
    description "5GHz Wi-Fi access point"
    mac access-list type none
    wps
    authentication wpa-psk ns3 BMcOw7dA7GFO4ZX9/fbJtDiM
    encryption enable
    encryption wpa2
    ip dhcp client dns-routes
    ssid Keenetic-1111
    wmm
    rrm
    ft mdid PX
    ft enable
    follow AccessPoint
    up
!
interface WifiMaster1/AccessPoint1
    rename GuestWiFi_5G
    description "5GHz Guest access point"
    mac access-list type none
    encryption disable
    ip dhcp client dns-routes
    ssid Guest
    rrm
    ft mdid vX
    ft enable
    follow GuestWiFi
    down
!
interface WifiMaster1/AccessPoint2
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster1/AccessPoint3
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster1/AccessPoint4
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
```

```
!
interface WifiMaster1/AccessPoint5
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster1/AccessPoint6
    mac access-list type none
    security-level private
    ip dhcp client dns-routes
    down
!
interface WifiMaster1/WifiStation0
    security-level public
    encryption disable
    ip dhcp client dns-routes
    down
!
interface Bridge0
    rename Home
    description "Home network"
    inherit GigabitEthernet0/Vlan1
    include AccessPoint
    include AccessPoint_5G
    mac access-list type none
    security-level private
    ip address 192.168.1.1 255.255.255.0
    ip dhcp client dns-routes
    igmp downstream
    band-steering
    iapp key ns3 4k/XpM98jF123131NK9eur5Jk7Cgq4PpBm4M6U+hwh27
    up
!
interface Bridge1
    rename Guest
    description "Guest network"
    traffic-shape rate 5120
    inherit GigabitEthernet0/Vlan3
    include GuestWiFi
    include GuestWiFi_5G
    mac access-list type none
    peer-isolation
    security-level protected
    ip address 10.1.30.1 255.255.255.0
    ip dhcp client dns-routes
    iapp key ns3 +lIvt9ohKnXsiIt131312jPtqCJfqtVjrdm/MCVxzNYOH
    down
!
ip dhcp pool _WEBADMIN
    range 192.168.1.33 192.168.1.152
    bind Home
    enable
!
```

```
ip dhcp pool _WEBADMIN_GUEST_AP
    range 10.1.30.33 10.1.30.152
    bind Guest
    enable
!
ip http security-level private
ip http lockout-policy 5 15 3
ip http ssl enable
ip http webdav
    security-level public
!
ip nat Home
ip nat Guest
ip telnet
    security-level private
    lockout-policy 5 15 3
!
ipv6 subnet Default
    bind Home
    mode slaac
    prefix length 64
    number 0
!
ipv6 local-prefix default
ppe software
ppe hardware
upnp lan Home
service dhcp
service dns-proxy
service igmp-proxy
service http
service cifs
service telnet
service ntp
service upnp
cifs
    automount
    permissive
!
dns-proxy
    rebind-protect auto
!
```

History

Version	Description
2.00	The **show running-config** command has been introduced.

3.151.94 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.

3.151.95 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.

3.151.96 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	*Interface*	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.

3.151.97 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.

3.151.98 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/t8TbJk5tCzreeGuhO3zaydu4

           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.

3.151.99 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.

3.151.100 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.

3.151.101 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.

3.151.102 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.

3.151.103 show system mode

Description Show system mode status.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **system mode**

Example

```
(show)> system mode

            mode:
              active: router
            selected: router
           supported: router, extender
       hw_controlled: no
           hw_locked: no
```

History

Version	Description
2.05	The **show system mode** command has been introduced.

3.151.104 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.

3.151.105 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.

3.151.106 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.

3.151.107 show upnp pinhole

Description Show *UPnP* pinhole rules. If you use no arguments, the entire list of pinhole rules will be displayed.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Synopsis

(show)> **upnp pinhole** [(*‹protocol›* *‹interface›* *‹port›*) | *‹index›*]

Arguments

Argument	Value	Description
`protocol`	`tcp`	*TCP* protocol.
	`udp`	*UDP* protocol.
`address`	*`IPv6 address`*	Destination IPv6 address for the pinhole rule.
`port`	*`Integer`*	Destination port number for the pinhole rule.
`index`	*`Integer`*	Index of the pinhole rule.

Example

```
(show)> upnp pinhole

            entry:
                index: 0
            interface: GigabitEthernet1
```

```
            protocol: tcp
             address: 2001:db8::1234
                port: 8181
         description:
              policy: System
             packets: 0
               bytes: 0

           entry:
               index: 1
           interface: GigabitEthernet1
            protocol: tcp
             address: 2001:db8::1234
                port: 8080
         description:
              policy: System
             packets: 0
               bytes: 0
```

```
(show)> upnp pinhole 1

entry:
index: 1
interface: GigabitEthernet1
protocol: tcp
address: 2001:db8::1234
port: 8080
description:
policy: System
packets: 0
bytes: 0
```

```
(show)> upnp pinhole tcp 2001:db8::1234 8080

           entry:
               index: 1
           interface: GigabitEthernet1
            protocol: tcp
             address: 2001:db8::1234
                port: 8080
         description:
              policy: System
             packets: 0
               bytes: 0
```

History

Version	Description
5.00	The **show upnp pinhole** command has been introduced.

3.151.108 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	*TCP* protocol.
	udp	*UDP* protocol.
interface	*Interface*	Interface associated with the redirect rule.
port	*Integer*	Destination port number for the rule.
index	*Integer*	Index of the rule.

Example

```
(show)> upnp redirect

            entry:
                index: 0
            interface: GigabitEthernet1
             protocol: tcp
                 port: 63982
          to-address: 192.168.25.84
             to-port: 63982
         description: qBittorrent/5.2.0
              policy: System
             packets: 0
               bytes: 0

            entry:
                index: 1
            interface: GigabitEthernet1
             protocol: udp
                 port: 63982
          to-address: 192.168.25.84
             to-port: 63982
         description: qBittorrent/5.2.0
              policy: System
             packets: 0
               bytes: 0
```

```
(show)> upnp redirect 1
```

```
            entry:
                index: 1
            interface: GigabitEthernet1
             protocol: udp
                 port: 63982
          to-address: 192.168.25.84
             to-port: 63982
         description: qBittorrent/5.2.0
              policy: System
             packets: 0
               bytes: 0
```

```
(show)> upnp redirect tcp GigabitEthernet1 63982

            entry:
                index: 0
            interface: GigabitEthernet1
             protocol: tcp
                 port: 63982
          to-address: 192.168.25.84
             to-port: 63982
         description: qBittorrent/5.2.0
              policy: System
             packets: 0
               bytes: 0
```

History

Version	Description
2.00	The **show upnp redirect** command has been introduced.

3.151.109 show version

Description Show firmware version.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **version**

Example

```
(show)> version

          release: 5.00.C.2.0-2
          sandbox: preview
            title: 5.0.2
             arch: aarch64

              ndm:
                exact: 0-a654284
                cdate: 3 Dec 2025
```

```
              bsp:
                exact: 0-e7c92fbd89
                cdate: 3 Dec 2025

              ndw:
             features: ►
dual_image,usb_3,usb_3_first,led_control,wifi_button,wifi5ghz,vht2ghz...
             components: ►
acl,afp,base,chilli,cloudcontrol,corewireless,ddns,dhcpd,dlna...

             ndw3:
              version: 5.0.43

             ndw4:
              version: 5.0.C.2.1

     manufacturer: Keenetic Ltd.
           vendor: Keenetic
           series: KN
            model: Explorer (KN-1621)
       hw_version: 12108000
          hw_type: router
            hw_id: KN-1621
           device: Explorer
          consent: EA
           region: EA
      description: Keenetic Explorer (KN-1621)
```

History

Version	Description
2.00	The **show version** command has been introduced.

3.151.110 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.

3.151.111 show wireguard-server

Description Show current connections to the *WireGuard* server.

Prefix no No

Change settings No

Multiple input No

Synopsis

(show)> **wireguard-server**

Example

```
(show)> wireguard-server

             id: Wireguard6
          index: 6
  interface-name: Wireguard6
           type: Wireguard
    description: Wireguard VPN Server

         traits: Ip

         traits: Ip6

         traits: Wireguard

           link: up
      connected: yes
          state: up
            mtu: 1324
```

```
  tx-queue-length: 50
       admin-only: no
          address: 172.16.6.1
             mask: 255.255.255.0
           uptime: 2436464
           global: no
   security-level: private
             ipv6:

        wireguard:
           public-key: ►
U123sdfJKJR9ePE1hkMLzvgG4tesKGkjNfHCdTf51T6PpZmo=
          listen-port: 41495
               status: up
         server-owned:

                  peer:
                       public-key: ►
6wfOaskdljaksld78667hHhspPsoe+9ELz5MOKb/X3Jl4ganM=
                     description: wg1
                      local-port: 41495
                         rxbytes: 0
                         txbytes: 0
                  last-handshake: 2147483647
                          online: no
                     remote-port: 0
                             via:
          local-endpoint-address: 0.0.0.0
         remote-endpoint-address: 0.0.0.0
                         enabled: yes
                          fwmark: 0

                  peer:
                       public-key: ►
IXsdfsdf18973981IsdfhWh6P2yIK+Z+HkSGx++Ak=
                     description: wg2
                      local-port: 41495
                         rxbytes: 0
                         txbytes: 0
                  last-handshake: 2147483647
                          online: no
                     remote-port: 0
                             via:
          local-endpoint-address: 0.0.0.0
         remote-endpoint-address: 0.0.0.0
                         enabled: yes
                          fwmark: 0

                  peer:
                       public-key: ►
Tasldkal;sdkal;k129873toKl5Iq4J4fdscwR09JJO23dA2WA=
                     description: wg3
                      local-port: 41495
                         rxbytes: 0
```

```
                      txbytes: 0
                last-handshake: 2147483647
                        online: no
                   remote-port: 0
                           via:
         local-endpoint-address: 0.0.0.0
        remote-endpoint-address: 0.0.0.0
                       enabled: yes
                        fwmark: 0
```

History

Version	Description
5.00	The **show wireguard-server** command has been introduced.

3.152 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`	*String*	New community name.

Example

```
(config)> snmp community Co_test
Snmp::Manager: SNMP community set to "Co_test".
(config)> no snmp community
Snmp::Manager: SNMP community reset to "public".
```

History

Version	Description
2.08	The **snmp community** command has been introduced.

3.153 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	*String*	*SNMP* contact info.

Example

```
(config)> snmp contact Cont_test
Snmp::Manager: SNMP contact info set to "Cont_test".
(config)> no snmp contact
Snmp::Manager: SNMP community info reset.
```

History

Version	Description
2.08	The **snmp contact** command has been introduced.

3.154 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	*String*	*SNMP* 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.

3.155 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	*String*	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.

3.156 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	*String*	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.

3.157 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

(config)> **snmp view include** *‹oid›*

(config)> **no snmp view include** [*‹oid›*]

Arguments

Argument	Value	Description
oid	*String*	Object identifier.

Example

```
(config)> snmp view client include internet
Snmp::Manager: "client": added included OID "internet".
```

```
(config)> no snmp view client include internet
Snmp::Manager: "client": removed included OID "internet".
```

History

Version	Description
4.01	The **snmp view include** command has been introduced.

3.158 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

(config)> **`sstp-server`**

History

Version	Description
2.12	The **sstp-server** command has been introduced.

3.158.1 sstp-server allow-bridging

Description Enable Ethernet bridging mode for *SSTP* server. By default, this mode is disabled.

Note: The bridging mode is supported between Keenetic routers.

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

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.

3.158.2 sstp-server camouflage

Description

Enable the camouflage mode for the *SSTP* server, which provides greater security from remote service scanning. By default, the mode is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(sstp-server)> **camouflage**

(sstp-server)> **no camouflage**

Example

```
(sstp-server)> camouflage
SstpServer::Manager: Enabled camouflage mode.
```

```
(sstp-server)> no camouflage
SstpServer::Manager: Disabled camouflage mode.
```

History

Version	Description
4.02	The **sstp-server camouflage** command has been introduced.

3.158.3 sstp-server debug

Description

Enable debug mode for *SSTP* server. Detailed information about the progress of the *SSTP* client connection to the *SSTP* server 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

Synopsis

(sstp-server)> **debug**

(sstp-server)> **no debug**

Example

```
(sstp-server)> debug
SstpServer::Manager: Enabled debug.
```

```
(sstp-server)> no debug
SstpServer::Manager: Disabled debug.
```

History

Version	Description
4.03	The **sstp-server debug** command has been introduced.

3.158.4 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	*IP address*	Network client address.
mask	*IP-mask*	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.

3.158.5 sstp-server dns-servers

Description

Set the *DNS* server that is assigned to clients connecting to the *SSTP* server.

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

Prefix no

Yes

Change settings Yes

Multiple input No

Synopsis

(sstp-server)> **dns-servers** *‹dns1›* [*‹dns2›*]

(sstp-server)> **no dns-servers**

Arguments

Argument	Value	Description
dns1	*IP address*	Address of primary DNS server.
dns2	*IP address*	Address of secondary DNS server.

Example

```
(sstp-server)> dns-servers 1.1.1.1
SstpServer::Manager: Set custom DNS server "1.1.1.1".
```

```
(sstp-server)> dns-servers 1.1.1.1 8.8.8.8
SstpServer::Manager: Set custom DNS servers "1.1.1.1" and ►
"8.8.8.8".
```

```
(sstp-server)> no dns-servers
SstpServer::Manager: Disabled custom DNS servers.
```

History

Version	Description
5.00	The **sstp-server dns-servers** command has been introduced.

3.158.6 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	*Interface*	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.

3.158.7 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.

3.158.8 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`	*Integer*	Interval between sending *LCP* echo, in seconds. If within the specified time interval there is no *LCP* echo request from the remote location, the same request will be sent there asking for response *LCP* reply.
`count`	*Integer*	The number of consecutive requests *LCP* echo sent, for which no response *LCP* reply was received. If count of *LCP* echo requests goes unanswered, the connection is terminated.
`adaptive`	*Keyword*	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.

3.158.9 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.

3.158.10 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.

3.158.11 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.

3.158.12 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.

3.158.13 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`	*IP address*	Start address of pool.
`size`	*Integer*	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.

3.158.14 sstp-server session-logout

Description Terminate an active or stalled session on the *SSTP* server.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(sstp-server)> **session-logout** ‹*session*›

Arguments

Argument	Value	Description
`session`	*Integer*	Identifier of the SSTP session (can be viewed using the **show sstp-server** command).

Example

```
(sstp-server)> session-logout 6
SstpServer::Manager: Session "6" is terminated.
```

History

Version	Description
4.03	The **sstp-server session-logout** command has been introduced.

3.158.15 sstp-server session-preempt

Description

Enable to preempt VPN sessions when **sstp-server multi-login** option is disabled for the *SSTP* server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(sstp-server)> **session-preempt**

(sstp-server)> **no session-preempt**

Example

```
(sstp-server)> session-preempt
SstpServer::Manager: Enabled session preemption.
```

```
(sstp-server)> no session-preempt
SstpServer::Manager: Disabled session preemption.
```

History

Version	Description
4.03	The **sstp-server session-preempt** command has been introduced.

3.158.16 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	*String*	Username.
address	*IP address*	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.

3.159 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.

3.159.1 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*› [**on** ‹*action*›]]

Arguments

Argument	Value	Description
button	RESET	RESET button.
	WLAN	Wireless LAN button.
action	click	Single click.
	double-click	Double click.
	hold	Push and hold for 3 seconds. RESET button hold is 10 seconds.
	trigger	Toggle switchers position change.
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).
	WifiSwitch	Toggle Wi-Fi on/off.

Example

```
(system)> button WLAN on double-click do WifiGuestApToggle
Core::Peripheral::Manager: "WLAN/double-click" handler set.
```

```
(system)> no button
Core::Peripheral::Manager: All button bindings reset.
```

```
(system)> no button FN1
Core::Peripheral::Manager: "FN1" button bindings reset.
```

History

Version	Description
2.03	The **system button** command has been introduced.

3.159.2 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 (Explorer (KN-1621)).
	hwid	The Model identifier (for example, Explorer (KN-1621)).
	hostname	The System name (for example, Keenetic-Speedster).
	ndns-domain	The keenetic 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.

3.159.3 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	*String*	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.

3.159.4 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`	*`String`*	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.

3.159.5 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.

3.159.6 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: Commited fail-safe ►
configuration changes.
```

History

Version	Description
3.08	The **system configuration fail-safe commit** command has been introduced.

3.159.7 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.

3.159.8 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.

3.159.9 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`	*Integer*	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.

3.159.10 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.
```

History

Version	Description
2.05.B.1	The **system configuration save** command has been introduced.

3.159.11 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›*

Arguments

Argument	Value	Description
`country`	*`String`*	The country code from ISO 3166-1 alpha-2[21].

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.
```

History

Version	Description
4.00	The **system country** command has been introduced.

3.159.12 system debug

Description Enable system debug. By default, setting is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(system)> **debug**

(system)> **no debug**

Example

```
(system)> debug
Core::Debug: System debug enabled.
```

History

Version	Description
2.03	The **system debug** command has been introduced.

3.159.13 system description

Description Set the system description as an arbitrary string. By default, description Explorer (KN-1621) is used.

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

Prefix no Yes

Change settings Yes

[21] https://en.wikipedia.org/wiki/ISO_3166-1_alpha-2

Multiple input No

Synopsis

(system)> **description** ‹*description*›

(system)> **no description**

Arguments

Argument	Value	Description
description	*String*	System description no longer than 256 bytes.

Example

```
(system)> description DEVICE
Core::System::Info: Description saved.
```

```
(system)> no description
Core::System::Info: Description reset to default.
```

History

Version	Description
2.15	The **system description** command has been introduced.

3.159.14 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	*String*	The domain name to assign.

Example

```
(system)> domainname example
Domainname saved.
```

History

Version	Description
2.00	The **system domainname** command has been introduced.

3.159.15 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**

Arguments

Argument	Value	Description
hostname	*String*	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.
```

History

Version	Description
2.00	The **system hostname** command has been introduced.

3.159.16 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	*Schedule*	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.

3.159.17 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**.

3.159.18 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.

3.159.19 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.

3.159.20 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	*IP address*	Remote log server address.
port	*Integer*	Remote log server port.

Example

```
(system)> log server 192.168.1.1:8080
Syslog: server 192.168.1.1:8080 added.
```

History

Version	Description
2.00	The **system log server** command has been introduced.

3.159.21 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*›]

Arguments

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".
```

History

Version	Description
2.04	The **system log suppress** command has been introduced.

3.159.22 system mode

Description Select system operating mode for Explorer.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(system)> **mode** *‹mode›*

Arguments

Argument	Value	Description
mode	router	Main mode (Router Mode).
	extender	Extender mode to extend an existing wireless network by connecting to a main router. In Extender Mode, you can connect the device to the Main Router either via Wi-Fi (wireless connection) or Ethernet cable (wired connection).

Example

```
(system)> mode router
Core::Mode: The system is already in "router" mode.
```

```
(system)> mode extender
Core::Mode: The system switched to "extender" mode, reboot the ►
device to apply the settings.
```

History

Version	Description
2.05	The **system mode** command has been introduced.

3.159.23 system ndss debug

Description Enable debug for the NDSS subsystem. By default, setting is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(system)> **debug**

(system)> **no debug**

Example

```
(system)> ndss debug
Core::Ndss: Debug enabled.
```

```
(system)> no ndss debug
Core::Ndss: Debug disabled.
```

History

Version	Description
5.00	The **system ndss debug** command has been introduced.

3.159.24 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**.

3.159.25 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`	*Integer*	Timeout for reboot, in seconds. If not specified, the reboot will be executed immediately.
`schedule`	*Schedule*	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.

3.159.26 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	*String*	Identifier of the system parameter.
value	*String*	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.

3.159.27 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`	*String*	Threshold value in milliseconds. Can take values in the range from `100` to `100000000` 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.

3.160 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.

3.160.1 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	*IP address*	IP address of the respondent.
source-interface	*Interface*	Name of source-interface.
count	*Integer*	Quantity of requests. If not specified, the command will run until interrupted by the user.
wait-time	*Integer*	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.

3.160.2 tools iperf3

Description

Runs *iPerf3* in client mode to test network bandwidth between a client and an *iPerf3* server, suitable for local networks or internet connections.

Prefix no

No

Change settings

No

Multiple input No

Synopsis

(tools)> **iperf3** ‹*host*› [(**ipv4** | **ipv6**)] [(**tcp** | **udp**)] [**reverse**] [**port** ‹*port*›] [**bitrate** ‹*bitrate*›] [**streams** ‹*streams*›] [**time** ‹*time*› | **bytes** ‹*bytes*›] [**source-interface** ‹*source-interface*› | **source-address** ‹*source-address*›]

Arguments

Argument	Value	Description
host	*String*	The IP address or hostname of the iPerf3 server.
ipv4	*String*	Use the IPv4 protocol version.
ipv6	*String*	Use the IPv6 protocol version.
tcp	*Keyword*	Use the TCP transport protocol.
udp	*Keyword*	Use the UDP transport protocol.
reverse	*Keyword*	The mode, when the server sends data to the client.
port	*Integer*	The server port to connect (default: 5201).
bitrate	*Integer*	The bitrate in bits per second (bit/s).
streams	*Integer*	The number of simultaneous streams to use.
time	*Integer*	The duration in seconds.
bytes	*Integer*	The total number of bytes to transmit.
source-interface	*Interface*	The source interface for connections to the server. Full interface name or an alias. You can see the list of available interfaces with help of **interface** [Tab] command.
source-address	*IP address*	The source IP address for connections to the server.

Example

```
(tools)> iperf3 my.example.com ipv4 tcp reverse port 5203 streams ►
10 time 60 source-interface ISP
starting iperf3 client to server my.example.com...
Connecting to host my.example.com, port 5203
Reverse mode, remote host my.example.com is sending
[  5] local 192.168.2.4 port 54856 connected to 10.10.10.5 port ►
5203
[  7] local 192.168.2.4 port 54866 connected to 10.10.10.5 port ►
5203
[  9] local 192.168.2.4 port 54882 connected to 10.10.10.5 port ►
5203
[ 11] local 192.168.2.4 port 54896 connected to 10.10.10.5 port ►
5203
[ 13] local 192.168.2.4 port 54902 connected to 10.10.10.5 port ►
5203
[ 15] local 192.168.2.4 port 54910 connected to 10.10.10.5 port ►
5203
```

```
[ 17] local 192.168.2.4 port 54912 connected to 10.10.10.5 port ►
5203
[ 19] local 192.168.2.4 port 54914 connected to 10.10.10.5 port ►
5203
[ 21] local 192.168.2.4 port 54918 connected to 10.10.10.5 port ►
5203
[ 23] local 192.168.2.4 port 54926 connected to 10.10.10.5 port ►
5203
[ ID] Interval           Transfer     Bitrate
[  5]   0.00-1.00   sec  4.12 MBytes  34.6 Mbits/sec
[  7]   0.00-1.00   sec  4.12 MBytes  34.6 Mbits/sec
[  9]   0.00-1.00   sec  3.00 MBytes  25.1 Mbits/sec
[ 11]   0.00-1.00   sec  3.88 MBytes  32.5 Mbits/sec
[ 13]   0.00-1.00   sec  4.75 MBytes  39.8 Mbits/sec
[ 15]   0.00-1.00   sec  1.12 MBytes  9.43 Mbits/sec
[ 17]   0.00-1.00   sec  4.75 MBytes  39.8 Mbits/sec
[ 19]   0.00-1.00   sec  1.75 MBytes  14.7 Mbits/sec
[ 21]   0.00-1.00   sec  3.25 MBytes  27.2 Mbits/sec
[ 23]   0.00-1.00   sec   512 KBytes  4.19 Mbits/sec
[SUM]   0.00-1.00   sec  31.2 MBytes   262 Mbits/sec
- - - - - - - - - - - - - - - - - - - - - - - - -
[SUM]   0.00-60.00  sec  2.08 GBytes   297 Mbits/sec  8254     ►
        sender
[SUM]   0.00-60.00  sec  2.03 GBytes   291 Mbits/sec          ►
       receiver
iperf Done.
```

```
(tools)> iperf3 my.example.com ipv4 tcp port 5203 streams 10 ►
time 60 source-interface ISP
starting iperf3 client to server my.example.com...
Connecting to host my.example.com, port 5203
[  5] local 192.168.2.4 port 55062 connected to 10.10.10.5 port ►
5203
[  7] local 192.168.2.4 port 55074 connected to 10.10.10.5 port ►
5203
[  9] local 192.168.2.4 port 55076 connected to 10.10.10.5 port ►
5203
[ 11] local 192.168.2.4 port 55078 connected to 10.10.10.5 port ►
5203
[ 13] local 192.168.2.4 port 55094 connected to 10.10.10.5 port ►
5203
[ 15] local 192.168.2.4 port 55098 connected to 10.10.10.5 port ►
5203
[ 17] local 192.168.2.4 port 55102 connected to 10.10.10.5 port ►
5203
[ 19] local 192.168.2.4 port 55104 connected to 10.10.10.5 port ►
5203
[ 21] local 192.168.2.4 port 55106 connected to 10.10.10.5 port ►
5203
[ 23] local 192.168.2.4 port 55120 connected to 10.10.10.5 port ►
5203
[ ID] Interval           Transfer     Bitrate         Retr  Cwnd
[  5]   0.00-1.00   sec  18.6 MBytes   156 Mbits/sec    1    304 ►
KBytes
```

```
[  7]   0.00-1.00   sec  10.5 MBytes  88.0 Mbits/sec    4    129 ►
KBytes
[  9]   0.00-1.00   sec  2.50 MBytes  20.9 Mbits/sec    9   33.9 ►
KBytes
[ 11]   0.00-1.00   sec  5.75 MBytes  48.2 Mbits/sec    1    110 ►
KBytes
[ 13]   0.00-1.00   sec  6.62 MBytes  55.5 Mbits/sec    3   89.1 ►
KBytes
[ 15]   0.00-1.00   sec  6.88 MBytes  57.6 Mbits/sec   40   60.8 ►
KBytes
[ 17]   0.00-1.00   sec  4.00 MBytes  33.5 Mbits/sec   32   29.7 ►
KBytes
[ 19]   0.00-1.00   sec  4.12 MBytes  34.6 Mbits/sec   13   55.1 ►
KBytes
[ 21]   0.00-1.00   sec  9.75 MBytes  81.7 Mbits/sec    1    170 ►
KBytes
[ 23]   0.00-1.00   sec  9.88 MBytes  82.7 Mbits/sec    4    113 ►
KBytes
[SUM]   0.00-1.00   sec  78.6 MBytes   659 Mbits/sec  108
- - - - - - - - - - - - - - - - - - - - - - - - -
[SUM]   0.00-60.00  sec  3.78 GBytes   541 Mbits/sec  7312     ►
        sender
[SUM]   0.00-60.00  sec  3.77 GBytes   539 Mbits/sec          ►
       receiver
iperf Done.
```

```
(tools)> iperf3 my.example.com ipv6 tcp reverse port 5002 streams ►
10 time 60 source-interface ISP
starting iperf3 client to server my.example.com...
Connecting to host my.example.com, port 5002
Reverse mode, remote host my.example.com is sending
[  5] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51220 ►
connected to 2001:db8::21  port 5002
[  7] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51236 ►
connected to 2001:db8::21  port 5002
[  9] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51240 ►
connected to 2001:db8::21  port 5002
[ 11] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51244 ►
connected to 2001:db8::21 port 5002
[ 13] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51248 ►
connected to 2001:db8::21 port 5002
[ 15] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51252 ►
connected to 2001:db8::21 port 5002
[ 17] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51256 ►
connected to 2001:db8::21 port 5002
[ 19] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51272 ►
connected to 2001:db8::21 port 5002
[ 21] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51288 ►
connected to 2001:db8::21 port 5002
[ 23] local 2001:db8:2:612:52ff:20ff:fe00:1e87 port 51298 ►
connected to 2001:db8::21 port 5002
[ ID] Interval           Transfer     Bitrate
[  5]   0.00-1.00   sec  3.50 MBytes  29.3 Mbits/sec
[  7]   0.00-1.00   sec  2.25 MBytes  18.9 Mbits/sec
```

```
[  9]   0.00-1.00   sec  9.25 MBytes  77.5 Mbits/sec
[ 11]   0.00-1.00   sec  3.50 MBytes  29.3 Mbits/sec
[ 13]   0.00-1.00   sec  9.25 MBytes  77.5 Mbits/sec
[ 15]   0.00-1.00   sec  2.62 MBytes  22.0 Mbits/sec
[ 17]   0.00-1.00   sec  3.75 MBytes  31.4 Mbits/sec
[ 19]   0.00-1.00   sec  2.25 MBytes  18.9 Mbits/sec
[ 21]   0.00-1.00   sec  1.25 MBytes  10.5 Mbits/sec
[ 23]   0.00-1.00   sec  1.75 MBytes  14.7 Mbits/sec
[SUM]   0.00-1.00   sec  39.4 MBytes   330 Mbits/sec
- - - - - - - - - - - - - - - - - - - - - - - - -
[SUM]   0.00-60.05  sec  3.30 GBytes   472 Mbits/sec  2400     ►
       sender
[SUM]   0.00-60.00  sec  3.28 GBytes   470 Mbits/sec          ►
      receiver
iperf Done.
```

```
(tools)> iperf3 my.example.com ipv6 tcp port 5002 streams 10 ►
time 60 source-interface ISP
starting iperf3 client to server my.example.com...
Connecting to host my.example.com, port 5203
[  5] local 192.168.2.4 port 55062 connected to 10.10.10.5 port ►
5203
[  7] local 192.168.2.4 port 55074 connected to 10.10.10.5 port ►
5203
[  9] local 192.168.2.4 port 55076 connected to 10.10.10.5 port ►
5203
[ 11] local 192.168.2.4 port 55078 connected to 10.10.10.5 port ►
5203
[ 13] local 192.168.2.4 port 55094 connected to 10.10.10.5 port ►
5203
[ 15] local 192.168.2.4 port 55098 connected to 10.10.10.5 port ►
5203
[ 17] local 192.168.2.4 port 55102 connected to 10.10.10.5 port ►
5203
[ 19] local 192.168.2.4 port 55104 connected to 10.10.10.5 port ►
5203
[ 21] local 192.168.2.4 port 55106 connected to 10.10.10.5 port ►
5203
[ 23] local 192.168.2.4 port 55120 connected to 10.10.10.5 port ►
5203
[ ID] Interval           Transfer     Bitrate         Retr  Cwnd
[  5]   0.00-1.00   sec  18.6 MBytes   156 Mbits/sec    1    304 ►
KBytes
[  7]   0.00-1.00   sec  10.5 MBytes  88.0 Mbits/sec    4    129 ►
KBytes
[  9]   0.00-1.00   sec  2.50 MBytes  20.9 Mbits/sec    9   33.9 ►
KBytes
[ 11]   0.00-1.00   sec  5.75 MBytes  48.2 Mbits/sec    1    110 ►
KBytes
[ 13]   0.00-1.00   sec  6.62 MBytes  55.5 Mbits/sec    3   89.1 ►
KBytes
[ 15]   0.00-1.00   sec  6.88 MBytes  57.6 Mbits/sec   40   60.8 ►
KBytes
[ 17]   0.00-1.00   sec  4.00 MBytes  33.5 Mbits/sec   32   29.7 ►
```

```
KBytes
[ 19]   0.00-1.00   sec  4.12 MBytes  34.6 Mbits/sec   13   55.1 ►
KBytes
[ 21]   0.00-1.00   sec  9.75 MBytes  81.7 Mbits/sec    1    170 ►
KBytes
[ 23]   0.00-1.00   sec  9.88 MBytes  82.7 Mbits/sec    4    113 ►
KBytes
[SUM]   0.00-1.00   sec  78.6 MBytes   659 Mbits/sec  108
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
[SUM]   0.00-60.00  sec  1.71 GBytes   245 Mbits/sec  1002     ►
        sender
[SUM]   0.00-60.08  sec  1.68 GBytes   240 Mbits/sec           ►
       receiver
iperf Done.
```

```
(tools)> iperf3 my.example.com ipv4 tcp reverse port 5201 bitrate ►
10000000 streams 4 time 30 source-interface ISP
starting iperf3 client to server my.example.com...
Connecting to host my.example.com, port 5201
Reverse mode, remote host my.example.com is sending
[  5] local 192.168.2.4 port 57068 connected to 10.10.10.5 port ►
5201
[  7] local 192.168.2.4 port 57076 connected to 10.10.10.5 port ►
5201
[  9] local 192.168.2.4 port 57090 connected to 10.10.10.5 port ►
5201
[ 11] local 192.168.2.4 port 57092 connected to 10.10.10.5 port ►
5201
[ ID] Interval           Transfer     Bitrate
[  5]   0.00-1.00   sec  1.00 MBytes  8.38 Mbits/sec
[  7]   0.00-1.00   sec  1.00 MBytes  8.38 Mbits/sec
[  9]   0.00-1.00   sec  1.00 MBytes  8.38 Mbits/sec
[ 11]   0.00-1.00   sec  1.00 MBytes  8.38 Mbits/sec
[SUM]   0.00-1.00   sec  4.00 MBytes  33.5 Mbits/sec
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
[SUM]   0.00-30.00  sec   143 MBytes  40.1 Mbits/sec   74      ►
       sender
[SUM]   0.00-30.00  sec   142 MBytes  39.8 Mbits/sec           ►
       receiver
iperf Done.
```

```
(tools)> iperf3 my.example.com ipv4 tcp  port 5201 streams 4 ►
bytes 1000000 source-interface ISP
starting iperf3 client to server my.example.com...
Connecting to host my.example.com, port 5201
[  5] local 192.168.2.4 port 58344 connected to 10.10.10.5 port ►
5201
[  7] local 192.168.2.4 port 58354 connected to 10.10.10.5 port ►
5201
[  9] local 192.168.2.4 port 58370 connected to 10.10.10.5 port ►
5201
[ 11] local 192.168.2.4 port 58372 connected to 10.10.10.5 port ►
5201
[ ID] Interval           Transfer     Bitrate         Retr  Cwnd
```

```
[  5]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec    0    106 ►
KBytes
[  7]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec    0    106 ►
KBytes
[  9]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec    0    106 ►
KBytes
[ 11]   0.00-1.00   sec   256 KBytes  2.10 Mbits/sec    0    100 ►
KBytes
[SUM]   0.00-1.00   sec  1.38 MBytes  11.5 Mbits/sec    0
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
[ ID] Interval           Transfer     Bitrate         Retr
[  5]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec    0      ►
      sender
[  5]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec          ►
       receiver
[  7]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec    0      ►
      sender
[  7]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec          ►
       receiver
[  9]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec    0      ►
      sender
[  9]   0.00-1.00   sec   384 KBytes  3.14 Mbits/sec          ►
       receiver
[ 11]   0.00-1.00   sec   256 KBytes  2.09 Mbits/sec    0      ►
      sender
[ 11]   0.00-1.00   sec   256 KBytes  2.09 Mbits/sec          ►
       receiver
[SUM]   0.00-1.00   sec  1.38 MBytes  11.5 Mbits/sec    0      ►
       sender
[SUM]   0.00-1.00   sec  1.38 MBytes  11.5 Mbits/sec          ►
       receiver
iperf Done.
```

History

Version	Description
5.00	The **tools iperf3** command has been introduced.

3.160.3 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›*] [**packetsize** *‹packetsize›*] [**sequence-id** *‹sequence-id›*] [**source** (*‹source-interface›* | *‹source-address›*)] [**tos** *‹tos›*] [**ttl** *‹ttl›*]

Arguments

Argument	Value	Description
host	*String*	Domain name or host IP address.
count	*Integer*	Quantity of ICMP Echo Requests. If not specified, the command will run until interrupted by the user.
packetsize	*Integer*	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	*Integer*	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	*Integer*	Type Of Service. By default, 0 value is used. Can take values in the range from 0 to 63 inclusively.
ttl	*Integer*	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.

3.160.4 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›*] [**packetsize** *‹packetsize›*] [**sequence-id** *‹sequence-id›*] [**source** (*‹source-interface›* | *‹source-address›*)] [**tos** *‹tos›*] [**ttl** *‹ttl›*]

Arguments

Argument	Value	Description
`host`	*String*	Domain name or host IPv6-address.
`count`	*Integer*	Quantity of ICMPv6 Echo Requests. If not specified, the command will run until interrupted by the user.

Argument	Value	Description
packetsize	*Integer*	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	*Integer*	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	*Integer*	Type Of Service. By default, 0 value is used. Can take values in the range from 0 to 63 inclusively.
ttl	*Integer*	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.

3.160.5 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›*] [**packetsize** *‹packetsize›*] [**max-ttl** *‹max-ttl›*] [**port** *‹port›*] [**source-address** *‹source-address›*] [**source-interface** *‹source-interface›*] [**type** *‹type›*] [**tos** *‹tos›*]

Arguments

Argument	Value	Description
`host`	*String*	Name of the target host.
`count`	*Integer*	Number of probe packets per hop. Default value — 3. Value must be in the range [1;10].
`interval`	*Integer*	Time in seconds between sending packets. Default value — 0. Value must be in the range [0;15].
`wait-time`	*Integer*	Time to wait for a response to a probe (in seconds). Default value — 1. Value must be in the range [1;15].

Argument	Value	Description
packetsize	*Integer*	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	*Integer*	Maximum number of hops (max time-to-live value) traceroute will probe. Default value — 30. Value must be in the range [1;255].
port	*Integer*	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	*String*	Address of the outgoing interface.
source-interface	*String*	Interface to be used as the source interface in outgoing probe packets.
type	tcp	*TCP* protocol.
	udp	*UDP* protocol. Used by default.
	icmp	*ICMP* protocol.
tos	*Integer*	Type Of Service. Default value — 0. Value must be in the range [0;255].

Example

```
(tools)> traceroute example.com count 5 interval 5
starting traceroute to example.com...
traceroute to example.com (203.0.113.113), 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.

3.161 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.

3.161.1 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	*Integer*	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.

3.161.2 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`	*Integer*	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.

3.161.3 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`	*Interface*	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.

3.161.4 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`	*Integer*	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.

3.161.5 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	*Integer*	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.

3.161.6 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	*Integer*	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.

3.162 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`	*Interface*	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 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	*String*	Tne user name.

History

Version	Description
2.00	The **user** command has been introduced.

3.163.1 user password generate

Description

Start generating a new random password (without saving) for the user account.

Returns a string — a random password consisting of uppercase and lowercase ASCII letters and numbers with a length of 15 characters.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

(config-user)> **password generate**

Example

```
(config-user)> password generate

         password: RvHQYN6iaQdhYDG
```

History

Version	Description
4.03	The **user password generate** command has been introduced.

3.163.2 user password md5

Description Set the MD5 hash (Message-Digest Algorithm 5) password.

Command with **no** prefix removes the MD5 hash password.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-user)> **password md5** *‹hash›*

(config-user)> **no password md5**

Arguments

Argument	Value	Description
hash	*String*	MD5 hash value.

Example

```
(config-user)> password md5 5d505c920ed64c8ff3dc4bfefd4dc262
Core::Authenticator: Md5 password has been set for user "test2".
```

```
(config-user)> password md5 5d505c920ed64c8ff3dc4bfefd4dc262
Core::Authenticator: User "test2" md5 password deleted.
```

History

Version	Description
4.03	The **user password md5** command has been introduced.

3.163.3 user password nt

Description Set the NT hash (NT LAN Manager or NTLM hash) password.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config-user)> **password nt** *‹hash›*

(config-user)> **no password nt**

Arguments

Argument	Value	Description
hash	*String*	NT hash value.

Example

```
(config-user)> password nt 5d505c920ed64c8ff3dc4bfefd4dc262
Core::Authenticator: Nt password has been set for user "test2".
```

```
(config-user)> no password nt
Core::Authenticator: User "test2" nt password deleted.
```

History

Version	Description
4.03	The **user password nt** command has been introduced.

3.163.4 user password plain

Description

Set the plain text password.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(config-user)> **password plain** *‹password›*

(config-user)> **no password plain**

Arguments

Argument	Value	Description
password	*String*	Password for authentication. Password length can be from 8 to 64 characters. It is recommended to use a combination of uppercase and lowercase letters, numbers, and special characters (**!, @, $, %, ^, &, *, +, #)**).

Example

```
(config-user)> password plain 12bq23BN12-.89=-
Core::Authenticator: Password set has been changed for user ►
"test2".
```

```
(config-user)> no password plain
Core::Authenticator: Passwords have been reset for a user "test2".
```

History

Version	Description
4.03	The **user password plain** command has been introduced.

3.163.5 user password validate

Description

Verification of password compliance with requirements (e.g., length, acceptable characters, etc.).

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

(config-user)> **password validate** *‹value›*

Arguments

Argument	Value	Description
`value`	*String*	Value of the password. A minimum password length of 8 characters is required. The recommended password length is 15 characters.

Example

```
(config-user)> password validate Cg5ek6vKfuLNXZ8

         strength: good
```

```
(config-user)> password validate Cg5ek6vKfuLN

         strength: fair

           length:
             required: 8
          recommended: 15
```

History

Version	Description
4.03	The **user password validate** command has been introduced.

3.163.6 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. If you use no argument, the entire list of tags will be cleared for the user.

Note: The `admin` account can not be untagged `cli`.

The `admin` account can not be untagged `http` if device acts as MWS Extender.

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).
	`manager`	Access for a user with limited administrator rights.
	`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.
	`vpn-oc`	Connection to an integrated OpenConnect server.
	`opt`	Access to services managed by OptWare.
	`sftp`	Access to SFTP file server.
	`sstp`	Connection to an integrated SSTP server.

Argument	Value	Description
	torrent	Access to the BitTorrent client GUI.
	vpn	Connection to an integrated PPTP server.
	webdav	Access to WebDAV file server.

Example

```
(config-user)> tag cli
Core::Authenticator: User "test" tagged with "cli".

(config-user)> tag manager
Core::Authenticator: User "test" tagged with "manager".

(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 vpn-oc
Core::Authenticator: User "test" tagged with "vpn-oc".

(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.

(config-user)> no tag
Core::Authenticator: User "test" tags 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.
4.02	The **vpn-oc** tag has been added.
5.00	The **manager** tag has been added.

3.164 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`**

History

Version	Description
2.04	The **vpn-server** command has been introduced.

3.164.1 vpn-server debug

Description Enable debug mode for PPTP server. Detailed information about the progress of the PPTP client connection to the PPTP server 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

Synopsis

(vpn-server)> **debug**

(vpn-server)> **no debug**

Example

```
(vpn-server)> debug
VpnServer::Manager: Enabled debug.
```

```
(vpn-server)> no debug
VpnServer::Manager: Disabled debug.
```

History

Version	Description
4.03	The **vpn-server debug** command has been introduced.

3.164.2 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›*]

Arguments

Argument	Value	Description
address	*IP address*	Network client address.
mask	*IP-mask*	Network client mask. There are two ways to enter the mask: the canonical form (for

Argument	Value	Description
		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.

3.164.3 vpn-server dns-servers

Description

Set the *DNS* server that is assigned to clients connecting to the PPTP server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(vpn-server)> **dns-servers** ‹*dns1*› [‹*dns2*›]

(vpn-server)> **no dns-servers**

Arguments

Argument	Value	Description
dns1	*IP address*	Address of primary DNS server.
dns2	*IP address*	Address of secondary DNS server.

Example

```
(vpn-server)> dns-servers 1.1.1.1
VpnServer::Manager: Set custom DNS server "1.1.1.1".
```

```
(vpn-server)> dns-servers 1.1.1.1 8.8.8.8
VpnServer::Manager: Set custom DNS servers "1.1.1.1" and ►
"8.8.8.8".
```

```
(vpn-server)> no dns-servers
VpnServer::Manager: Disabled custom DNS servers.
```

History

Version	Description
5.00	The **vpn-server dns-servers** command has been introduced.

3.164.4 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.

3.164.5 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.

3.164.6 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`	*Integer*	Interval between sending *LCP* echo, in seconds. If within the specified time interval there is no *LCP* echo request from the remote location, the same request will be sent there asking for response *LCP* reply.

Argument	Value	Description
`count`	*Integer*	The number of consecutive requests *LCP* echo sent, for which no response *LCP* reply was received. If count of *LCP* echo requests goes unanswered, the connection is terminated.
`adaptive`	*Keyword*	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.

3.164.7 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`	*Integer*	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`	*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 120.
`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 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.

3.164.8 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.

3.164.9 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.

3.164.10 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*	*MRU* 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.

3.164.11 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	*Integer*	*MTU* 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.

3.164.12 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.

3.164.13 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`	*IP address*	Start address of pool.
`size`	*Integer*	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 172.16.1.22 20
VpnServer::Manager: Configured pool range 172.16.1.22 to ►
172.16.1.41.
```

```
(vpn-server)> no pool-range
VpnServer::Manager: Reset pool range.
```

History

Version	Description
2.04	The **vpn-server pool-range** command has been introduced.

3.164.14 vpn-server session-logout

Description Terminate an active or stalled session on the VPN server.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

(vpn-server)> **session-logout** *‹session›*

Arguments

Argument	Value	Description
session	*Integer*	Identifier of the PPTP session (can be viewed using the **show vpn-server** command).

Example

```
(vpn-server)> session-logout 1
VpnServer::Manager: Session "1" is terminated.
```

History

Version	Description
4.03	The **vpn-server session-logout** command has been introduced.

3.164.15 vpn-server session-preempt

Description

Enable to preempt VPN sessions when **vpn-server multi-login** option is disabled for the PPTP server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

(vpn-server)> **session-preempt**

(vpn-server)> **no session-preempt**

Example

```
(vpn-server)> session-preempt
VpnServer::Manager: Enabled sessions preemption.
```

```
(vpn-server)> no session-preempt
VpnServer::Manager: Disabled session preemption.
```

History

Version	Description
4.03	The **vpn-server session-preempt** command has been introduced.

3.164.16 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	*String*	Username.
address	*IP address*	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.

3.165 wireguard-server interface

Description Bind *WireGuard* server to the specified interface. By default, the Home interface is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

(config)> **wireguard-server interface** *‹interface›*

(config)> **no wireguard-server 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

```
(config)> wireguard-server interface Bridge1
Wireguard::Server: Bound to Bridge1.
```

```
(config)> no wireguard-server interface
Wireguard::Server: Reset interface binding.
```

History

Version	Description
5.00	The **wireguard-server interface** command has been introduced.

Glossary

Address and Control Field Compression	*LCP* 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.
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 *Password Authentication Protocol*.
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.
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 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: • *dynamic allocation*: 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).
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 *IKE* 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 *IPsec* 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 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].

[1] https://en.wikipedia.org/wiki/IPv6#Stateless_address_autoconfiguration_(SLAAC)
[2] https://tools.ietf.org/html/rfc8484
[3] https://tools.ietf.org/html/rfc7858
[4] https://tools.ietf.org/html/rfc8310

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 *IPsec* 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.
Embedded Subscriber Identity Module	is a digital SIM embedded in an eUICC chip that stores and manages mobile operator profiles without requiring a physical SIM card.
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 *Domain Name System*. 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 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.

HTTP Proxy	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.
Idempotence	is the property of certain operations in computer science, that they can be applied multiple times without changing the result beyond the initial application.
Inter-Access Point Protocol	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.
Internet Control Message Protocol	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.
Internet Control Message Protocol version 6	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 4443[5].
Internet Group Management Protocol	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.
Internet Key Exchange	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.
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 *Point-to-Point Protocol* (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

[5] https://datatracker.ietf.org/doc/html/rfc4443

	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 *Internet Protocol* (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.
iPerf3	is a network performance measurement tool used to evaluate throughput between two endpoints using a client–server model. It supports TCP and UDP testing, allowing measurement of data transfer rates, latency, packet loss, and other network characteristics. Commonly used for performance diagnostics in both local and wide area networks.
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 *Point-to-Point* (PPP) link. IPv6CP uses the same packet exchange mechanism as the *Link Control Protocol*. 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 *Point-to-Point Protocol* (PPP). Before establishing communications over 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. LCP packets are divided into three classes: • 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	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. 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).
Low-Density Parity-Check	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.
Maximum Receive Unit	is the maximum size (in bytes) of the frame, which can be received at the data link layer of communication protocol.
Maximum Segment Size	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.
Maximum Transmission Unit	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.
Microsoft Point-to-Point Encryption	encrypts data in *Point-to-Point Protocol* 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 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.
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 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.
OpenConnect	is a free and open-source cross-platform multi-protocol virtual private network (VPN) client software which implement secure point-to-point connections.
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.
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 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.
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].
Simple Service Discovery Protocol	is a network protocol for advertising and discovering network services and devices in a local network without any prior configuration. SSDP is the discovery layer of Universal Plug and Play (UPnP).
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.
Transmission Control Protocol	is a core protocol of the *Internet Protocol* 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 *Internet Protocol* 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

[8] https://www.rfc-editor.org/rfc/rfc4330

	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.
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.
Virtual Router Redundancy Protocol	is a computer networking protocol that provides automatic assignment of available IP routers to participating hosts. This increases routing path availability via automatic default gateway selection on IP subnetworks.
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 web server authentication and SSL encryption for HTTPS using the default TCP port 443.
Web Proxy Auto-Discovery Protocol	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.
Web Services Dynamic Discovery	is a multicast discovery protocol for locating services and devices in a local network. WS-Discovery is an OASIS standard based on SOAP-over-UDP.
WireGuard	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.
Wi-Fi Multimedia	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). 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.
Wi-Fi Protected Access	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. 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. WPA Enterprise is a protocol-based authentication mode IEEE 802.1X using an external authentication server RADIUS and local client Supplicant.
Wi-Fi Protected Setup	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.
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	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. 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.
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	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.

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.

The ZeroTier world is controlled by two types of identifier: 40-bit/10-digit ZeroTier addresses and 64-bit/16-digit *network IDs*. 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.

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.

A

Interface Hierarchy

Figure A.1. Core interfaces

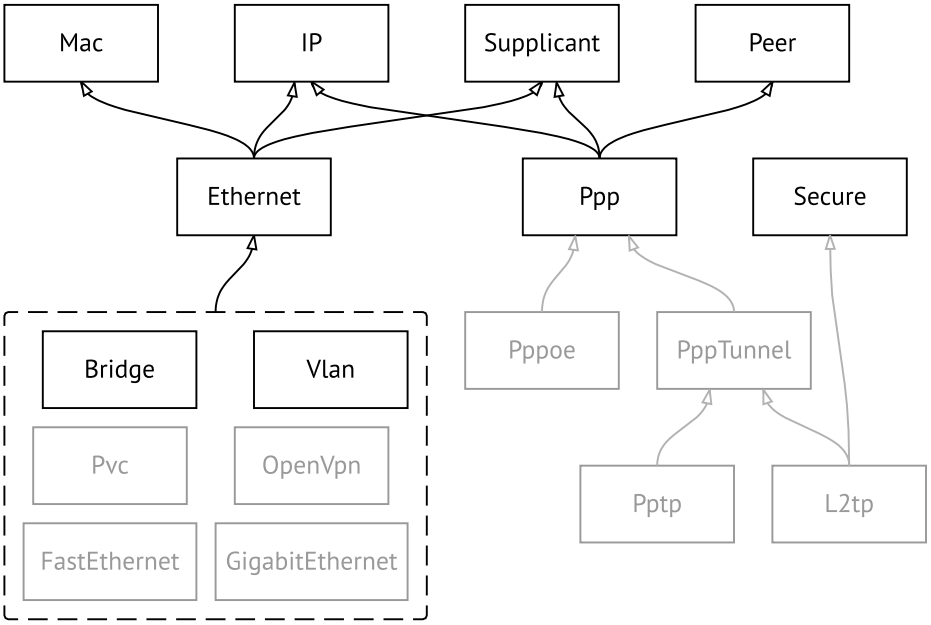


Figure A.2. Tunnel interfaces

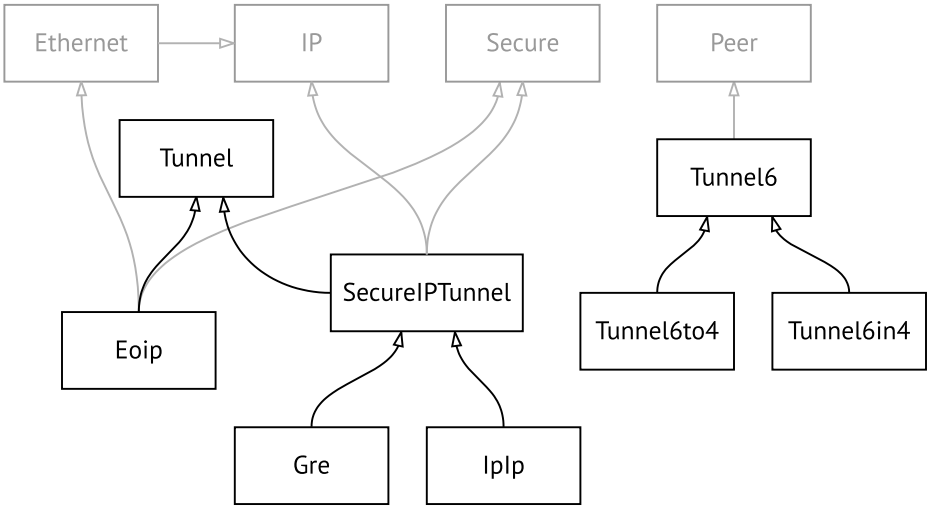


Figure A.3. USB interfaces

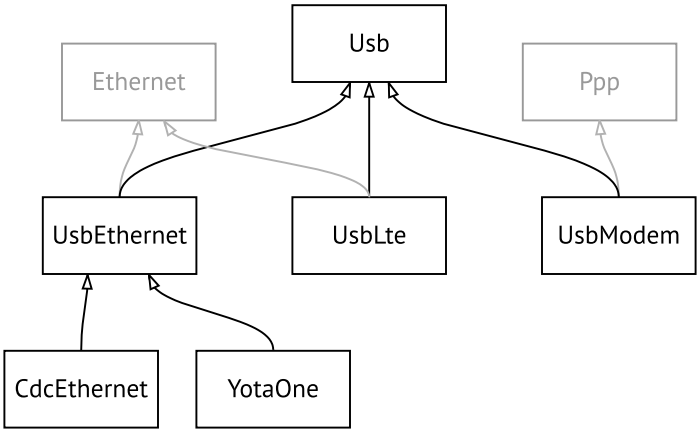
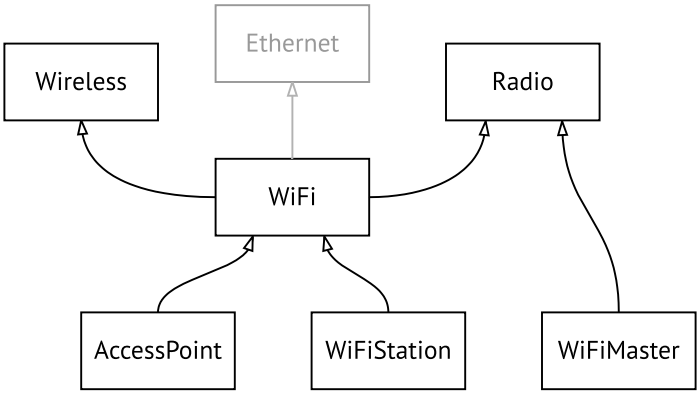


Figure A.4. Wi-Fi interfaces



B

HTTP API

B.1 REST Core Interface

Explorer HTTP API lets you develop a custom application, that will access Explorer 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 Explorer 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 734.

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 734

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 735 and Section B.1.3.3 on page 735

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 3.48.6 on page 333 to see how “interface” and “access” parameters are mentioned in the Arguments table.

[1] In 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 3.26 on page 141, 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": "Explorer (KN-1621)",
   "hw_version": "10128000",
   "hw_id": "KN-1621",
   "device": "Explorer",
   "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.

Explorer 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 Explorer 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 Explorer.

```
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 37
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 37.

argument Name of the argument. Available arguments for each command are listed in Chapter 3 on page 37. 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 33.

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>
```

C

SNMP MIB

Management Information Bases (MIBs) are read-only.

The following MIBs are supported:

C.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

C.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::ifHCOutOctets
- IF-MIB::ifHCOutUcastPkts
- IF-MIB::ifHCOutMulticastPkts
- IF-MIB::ifHCOutBroadcastPkts
- IF-MIB::ifLinkUpDownTrapEnable
- IF-MIB::ifHighSpeed
- IF-MIB::ifPromiscuousMode
- IF-MIB::ifConnectorPresent
- IF-MIB::ifAlias

- IF-MIB::ifCounterDiscontinuityTime

C.3 IP-MIB

OID: 1.3.6.1.2.1.6

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

C.4 UDP-MIB

OID: 1.3.6.1.2.1.7

The following data elements are supported:

- UDP-MIB::udpInDatagrams
- UDP-MIB::udpNoPorts
- UDP-MIB::udpInErrors
- UDP-MIB::udpOutDatagrams
- UDP-MIB::udpHCInDatagrams
- UDP-MIB::udpHCOutDatagrams

C.5 HOST-RESOURCES-MIB

OID: 1.3.6.1.2.1.25

The following data elements are supported:

- HOST-RESOURCES-MIB::hrSystemUptime

C.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

C.7 MOBILE-INTERFACE-METRICS-MIB

OID: 1.3.6.1.4.1.9.9.661.1.3.4.1.1.1.7006

The following data elements are supported:

- RSSI (Received Signal Strength Indicator)

OID: 1.3.6.1.4.1.9.9.817.1.1.1.1.1.1.7006

The following data elements are supported:

- RSRP (Reference Signal Received Power)

OID: 1.3.6.1.4.1.9.9.817.1.1.1.1.1.2.7006

The following data elements are supported:

- RSRQ (Reference Signal Received Quality)

OID: 1.3.6.1.4.1.9.9.817.1.1.1.1.1.3.7006

The following data elements are supported:

- SNR (Signal-to-Noise Ratio)

D

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)

D.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	

D.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	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	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	

D.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	cypher esp-aes-128
	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	

D.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	

D.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	

D.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	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	3DES-CBC/SHA1/MODP1024	cypher esp-3des
	3DES-CBC/SHA1	cypher esp-aes-256
	AES-256-CBC/SHA1	cypher esp-aes-128
	AES-128-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	
	AES-128-CBC/SHA1/MODP1024	

D.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

D.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

D.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

D.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