

KEENETIC RACER

AX3000 Mesh Wi-Fi 6 Gigabit Router/Extender
with Two Gigabit Ethernet Ports

Command Reference Guide

Model	Racer (KN-4010)
OS Version	5.1
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Preface

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

2 Organization

This manual covers the following topics:

Introduction to the CLI	Describes how to use the Racer 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 Racer device.

3 Document Conventions

Command descriptions use the following conventions:

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

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

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

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

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

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

Contents Overview

Preface 3

Product Overview 29

Introduction to the CLI 31

Command Reference 37

Glossary 711

Interface Hierarchy 725

HTTP API 727

SNMP MIB 735

IPsec Encryption Levels 741

Table of Contents

Preface	3
1 Readership	3
2 Organization	3
3 Document Conventions	3
Table of Contents	5
Chapter 1	
Product Overview	29
1.1 Hardware Configuration	29
Chapter 2	
Introduction to the CLI	31
2.1 Enter commands in the CLI	31
2.1.1 Entering a group	32
2.2 Getting Help and auto-completion	32
2.3 Prefix no	33
2.4 Multiple input	34
2.5 Saving to startup settings	34
2.6 Delayed restart	35
Chapter 3	
Command Reference	37
3.1 Core commands	37
3.1.1 copy	37
3.1.2 erase	37
3.1.3 exit	38
3.1.4 grep	38
3.1.5 ls	41
3.1.6 mkdir	42
3.1.7 more	42
3.2 access-list	43
3.2.1 access-list auto-delete	44
3.2.2 access-list deny	44
3.2.3 access-list permit	46
3.2.4 access-list rule	49
3.3 cloud control2 security-level	50
3.4 components	50
3.4.1 components auto-update channel	51

3.4.2	components auto-update disable	51
3.4.3	components auto-update schedule	52
3.4.4	components check-update	53
3.4.5	components commit	54
3.4.6	components install	54
3.4.7	components list	55
3.4.8	components preset	56
3.4.9	components preview	57
3.4.10	components remove	57
3.4.11	components validity-period	58
3.5	crypto engine	59
3.6	crypto ike key	59
3.7	crypto ike mtu	60
3.8	crypto ike nat-keepalive	61
3.9	crypto ike policy	62
3.9.1	crypto ike policy lifetime	62
3.9.2	crypto ike policy mode	63
3.9.3	crypto ike policy negotiation-mode	64
3.9.4	crypto ike policy proposal	64
3.10	crypto ike proposal	65
3.10.1	crypto ike proposal aead	66
3.10.2	crypto ike proposal dh-group	66
3.10.3	crypto ike proposal encryption	67
3.10.4	crypto ike proposal integrity	68
3.10.5	crypto ike proposal prf	69
3.11	crypto ipsec incompatible	70
3.12	crypto ipsec profile	71
3.12.1	crypto ipsec profile authentication-local	71
3.12.2	crypto ipsec profile authentication-remote	72
3.12.3	crypto ipsec profile dpd-clear	73
3.12.4	crypto ipsec profile dpd-interval	73
3.12.5	crypto ipsec profile identity-local	74
3.12.6	crypto ipsec profile match-identity-remote	75
3.12.7	crypto ipsec profile mode	76
3.12.8	crypto ipsec profile policy	77
3.12.9	crypto ipsec profile preshared-key	78
3.12.10	crypto ipsec profile xauth	78
3.12.11	crypto ipsec profile xauth-identity	79
3.12.12	crypto ipsec profile xauth-password	80
3.13	crypto ipsec rekey delete-delay	80
3.14	crypto ipsec rekey make-before	81
3.15	crypto ipsec transform-set	82
3.15.1	crypto ipsec transform-set aead	82

3.15.2	crypto ipsec transform-set cypher	83
3.15.3	crypto ipsec transform-set dh-group	84
3.15.4	crypto ipsec transform-set hmac	84
3.15.5	crypto ipsec transform-set lifetime	85
3.16	crypto map	86
3.16.1	crypto map connect	87
3.16.2	crypto map enable	87
3.16.3	crypto map fallback-check-interval	88
3.16.4	crypto map force-encaps	88
3.16.5	crypto map l2tp-server dhcp route	89
3.16.6	crypto map l2tp-server dns-servers	90
3.16.7	crypto map l2tp-server enable	91
3.16.8	crypto map l2tp-server interface	91
3.16.9	crypto map l2tp-server ipv6cp	92
3.16.10	crypto map l2tp-server lcp echo	93
3.16.11	crypto map l2tp-server mru	94
3.16.12	crypto map l2tp-server mtu	94
3.16.13	crypto map l2tp-server multi-login	95
3.16.14	crypto map l2tp-server nat	96
3.16.15	crypto map l2tp-server range	96
3.16.16	crypto map l2tp-server session-logout	97
3.16.17	crypto map l2tp-server session-preempt	97
3.16.18	crypto map l2tp-server static-ip	98
3.16.19	crypto map nail-up	99
3.16.20	crypto map reauth-passive	99
3.16.21	crypto map set-peer	100
3.16.22	crypto map set-peer-fallback	101
3.16.23	crypto map set-profile	101
3.16.24	crypto map set-tcpmss	102
3.16.25	crypto map set-transform	103
3.16.26	crypto map traffic-selectors	104
3.16.27	crypto map tunnel-interface	104
3.16.28	crypto map virtual-ip dhcp route	105
3.16.29	crypto map virtual-ip dns-servers	106
3.16.30	crypto map virtual-ip enable	107
3.16.31	crypto map virtual-ip interface	107
3.16.32	crypto map virtual-ip multi-login	108
3.16.33	crypto map virtual-ip nat	108
3.16.34	crypto map virtual-ip range	109
3.16.35	crypto map virtual-ip session-logout	110
3.16.36	crypto map virtual-ip session-preempt	110
3.16.37	crypto map virtual-ip static-ip	111
3.17	dns-proxy	112

3.17.1	dns-proxy debug	112
3.17.2	dns-proxy filter assign host preset	112
3.17.3	dns-proxy filter assign host profile	113
3.17.4	dns-proxy filter assign interface preset	114
3.17.5	dns-proxy filter assign interface profile	115
3.17.6	dns-proxy filter engine	116
3.17.7	dns-proxy filter profile	117
3.17.8	dns-proxy filter profile description	117
3.17.9	dns-proxy filter profile dns53 upstream	118
3.17.10	dns-proxy filter profile https upstream	119
3.17.11	dns-proxy filter profile intercept enable	120
3.17.12	dns-proxy filter profile tls upstream	120
3.17.13	dns-proxy https upstream	121
3.17.14	dns-proxy intercept enable	123
3.17.15	dns-proxy max-ttl	123
3.17.16	dns-proxy proceed	124
3.17.17	dns-proxy rebind-protect	125
3.17.18	dns-proxy route object-group	125
3.17.19	dns-proxy srr-reset	127
3.17.20	dns-proxy tls upstream	127
3.18	dpn accept	128
3.19	dyndns profile	129
3.19.1	dyndns profile domain	130
3.19.2	dyndns profile password	130
3.19.3	dyndns profile send-address	131
3.19.4	dyndns profile type	131
3.19.5	dyndns profile update-interval	133
3.19.6	dyndns profile url	133
3.19.7	dyndns profile username	134
3.20	easyconfig check	135
3.20.1	easyconfig check exclude-gateway	135
3.20.2	easyconfig check max-fails	136
3.20.3	easyconfig check period	136
3.21	easyconfig disable	137
3.22	eula accept	138
3.23	igmp-proxy	138
3.23.1	igmp-proxy fast-leave	138
3.23.2	igmp-proxy force	139
3.24	igmp-snooping disable	140
3.25	interface	140
3.25.1	interface authentication chap	142
3.25.2	interface authentication eap-md5	142
3.25.3	interface authentication eap-mschapv2	143

3.25.4	interface authentication eap-ttls	143
3.25.5	interface authentication identity	144
3.25.6	interface authentication mschap	145
3.25.7	interface authentication mschap-v2	145
3.25.8	interface authentication pap	146
3.25.9	interface authentication password	147
3.25.10	interface authentication peap	147
3.25.11	interface authentication shared	148
3.25.12	interface authentication wpa-psk	148
3.25.13	interface auto-ssid	149
3.25.14	interface backhaul	150
3.25.15	interface band-steering	151
3.25.16	interface band-steering preference	151
3.25.17	interface beamforming explicit	152
3.25.18	interface beamforming implicit	153
3.25.19	interface ccp	154
3.25.20	interface channel	154
3.25.21	interface channel auto-rescan	155
3.25.22	interface channel width	156
3.25.23	interface chilli coaport	157
3.25.24	interface chilli dhcpif	157
3.25.25	interface chilli dns	158
3.25.26	interface chilli lease	159
3.25.27	interface chilli login	159
3.25.28	interface chilli logout	160
3.25.29	interface chilli macauth	161
3.25.30	interface chilli macpasswd	161
3.25.31	interface chilli nasip	162
3.25.32	interface chilli nasmac	163
3.25.33	interface chilli profile	163
3.25.34	interface chilli radius	164
3.25.35	interface chilli radiusacctport	165
3.25.36	interface chilli radiusauthport	165
3.25.37	interface chilli radiuslocationid	166
3.25.38	interface chilli radiuslocationname	167
3.25.39	interface chilli radiusnasid	167
3.25.40	interface chilli radiussecret	168
3.25.41	interface chilli uamallowed	169
3.25.42	interface chilli uamdomain	170
3.25.43	interface chilli uamhomepage	170
3.25.44	interface chilli uamport	171
3.25.45	interface chilli uamsecret	172
3.25.46	interface chilli uamserver	172

3.25.47	interface compatibility	173
3.25.48	interface connect	174
3.25.49	interface country-code	175
3.25.50	interface debug	175
3.25.51	interface description	176
3.25.52	interface dfs zero-wait	176
3.25.53	interface down	177
3.25.54	interface downlink-mumimo	178
3.25.55	interface downlink-ofdma	178
3.25.56	interface duplex	179
3.25.57	interface dyndns nobind	180
3.25.58	interface dyndns profile	180
3.25.59	interface dyndns update	181
3.25.60	interface encryption anonymous-dh	181
3.25.61	interface encryption enable	182
3.25.62	interface encryption key	183
3.25.63	interface encryption mppe	183
3.25.64	interface encryption owe	184
3.25.65	interface encryption tkip hold-down	185
3.25.66	interface encryption wpa	185
3.25.67	interface encryption wpa2	186
3.25.68	interface encryption wpa3	186
3.25.69	interface encryption wpa3 suite-b	187
3.25.70	interface esim disable	187
3.25.71	interface esim profile activate	188
3.25.72	interface esim profile deactivate	189
3.25.73	interface esim profile delete	189
3.25.74	interface esim profile download	190
3.25.75	interface esim profile list	191
3.25.76	interface esim profile rename	192
3.25.77	interface flowcontrol	192
3.25.78	interface follow	193
3.25.79	interface ft enable	194
3.25.80	interface ft mdid	194
3.25.81	interface ft otd	195
3.25.82	interface hide-ssid	196
3.25.83	interface iapp auto	196
3.25.84	interface iapp key	197
3.25.85	interface idle-timeout	198
3.25.86	interface igmp downstream	198
3.25.87	interface igmp fork	199
3.25.88	interface igmp upstream	199
3.25.89	interface include	200

3.25.90	interface inherit	201
3.25.91	interface ip access-group	202
3.25.92	interface ip address	202
3.25.93	interface ip address dhcp	203
3.25.94	interface ip adjust-ttl recv	204
3.25.95	interface ip adjust-ttl send	205
3.25.96	interface ip alias	205
3.25.97	interface ip dhcp client broadcast	206
3.25.98	interface ip dhcp client class-id	207
3.25.99	interface ip dhcp client debug	208
3.25.100	interface ip dhcp client displace	208
3.25.101	interface ip dhcp client dns-routes	209
3.25.102	interface ip dhcp client fallback	210
3.25.103	interface ip dhcp client hostname	210
3.25.104	interface ip dhcp client name-servers	211
3.25.105	interface ip dhcp client release	212
3.25.106	interface ip dhcp client renew	212
3.25.107	interface ip dhcp client routes	213
3.25.108	interface ip flow	213
3.25.109	interface ip global	214
3.25.110	interface ip mru	215
3.25.111	interface ip mtu	216
3.25.112	interface ip name-servers	217
3.25.113	interface ip nat loopback	217
3.25.114	interface ip remote	218
3.25.115	interface ip tcp adjust-mss	218
3.25.116	interface ipcp address	219
3.25.117	interface ipcp default-route	220
3.25.118	interface ipcp dns-routes	220
3.25.119	interface ipcp name-servers	221
3.25.120	interface ipcp vj	222
3.25.121	interface ipsec aggressive	222
3.25.122	interface ipsec encryption-level	223
3.25.123	interface ipsec force-encaps	224
3.25.124	interface ipsec ignore	225
3.25.125	interface ipsec ikev2	225
3.25.126	interface ipsec nail-up	226
3.25.127	interface ipsec name-servers	226
3.25.128	interface ipsec preshared-key	227
3.25.129	interface ipsec proposal lifetime	228
3.25.130	interface ipsec proposal local-id	229
3.25.131	interface ipsec proposal remote-id	229
3.25.132	interface ipsec transform-set lifetime	230

3.25.133	interface ipv6 address	231
3.25.134	interface ipv6 dhcp client pd hint	232
3.25.135	interface ipv6 id	232
3.25.136	interface ipv6 name-servers	233
3.25.137	interface ipv6 prefix	234
3.25.138	interface ipv6cp	234
3.25.139	interface lcp acfc	235
3.25.140	interface lcp echo	236
3.25.141	interface lcp pfc	236
3.25.142	interface ldpc	237
3.25.143	interface lldp disable	238
3.25.144	interface mac access-list address	238
3.25.145	interface mac access-list type	239
3.25.146	interface mac address	240
3.25.147	interface mac address factory	241
3.25.148	interface mac band	241
3.25.149	interface mac bssid	242
3.25.150	interface mac clone	243
3.25.151	interface openconnect accept-addresses	243
3.25.152	interface openconnect accept-routes	244
3.25.153	interface openconnect allow-basic-auth	244
3.25.154	interface openconnect authgroup	245
3.25.155	interface openconnect dtls	246
3.25.156	interface openconnect protocol	246
3.25.157	interface openvpn accept-routes	247
3.25.158	interface openvpn connect	248
3.25.159	interface openvpn name-servers	249
3.25.160	interface peer	249
3.25.161	interface peer-isolation	250
3.25.162	interface ping-check profile	251
3.25.163	interface ping-check restart	251
3.25.164	interface pmf	252
3.25.165	interface pmksa-lifetime	253
3.25.166	interface power	254
3.25.167	interface pppoe service	254
3.25.168	interface pppoe session auto-cleanup	255
3.25.169	interface preamble-short	255
3.25.170	interface proxy connect	256
3.25.171	interface proxy protocol	257
3.25.172	interface proxy socks5-udp	257
3.25.173	interface proxy upstream	258
3.25.174	interface reconnect-delay	259
3.25.175	interface rekey-interval	259

3.25.176	interface rename	260
3.25.177	interface rf e2p set	261
3.25.178	interface role	262
3.25.179	interface rrm	262
3.25.180	interface rssi-threshold	263
3.25.181	interface schedule	264
3.25.182	interface security-level	264
3.25.183	interface spatial-reuse	266
3.25.184	interface speed	266
3.25.185	interface speed nonegotiate	267
3.25.186	interface ssid	268
3.25.187	interface standby enable	269
3.25.188	interface standby timeout	270
3.25.189	interface storm-control disable	270
3.25.190	interface switchport access	271
3.25.191	interface switchport friend	272
3.25.192	interface switchport mode	272
3.25.193	interface switchport trunk	273
3.25.194	interface target-waketime	274
3.25.195	interface traffic-shape	275
3.25.196	interface tunnel destination	276
3.25.197	interface tunnel eoip id	276
3.25.198	interface tunnel gre keepalive	277
3.25.199	interface tunnel source	278
3.25.200	interface tx-burst	279
3.25.201	interface tx-queue length	279
3.25.202	interface tx-queue scheduler cake	280
3.25.203	interface tx-queue scheduler fq_codel	280
3.25.204	interface up	281
3.25.205	interface uplink-mumimo	281
3.25.206	interface uplink-ofdma	282
3.25.207	interface vlan qos egress map	283
3.25.208	interface vrrp group	283
3.25.209	interface vrrp group advertise	284
3.25.210	interface vrrp group ip	285
3.25.211	interface vrrp group priority	286
3.25.212	interface vrrp version	287
3.25.213	interface whnat	287
3.25.214	interface wireguard asc	288
3.25.215	interface wireguard listen-port	290
3.25.216	interface wireguard obfs-key	291
3.25.217	interface wireguard peer	291
3.25.218	interface wireguard private-key	298

3.25.219	interface wmm	298
3.25.220	interface wpa-eap radius secret	299
3.25.221	interface wpa-eap radius server	300
3.25.222	interface wps	300
3.25.223	interface wps auto-self-pin	301
3.25.224	interface wps button	301
3.25.225	interface wps peer	302
3.25.226	interface wps self-pin	303
3.25.227	interface zerotier accept-addresses	303
3.25.228	interface zerotier accept-routes	304
3.25.229	interface zerotier connect	304
3.25.230	interface zerotier network-id	305
3.26	ip arp	306
3.27	ip conntrack lockout disable	307
3.28	ip conntrack lockout duration	307
3.29	ip conntrack lockout threshold public	308
3.30	ip conntrack max-entries	309
3.31	ip conntrack sweep threshold	309
3.32	ip dhcp class	310
3.32.1	ip dhcp class option	311
3.33	ip dhcp host	311
3.34	ip dhcp pool	312
3.34.1	ip dhcp pool bind	313
3.34.2	ip dhcp pool bootfile	313
3.34.3	ip dhcp pool class	314
3.34.4	ip dhcp pool debug	315
3.34.5	ip dhcp pool default-router	316
3.34.6	ip dhcp pool dns-server	316
3.34.7	ip dhcp pool domain	317
3.34.8	ip dhcp pool enable	318
3.34.9	ip dhcp pool lease	318
3.34.10	ip dhcp pool next-server	319
3.34.11	ip dhcp pool option	320
3.34.12	ip dhcp pool range	321
3.34.13	ip dhcp pool update-dns	321
3.34.14	ip dhcp pool wpad	322
3.35	ip dhcp relay enable	323
3.36	ip dhcp relay lan	323
3.37	ip dhcp relay server	324
3.38	ip dhcp relay upstream interface	324
3.39	ip dhcp relay upstream server	325
3.40	ip dhcp relay wan	326
3.41	ip esp alg enable	326

3.42	ip flow-cache timeout active	327
3.43	ip flow-cache timeout inactive	328
3.44	ip flow-export destination	329
3.45	ip flow-export version	329
3.46	ip host	330
3.47	ip hotspot	330
3.47.1	ip hotspot auto-register disable	331
3.47.2	ip hotspot default-policy	331
3.47.3	ip hotspot host	332
3.47.4	ip hotspot host conform	333
3.47.5	ip hotspot host priority	334
3.47.6	ip hotspot policy	335
3.47.7	ip hotspot priority	336
3.47.8	ip hotspot wake	337
3.48	ip http lockout-policy	337
3.49	ip http log access	338
3.50	ip http log auth	339
3.51	ip http log webdav	339
3.52	ip http port	340
3.53	ip http proxy	341
3.53.1	ip http proxy auth	341
3.53.2	ip http proxy dns-override	342
3.53.3	ip http proxy domain	343
3.53.4	ip http proxy domain ndns	343
3.53.5	ip http proxy force-host	344
3.53.6	ip http proxy force-origin	345
3.53.7	ip http proxy preserve-host	345
3.53.8	ip http proxy preserve-origin	346
3.53.9	ip http proxy preserve-referer	347
3.53.10	ip http proxy security-level	347
3.53.11	ip http proxy ssl redirect	348
3.53.12	ip http proxy timeout	348
3.53.13	ip http proxy upstream	349
3.53.14	ip http proxy x-real-ip	350
3.54	ip http security-level	351
3.55	ip http ssl acme debug	450
3.56	ip http ssl acme ecdsa	352
3.57	ip http ssl acme get	353
3.58	ip http ssl acme revoke	353
3.59	ip http ssl acme list	354
3.60	ip http ssl enable	354
3.61	ip http ssl port	355
3.62	ip http ssl redirect	356

3.63	ip http x-frame-options	356
3.64	ip name-server	357
3.65	ip nat	358
3.66	ip nat full-cone	359
3.67	ip nat oc	360
3.68	ip nat restricted-cone	360
3.69	ip nat sstp	361
3.70	ip nat vpn	361
3.71	ip policy	362
3.71.1	ip policy description	363
3.71.2	ip policy ipv6 route	363
3.71.3	ip policy multipath	365
3.71.4	ip policy permit	365
3.71.5	ip policy permit auto	366
3.71.6	ip policy rate-limit input	366
3.71.7	ip policy rate-limit output	367
3.71.8	ip policy route	368
3.71.9	ip policy standalone	370
3.72	ip route	370
3.73	ip search-domain	372
3.74	ip sip alg direct-media	373
3.75	ip sip alg port	374
3.76	ip ssh	374
3.76.1	ip ssh cipher	375
3.76.2	ip ssh keygen	376
3.76.3	ip ssh lockout-policy	376
3.76.4	ip ssh port	377
3.76.5	ip ssh security-level	378
3.76.6	ip ssh session timeout	379
3.77	ip static	379
3.78	ip static rule	382
3.79	ip telnet	383
3.79.1	ip telnet lockout-policy	383
3.79.2	ip telnet port	384
3.79.3	ip telnet security-level	385
3.79.4	ip telnet session max-count	385
3.79.5	ip telnet session timeout	386
3.80	ip traffic-shape host	387
3.81	ip traffic-shape unknown-host	388
3.82	iperf3 interface	389
3.83	iperf3 port	390
3.84	iperf3 security-level	390
3.85	ipv6 local-prefix	391

3.86	ipv6 name-server	392
3.87	ipv6 pass	393
3.88	ipv6 route	394
3.89	ipv6 static	395
3.90	ipv6 static rule	396
3.91	ipv6 subnet	397
3.91.1	ipv6 subnet bind	397
3.91.2	ipv6 subnet dns-server	398
3.91.3	ipv6 subnet mode	399
3.91.4	ipv6 subnet number	400
3.91.5	ipv6 subnet prefix delegate	401
3.91.6	ipv6 subnet prefix length	401
3.92	isolate-private	401
3.93	known host	402
3.94	mws acquire	403
3.95	mws auto-ap-shutdown	403
3.96	mws backhaul shutdown	404
3.97	mws log stp	405
3.98	mws member	405
3.99	mws member debug	406
3.100	mws member dpn-accept	407
3.101	mws member port access	407
3.102	mws member port disable	408
3.103	mws member reboot	409
3.104	mws member update channel	409
3.105	mws member update check	410
3.106	mws member update start	411
3.107	mws member update stop	411
3.108	mws reboot	412
3.109	mws revisit	412
3.110	mws stp encapsulation	413
3.111	mws stp priority	413
3.112	mws update start	414
3.113	mws update stop	415
3.114	mws wlan	416
3.114.1	mws wlan band	416
3.114.2	mws wlan band-steering enable	417
3.114.3	mws wlan bind	418
3.114.4	mws wlan description	419
3.114.5	mws wlan enable	419
3.114.6	mws wlan encryption	420
3.114.7	mws wlan ft auto-setup	421
3.114.8	mws wlan ft enable	421

3.114.9	mws wlan ft iapp key	422
3.114.10	mws wlan ft mdid	422
3.114.11	mws wlan ft skip-band	423
3.114.12	mws wlan mlo enable	424
3.114.13	mws wlan mlo skip-band	424
3.114.14	mws wlan peer-isolation	425
3.114.15	mws wlan rrm enable	426
3.114.16	mws wlan rrm skip-band	426
3.114.17	mws wlan schedule	427
3.114.18	mws wlan ssid auto	428
3.114.19	mws wlan ssid hide	428
3.114.20	mws wlan ssid name	429
3.114.21	mws wlan wep key	429
3.114.22	mws wlan wpa eap authentication	430
3.114.23	mws wlan wpa eap radius secret	431
3.114.24	mws wlan wpa eap radius server	432
3.114.25	mws wlan wpa gcmp256	432
3.114.26	mws wlan wpa psk	433
3.114.27	mws wlan wpa sae ext-key enable	434
3.114.28	mws wlan wps button	434
3.114.29	mws wlan wps enable	435
3.114.30	mws wlan wps reset	435
3.115	mws zone	436
3.116	nextdns	437
3.116.1	nextdns assign	437
3.116.2	nextdns authenticate	438
3.116.3	nextdns authtoken	439
3.116.4	nextdns check-availability	439
3.117	ndns	440
3.117.1	ndns book-name	440
3.117.2	ndns check-name	443
3.117.3	ndns drop-name	444
3.117.4	ndns get-booked	444
3.117.5	ndns get-update	445
3.118	ntce	449
3.118.1	ntce debug	450
3.118.2	ntce filter assign host	450
3.118.3	ntce filter assign interface	451
3.118.4	ntce filter profile	452
3.118.5	ntce filter profile application	453
3.118.6	ntce filter profile description	453
3.118.7	ntce filter profile group	454
3.118.8	ntce filter profile schedule	455

3.118.9	ntce filter profile type	455
3.118.10	ntce memory-watcher	456
3.118.11	ntce qos category priority	456
3.118.12	ntce qos enable	457
3.118.13	ntce upstream rate-limit input	458
3.118.14	ntce upstream rate-limit output	458
3.119	ntp	459
3.120	ntp master	460
3.121	ntp server	460
3.122	ntp source	461
3.123	ntp sync-period	461
3.124	object-group fqdn	462
3.124.1	object-group fqdn description	463
3.124.2	object-group fqdn exclude	463
3.124.3	object-group fqdn include	465
3.125	object-group ip	466
3.125.1	object-group ip description	467
3.125.2	object-group ip exclude	467
3.125.3	object-group ip include	469
3.126	oc-server	470
3.126.1	oc-server camouflage	470
3.126.2	oc-server debug	471
3.126.3	oc-server dns-servers	471
3.126.4	oc-server interface	472
3.126.5	oc-server mtu	472
3.126.6	oc-server multi-login	473
3.126.7	oc-server pool-range	474
3.126.8	oc-server route	474
3.126.9	oc-server session-logout	475
3.126.10	oc-server session-preempt	476
3.126.11	oc-server static-ip	476
3.127	ping-check profile	477
3.127.1	ping-check profile host	478
3.127.2	ping-check profile max-fails	479
3.127.3	ping-check profile min-success	479
3.127.4	ping-check profile mode	480
3.127.5	ping-check profile port	481
3.127.6	ping-check profile timeout	481
3.127.7	ping-check profile update-interval	482
3.127.8	ping-check profile uri	483
3.128	ppe	483
3.129	pppoe pass	484
3.130	schedule	485

3.130.1	schedule action	485
3.130.2	schedule description	486
3.131	service dhcp	487
3.132	service dhcp-relay	487
3.133	service dns-proxy	488
3.134	service http	488
3.135	service igmp-proxy	488
3.136	service internet-checker	489
3.137	service iperf3	490
3.138	service ipsec	490
3.139	service mws	491
3.140	service ntce	491
3.141	service ntp	492
3.142	service oc-server	492
3.143	service snmp	493
3.144	service ssh	493
3.145	service sstp-server	494
3.146	service telnet	494
3.147	service udpxy	495
3.148	service upnp	495
3.149	service vpn-server	496
3.150	show	496
3.150.1	show acme	496
3.150.2	show associations	497
3.150.3	show button	499
3.150.4	show button bindings	499
3.150.5	show button handlers	501
3.150.6	show chilli profiles	503
3.150.7	show clock date	504
3.150.8	show clock timezone-list	505
3.150.9	show cloud	506
3.150.10	show components status	507
3.150.11	show configurator status	507
3.150.12	show credits	508
3.150.13	show crypto ike key	516
3.150.14	show crypto map	517
3.150.15	show defaults	518
3.150.16	show dns-proxy	519
3.150.17	show dns-proxy filter presets	521
3.150.18	show dns-proxy filter profiles	522
3.150.19	show dpn document	523
3.150.20	show dpn list	524
3.150.21	show dot1x	526

3.150.22	show drivers	527
3.150.23	show dyndns updaters	528
3.150.24	show easyconfig status	528
3.150.25	show eula document	529
3.150.26	show eula list	530
3.150.27	show interface	531
3.150.28	show interface bridge	533
3.150.29	show interface channel-utilization rrd	534
3.150.30	show interface channels	536
3.150.31	show interface chilli	538
3.150.32	show interface country-codes	538
3.150.33	show interface esim status	539
3.150.34	show interface mac	540
3.150.35	show interface name-server	541
3.150.36	show interface rf e2p	543
3.150.37	show interface rrd	543
3.150.38	show interface spectrum rrd	545
3.150.39	show interface stat	547
3.150.40	show interface vrrp	548
3.150.41	show interface wps pin	549
3.150.42	show interface wps status	549
3.150.43	show interface zerotier peers	550
3.150.44	show internet status	552
3.150.45	show ip arp	553
3.150.46	show ip conntrack lockout	553
3.150.47	show ip dhcp bindings	554
3.150.48	show ip dhcp pool	555
3.150.49	show ip hotspot	555
3.150.50	show ip hotspot rrd	557
3.150.51	show ip hotspot summary	559
3.150.52	show ip http proxy	561
3.150.53	show ip name-server	562
3.150.54	show ip nat	563
3.150.55	show ip neighbour	564
3.150.56	show ip policy	565
3.150.57	show ip route	568
3.150.58	show ip service	570
3.150.59	show ipsec	571
3.150.60	show ipv6 addresses	572
3.150.61	show ipv6 dhcp bindings	573
3.150.62	show ipv6 prefixes	574
3.150.63	show ipv6 route	575
3.150.64	show ipv6 subnets	576

3.150.65	show last-change	576
3.150.66	show led	577
3.150.67	show led bindings	578
3.150.68	show led controls	581
3.150.69	show log	584
3.150.70	show mws associations	585
3.150.71	show mws candidate	586
3.150.72	show mws log	587
3.150.73	show mws member	588
3.150.74	show mws wlan	590
3.150.75	show ndns	592
3.150.76	show netfilter	593
3.150.77	show nextdns availability	593
3.150.78	show nextdns profiles	594
3.150.79	show ntce applications	594
3.150.80	show ntce attributes	597
3.150.81	show ntce filter profile	600
3.150.82	show ntce groups	601
3.150.83	show ntce groupsets	607
3.150.84	show ntce hosts	608
3.150.85	show ntce oses	613
3.150.86	show ntce status	614
3.150.87	show ntp status	615
3.150.88	show object-group fqdn	616
3.150.89	show oc-server	617
3.150.90	show ping-check	618
3.150.91	show processes	619
3.150.92	show running-config	621
3.150.93	show schedule	627
3.150.94	show self-test	628
3.150.95	show site-survey	628
3.150.96	show snmp view	629
3.150.97	show ssh fingerprint	630
3.150.98	show sstp-server	630
3.150.99	show system	631
3.150.100	show system country	632
3.150.101	show system cpustat	633
3.150.102	show system mode	634
3.150.103	show tags	635
3.150.104	show threads	635
3.150.105	show torrent status	636
3.150.106	show upnp pinhole	637
3.150.107	show upnp redirect	638

3.150.108	show version	640
3.150.109	show vpn-server	641
3.150.110	show wireguard-server	642
3.151	snmp community	644
3.152	snmp contact	644
3.153	snmp location	645
3.154	snmp view	645
3.155	snmp view exclude	646
3.156	snmp view include	647
3.157	sstp-server	647
3.157.1	sstp-server allow-bridging	648
3.157.2	sstp-server camouflage	648
3.157.3	sstp-server debug	649
3.157.4	sstp-server dhcp route	649
3.157.5	sstp-server dns-servers	650
3.157.6	sstp-server interface	651
3.157.7	sstp-server ipv6cp	652
3.157.8	sstp-server lcp echo	652
3.157.9	sstp-server lcp force-pap	653
3.157.10	sstp-server mru	654
3.157.11	sstp-server mtu	654
3.157.12	sstp-server multi-login	655
3.157.13	sstp-server pool-range	655
3.157.14	sstp-server session-logout	656
3.157.15	sstp-server session-preempt	656
3.157.16	sstp-server static-ip	657
3.158	system	658
3.158.1	system button	658
3.158.2	system caption	659
3.158.3	system clock date	660
3.158.4	system clock timezone	660
3.158.5	system configuration factory-reset	661
3.158.6	system configuration fail-safe commit	661
3.158.7	system configuration fail-safe keep-alive	662
3.158.8	system configuration fail-safe rollback	662
3.158.9	system configuration fail-safe timer	663
3.158.10	system configuration save	664
3.158.11	system country	664
3.158.12	system debug	665
3.158.13	system description	665
3.158.14	system domainname	666
3.158.15	system hostname	666
3.158.16	system led power schedule	667

3.158.17	system led power shutdown	668
3.158.18	system log clear	668
3.158.19	system log reduction	669
3.158.20	system log server	669
3.158.21	system log suppress	670
3.158.22	system mode	671
3.158.23	system ndss debug	671
3.158.24	system ndss dump-report disable	672
3.158.25	system reboot	672
3.158.26	system set	673
3.158.27	system trace lock threshold	674
3.159	tools	675
3.159.1	tools arping	675
3.159.2	tools iperf3	676
3.159.3	tools ping	682
3.159.4	tools ping6	684
3.159.5	tools traceroute	686
3.160	udpxy	687
3.160.1	udpxy buffer-size	688
3.160.2	udpxy buffer-timeout	688
3.160.3	udpxy interface	689
3.160.4	udpxy port	690
3.160.5	udpxy renew-interval	690
3.160.6	udpxy timeout	691
3.161	upnp lan	691
3.162	user	692
3.162.1	user password generate	693
3.162.2	user password md5	693
3.162.3	user password nt	695
3.162.4	user password plain	695
3.162.5	user password validate	695
3.162.6	user tag	696
3.163	vpn-server	699
3.163.1	vpn-server debug	699
3.163.2	vpn-server dhcp route	700
3.163.3	vpn-server dns-servers	700
3.163.4	vpn-server interface	701
3.163.5	vpn-server ipv6cp	702
3.163.6	vpn-server lcp echo	703
3.163.7	vpn-server lockout-policy	703
3.163.8	vpn-server mppe	704
3.163.9	vpn-server mppe-optional	705
3.163.10	vpn-server mru	705

3.163.11	vpn-server mtu	706
3.163.12	vpn-server multi-login	707
3.163.13	vpn-server pool-range	707
3.163.14	vpn-server session-logout	708
3.163.15	vpn-server session-preempt	708
3.163.16	vpn-server static-ip	709
3.164	wireguard-server interface	710
Glossary		711
Appendix A		
Interface Hierarchy		725
Appendix B		
HTTP API		727
B.1	REST Core Interface	727
B.1.1	Resource Location	727
B.1.2	Methods	727
B.1.3	Data Format	728
B.2	XML Core Interface	731
B.2.1	Command Request	732
B.2.2	Configuration Request	733
B.2.3	Request Packet	733
Appendix C		
SNMP MIB		735
C.1	SNMPv2-MIB	735
C.2	IF-MIB	735
C.3	IP-MIB	737
C.4	UDP-MIB	737
C.5	HOST-RESOURCES-MIB	738
C.6	UCD-SNMP-MIB	738
C.7	MOBILE-INTERFACE-METRICS-MIB	739
Appendix D		
IPsec Encryption Levels		741
D.1	weak	741
D.2	weak-pfs	742
D.3	normal	744
D.4	normal-pfs	745
D.5	normal-3des	746
D.6	normal-3des-pfs	747
D.7	high	748
D.8	strong	749
D.9	strong-aead	750
D.10	strong-aead-pfs	750

Product Overview

1.1 Hardware Configuration

CPU MediaTek MT7981B Aarch64 (ARM64)® Cortex-A53 1300 MHz, 2 cores / 2 threads

RAM 512MB DDR4-2133

Flash 128MB

Ethernet

Ports	Chipset	Notes
2	EN8801S	

Label	Speed	Notes
0	1000 Mbps	WAN port
1	1000 Mbps	

Wi-Fi

Band	Chipset	Notes
2.4 GHz	MT7976C	802.11ax 2x2, QAM256
5 GHz		802.11ax 3x3, BF, MU-MIMO, DFS

Introduction to the CLI

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

The primary tool for managing the Racer 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.

Racer has three types of settings:

Current settings	<i>running config</i> is a set of commands describing the current status of the system. Current settings are stored in RAM and reflect every change of the system settings. However, the content of RAM is lost when the device is turned off. To restore the settings after reboot, they must be saved in non-volatile memory.
Startup configuration	<i>startup config</i> is a sequence of commands, which is stored in a specific partition of the non-volatile memory. It is used to initialize the system immediately after startup.
Default settings	<i>default config</i> contains factory default settings of Racer. 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 Racer 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 GigabitEthernet1 network interface is set using the **address** command, which is located in the **interface** → **ip** group:

```
(config)>interface GigabitEthernet1 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 GigabitEthernet1
(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 Gi[Tab]

Usage template:
interface {name}

Variants:
GigabitEthernet0
GigabitEthernet0/Vlan1
GigabitEthernet1

(config)> interface GigabitEthernet0[Tab]

Usage template:
interface {name}

Variants:
GigabitEthernet0/Vlan1
GigabitEthernet1

(config)> interface GigabitEthernet0[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 GigabitEthernet1 [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 GigabitEthernet1

```

2.3 Prefix no

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

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

```

(config)> no interface PPPoE0

```

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

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

2.4 Multiple input

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

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

Example 2.1. Using a command with multiple input

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

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

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

2.5 Saving to startup settings

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

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

2.6 Delayed restart

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

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

Command Reference

3.1 Core commands

Core commands are used to manage files on your device.

3.1.1 copy

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

Prefix no No

Change settings No

Multiple input No

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

Arguments

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

Example

Current settings can be saved as follows:

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

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

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

History

Version	Description
2.00	The copy command has been introduced.

3.1.2 erase

Description Delete a file from the Racer device.

Prefix no No

Change settings Yes

Multiple input Yes

Synopsis `(config)> erase <filename>`

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

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

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	<i>String</i>	Command name.
a	<i>Integer</i>	Number of lines to show above a match (before the matching line).
b	<i>Integer</i>	Number of lines to show below a match (after the matching line).
c	<i>Integer</i>	Nesting depth of XML context.
pattern	<i>String</i>	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,usbdsi,usbldr,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: Racer (KN-4010)
hw_version: 12108000
  hw_type: router
  hw_id: KN-4010
  device: Racer
  consent: EA
  region: EA
description: Keenetic Racer (KN-4010)

```

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

Example

```

(config)> ls FILES:

rel: FILES:

entry, type = D:
  name: com

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

entry, type = D:
  name: speedfan

```

```
entry, type = D:
    name: portable

entry, type = D:
    name: video

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

History

Version	Description
2.00	The ls command has been introduced.

3.1.6 mkdir

Description

Create a new directory.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

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

Arguments

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

Example

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

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

History

Version	Description
2.12	The mkdir command has been introduced.

3.1.7 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	<i>Filename</i>	Full path to the file or alias.

Example

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

History

Version	Description
2.00	The more command has been introduced.

3.2 access-list

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-acl)

Synopsis

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

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

Arguments

Argument	Value	Description
name	<i>String</i>	Filtering rules list name (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	<p>Enable automatic deletion of the ACL rules when deleting an interface. The command is forced on access lists with the <code>_WEBADMIN_</code> prefix.</p> <p>The command cannot be enabled if there are no bound interfaces. The exception is reading the startup-config.</p> <p>Command with no prefix disables automatic deletion.</p>				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Synopsis	<pre>(config-acl)> auto-delete (config-acl)> no auto-delete</pre>				
Example	<pre>(config-acl)> auto-delete Network::Acl: Enabled auto-deletion for "_WEBADMIN_Home" access ► group.</pre> <pre>(config-acl)> no auto-delete Network::Acl: Disabled auto-deletion for "_WEBADMIN_Home" access ► group.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>3.09</td><td>The access-list auto-delete command has been introduced.</td></tr> </tbody> </table>	Version	Description	3.09	The access-list auto-delete command has been introduced.
Version	Description				
3.09	The access-list auto-delete command has been introduced.				

3.2.2 access-list deny

Description	<p>Add a packet filtering deny rule into a specified ACL.</p> <p>Command with no prefix removes the rule.</p>
Prefix no	Yes
Change settings	Yes
Multiple input	Yes
Synopsis	<pre>(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>))]</pre>

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

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	<i>Integer</i>	Destination port in the <i>TCP</i> or <i>UDP</i> header.
destination-end-port	<i>Integer</i>	The end of the destination range of ports.
dst-port-operator	lt	Operator “less” to compare the port with the specified <i>destination-port</i> .
	eq	Operator “equal” to compare the port with the specified <i>destination-port</i> .
	gt	Operator “greater” to compare the port with the specified <i>destination-port</i> .

Example

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

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

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

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

History

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

3.2.3 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 <i>source</i> . There are two ways to enter the mask: the canonical form (for example, 255 . 255 . 255 . 0) and the form of prefix bit length (for example, /24).
source-port	Integer	Source port in the TCP or UDP header.
source-end-port	Integer	The end of the source range of ports.
src-port-operator	lt	Operator "less" to compare the port with the specified <i>source-port</i> .

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

Example

```
(config-acl)> 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	<i>Integer</i>	The ACL rule number.
disable	<i>Keyword</i>	Disable the ACL rule.
schedule	<i>Schedule</i>	The name of the schedule that was created with schedule group of commands.
order	<i>Integer</i>	New position of the ACL rule in the list.
description	<i>String</i>	The ACL rule description.

Example

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

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

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

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

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

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

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

History

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

3.3 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	<i>Keyword</i>	Access to the Cloud Control2 is allowed for public, private and protected interfaces.
private	<i>Keyword</i>	Access to the Cloud Control2 is allowed for private interfaces only.

Example

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

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

History

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

3.4 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.

3.4.1 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.

3.4.2 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.

3.4.3 components auto-update schedule

Description Assign a schedule for the auto-update operation. Schedule must be created and customized with **schedule action** command before execution.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

Arguments

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

Example

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

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

History

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

3.4.4 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	<i>Keyword</i>	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.

3.4.5 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.

3.4.6 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>`

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

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

Version	Description
2.00	The components install command has been introduced.

3.4.7 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 ]`

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

Example `(config-comp)> list`

```

firmware:
  version: 2.13.C.0.0-1

sandbox: stable

local:
  sandbox: beta

```

```

component:
    name: base

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

    preset: minimal
    preset: recommended
    queued: yes
...

```

History

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

3.4.8 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.

3.4.9 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.

3.4.10 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	<i>String</i>	Component name. List of available components for removal can be displayed with the components list command.

Example

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

History

Version	Description
2.00	The components remove command has been introduced.

3.4.11 components validity-period

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.5 crypto engine

Description

Select the type of *ESP* packets processing with *IPsec*. By default, the hardware mode is used.

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.
	hardware	Hardware 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.

3.6 crypto ike key

Description

Add *IKE* key with remote side ID.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

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

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

Arguments

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

Example

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

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

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

History

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

3.7 crypto ike mtu

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.8 crypto ike nat-keepalive

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.9 crypto ike policy

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-ike-policy)

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.9.1 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
```

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

Example

```
(config-ike-policy)> lifetime 3600
IpSec::Manager: "test": crypto ike policy lifetime set to 3600 s.

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

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

3.9.2 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
```

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.

3.9.3 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.

3.9.4 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	<i>String</i>	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.

3.10 crypto ike proposal

Description

Access to a group of commands to configure selected [IKE](#) proposal. If [IKE](#) proposal is not found, the command tries to create it.

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

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-ike-proposal)

Synopsis

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

Arguments

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

Example

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

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

History

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

3.10.1 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.

3.10.2 crypto ike proposal dh-group

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

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-ike-proposal)> dh-group <dh-group>
```

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

Arguments

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

Example

```
(config-ike-proposal)> dh-group 14
```

```
IpSec::Manager: "test": crypto ike proposal DH group "14" ►  
successfully added.
```

```
(config-ike-proposal)> no dh-group 14
```

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

History

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

3.10.3 crypto ike proposal encryption

Description

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

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

Prefix no

Yes

Change settings Yes**Multiple input** Yes

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.10.4 crypto ike proposal integrity

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

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

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

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.10.5 crypto ike proposal prf

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

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

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

Arguments

Argument	Value	Description
prf	md5	<i>HMAC</i> signature algorithm of <i>IKE</i> messages.
	sha1	
	aes-xcbc	
	sha256	
	sha384	

Argument	Value	Description
	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.

3.11 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.

3.12 crypto ipsec profile

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

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Group entry (config-ipsec-profile)

Synopsis

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

Arguments

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

Example

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

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

History

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

3.12.1 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.

3.12.2 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.

3.12.3 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: "VPNLT2TPServer": crypto ipsec profile DPD action ►
set to "clear".

(config-ipsec-profile)> no dpd-clear
IpSec::Manager: "VPNLT2TPServer": crypto ipsec profile DPD action ►
set to "restart".
```

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

3.12.4 crypto ipsec profile dpd-interval

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

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.12.5 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	<i>String</i>	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: "VPNLT2TPServerIKE2": set local ID ►
"my.example.com" with type "fqdn".
```

```
(config-ipsec-profile)> identity-local fqdn ndns
IpSec::Config::Profile: "VPNLT2TPServerIKE2": 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 <i>IPSec</i> server identity with certificate.

3.12.6 crypto ipsec profile match-identity-remote

Description

Set remote host identifier for *IPsec* profile.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.12.7 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.

Argument	Value	Description
	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.

3.12.8 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	<i>IKE</i> policy name. You can see the list of available policies with help of policy [Tab] command.

Example

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

```
Choose:
VirtualIPServer
VPNL2TPServer
```

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

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

History

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

3.12.9 crypto ipsec profile preshared-key

Description

Set pre-shared key for *IPsec* profile.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.12.10 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.

3.12.11 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	<i>String</i>	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.

3.12.12 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	<i>String</i>	Password for <i>XAuth</i> client mode.

Example

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

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

History

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

3.13 crypto ipsec rekey delete-delay

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.14 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.

3.15 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	<i>String</i>	<i>IPsec</i> transformation name. Latin letters, numbers, dots, hyphens and underscores are acceptable.

Example

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

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

History

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

3.15.1 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.

3.15.2 crypto ipsec transform-set cypher

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

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

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

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

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

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

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

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

3.15.3 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	
	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.

3.15.4 crypto ipsec transform-set hmac

Description Add the selected value of [HMAC](#) signature algorithm to [IPsec](#) transformation. The order of adding has a value for data exchange on the [IKE](#) protocol.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

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

Arguments

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

3.15.5 crypto ipsec transform-set lifetime

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

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

Arguments

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

Example

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

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

History

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

3.16 crypto map

Description

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-crypto-map)

Synopsis

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

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

Arguments

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

Example

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

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

History	Version	Description
	2.06	The crypto map command has been introduced.

3.16.1 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.

3.16.2 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.

3.16.3 crypto map fallback-check-interval

Description

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

Command with **no** prefix disables checking.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> fallback-check-interval <interval-value>
```

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

Arguments

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

Example

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

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

History

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

3.16.4 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.

3.16.5 crypto map l2tp-server dhcp route

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

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

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

Arguments

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

Example

```
(config-crypto-map)> l2tp-server dhcp route 192.168.2.0/24
IpSec::Manager: "VPNLT2TPServer": 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: "VPNLT2TPServer": Cleared DHCP INFORM routes.
```

History

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

3.16.6 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	<i>IP address</i>	Address of primary DNS server.
dns2	<i>IP address</i>	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.

3.16.7 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.

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

Example

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

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

```
Choose:
```

```
      GigabitEthernet1
      ISP
WifiMaster0/AccessPoint2
WifiMaster1/AccessPoint1
WifiMaster0/AccessPoint3
WifiMaster0/AccessPoint0
      AccessPoint
WifiMaster1/AccessPoint2
WifiMaster0/AccessPoint1
      GuestWiFi
```

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

```
IpSec::Manager: "VPNLTTPServer": crypto map L2TP/IPsec server ►
is bound to ISP.
```

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

```
IpSec::Manager: "VPNLTTPServer": crypto map L2TP/IPsec server ►
is unbound.
```

History

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

3.16.9 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: "VPNLTTPServer": crypto map L2TP/IPsec server ►
IPv6CP is enabled.
```

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

History

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

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

Example

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

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

History

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

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

Arguments

Argument	Value	Description
mru	<i>Integer</i>	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.

3.16.12 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	<i>Integer</i>	<i>MTU</i> value. Can take values in the range from 576 to 1500 inclusively.

Example

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

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

History

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

3.16.13 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.

3.16.14 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.

3.16.15 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.

3.16.16 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	<i>Integer</i>	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.

3.16.17 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.

3.16.18 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	<i>String</i>	Username.
address	<i>IP address</i>	IP address to bind.

Example

```
(config-crypto-map)> l2tp-server static-ip admin 172.16.2.33
IpSec::Manager: "VPNLTTPServer": 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: "VPNLTTPServer": 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.

3.16.19 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.

3.16.20 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: "VPNLT2TPServer": crypto map SA passive ►
reauthentication enabled.
```

```
(config-crypto-map)> no reauth-passive
IpSec::Manager: "VPNLT2TPServer": crypto map SA passive ►
reauthentication disabled.
```

History

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

3.16.21 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	<i>String</i>	IP address or domain name of remote host.
	any	Accept any incoming connections.

Example

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

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

History

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

3.16.22 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	<i>String</i>	IP address or domain name of remote host.

Example

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

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

History

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

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

Example

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

Usage template:

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

Choose:

```
TEST
```

```
MYMY
```

```
VirtualIPServer
```

```
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.

3.16.24 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 identify *MSS* limit.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Arguments

Argument	Value	Description
mss-value	<i>Integer</i>	<i>MSS</i> upper limit. Can take values in the range from 576 to 1500.

Argument	Value	Description
	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.

3.16.25 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	<i>IPsec</i> 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.

3.16.26 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	<i>String</i>	Name of local object group.
remote	<i>String</i>	Name of remote object group.

Example

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

3.16.27 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	<i>Interface</i>	Full name of the interface.

Example

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

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

History

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

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

Example

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

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

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

History

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

3.16.29 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	<i>IP address</i>	Address of primary DNS server.
dns2	<i>IP address</i>	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.

3.16.30 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.

3.16.31 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	<i>Interface</i>	Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command.

Example

```
(config-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.

3.16.32 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.

3.16.33 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.

3.16.34 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	<i>IP address</i>	The beginning of the address range.
end	<i>IP address</i>	The end of the address range.
size	<i>Integer</i>	Address range size.

Example

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

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

History

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

3.16.35 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	<i>Integer</i>	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.

3.16.36 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.

3.16.37 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	<i>String</i>	Username.
address	<i>IP address</i>	IP address to bind.

Example

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

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

History

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

3.17 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.

3.17.1 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.

3.17.2 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	<i>MAC address</i>	Network device MAC address.
preset	<i>String</i>	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.

3.17.3 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	<i>MAC address</i>	Network device MAC address.
profile	<i>String</i>	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.

3.17.4 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	<i>Interface</i>	Network interface name. Must have a private or protected security level.

Argument	Value	Description
preset	<i>String</i>	Preset name.

Example

```
(config-dnsp) > filter assign interface preset Bridge0 ►
quad9-security
Dns::Filter::Public: Associated interface "Bridge0" with preset ►
"quad9-security".
```

```
(config-dnsp) > no filter assign interface preset Bridge0
Dns::Filter::Public: Removed preset for interface "Bridge0".
```

```
(config-dnsp) > 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.

3.17.5 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-dnsp) > filter assign interface profile <interface> <profile>
```

```
(config-dnsp) > no filter assign interface profile [ <interface> ]
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Network interface name. Must have a private or protected security level.
profile	<i>String</i>	Profile name.

Example

```
(config-dnsp) > filter assign interface profile ►
GigabitEthernet0/Vlan1 DnsProfile0
```

```
Dns::Filter::Public: Associated interface ►
"GigabitEthernet0/Vlan1" with profile "DnsProfile0".
```

```
(config-dnsp) > no filter assign interface profile ►
GigabitEthernet0/Vlan1
Dns::Filter::Public: Removed profile for interface ►
"GigabitEthernet0/Vlan1".
```

```
(config-dnsp) > 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.

3.17.6 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-dnsp) > filter engine <engine>
```

```
(config-dnsp) > no filter engine
```

Arguments

Argument	Value	Description
engine	interceptor	One of available DNS filtering engines.
	public	
	nextdns	
	opkg	
	skydns	

Example

```
(config-dnsp) > filter engine interceptor
Dns::Filter::Interceptor: Enabled.
```

```
(config-dnsp) > no filter engine
Dns::Manager: Disabled filter engine.
```

History	Version	Description
	3.08	The dns-proxy filter engine command has been introduced.

3.17.7 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	<i>String</i>	Profile name in reduced form, not more than 32 characters. The maximum number of profiles is 8.

Example

```
(config-dnspx)> filter profile test
Dns::Filter::Public: Created profile "test".
```

```
(config-dnspx)> no filter profile test
Dns::Filter::Public: Removed profile "test".
```

History	Version	Description
	3.08	The dns-proxy filter profile command has been introduced.

3.17.8 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	<i>String</i>	Profile name.
description	<i>String</i>	Arbitrary description of the profile.

Example

```
(config-dnspx)> filter profile test description MyProfile1
Dns::Filter::Public: Set description to profile "test".
```

```
(config-dnspx)> no filter profile test description
Dns::Filter::Public: Cleared description of profile "test".
```

History

Version	Description
3.08	The dns-proxy filter profile description command has been introduced.

3.17.9 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	<i>String</i>	Profile name.
address	<i>IP address</i>	IP address of the server.
port	<i>Integer</i>	The server port.

Example

```
(config-dnspx)> filter profile test dns53 upstream 1.1.1.1
Dns::Filter::Public: Added DNS name server 1.1.1.1 to profile ►
"test".
```

```
(config-dnsp) > no filter profile test dns53 upstream
Dns::Filter::Public: Removed DNS name server from profile "test".
```

```
(config-dnsp) > 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.

3.17.10 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-dnsp) > filter profile <name>https upstream <url> [ spki <hash> ]
```

```
(config-dnsp) > no filter profile <name>https description [ <url> ]
```

Arguments

Argument	Value	Description
name	<i>String</i>	Profile name.
url	<i>String</i>	URL of DNS service.
hash	<i>String</i>	Hash TLS certificate.

Example

```
(config-dnsp) > 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-dnsp) > 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-dnsp) > 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.

3.17.11 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	<i>String</i>	Filtering profile name.

Example

```
(config-dnspx)> filter profile DnsProfile0 intercept enable
Dns::Filter::Public: Enabled intercept in profile "DnsProfile0".
```

```
(config-dnspx)> no filter profile DnsProfile0 intercept enable
Dns::Filter::Public: Disabled intercept in profile "DnsProfile0".
```

History

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

3.17.12 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	<i>String</i>	Profile name.
address	<i>IP address</i> <i>FQDN</i>	Address of the server.
port	<i>Integer</i>	The server port.
fqdn	<i>String</i>	Full domain name.
hash	<i>String</i>	Hash TLS certificate.

Example

```
(config-dnspx)> filter profile test tls upstream 1.1.1.1 8853 ►  
sni cloudflare-dns.com  
Dns::Filter::Public: Added DNS-over-TLS name server 1.1.1.1 to ►  
profile "test".
```

```
(config-dnspx)> no filter profile test tls upstream 1.1.1.1 8853  
Dns::Filter::Public: Removed DNS-over-TLS name server 1.1.1.1 ►  
from profile "test".
```

```
(config-dnspx)> no filter profile test tls upstream  
Dns::Filter::Public: Removed DNS-over-TLS name server from ►  
profile "test".
```

History

Version	Description
3.08	The dns-proxy filter profile tls upstream command has been introduced.

3.17.13 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	<i>String</i>	Custom URL of DNS service.
format	dnsm	The format to represent DNS data.
	json	
hash	<i>String</i>	Hash TLS certificate.
interface	<i>Interface</i>	Interface name to configure.
domain	<i>String</i>	The domain name.

Example

```
(config-dnspx)> https upstream ►
https://cloudflare-dns.com/dns-query?ct=application/dns-json json
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ►
"https://cloudflare-dns.com/dns-query?ct=application/dns-json" ►
(json) added.
```

```
(config-dnspx)> https upstream https://dns.adguard.com/dns-query ►
dnsm
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ►
"https://dns.adguard.com/dns-query" (dnsm) added.
```

```
(config-dnspx)> https upstream https://dns.adguard.com/dns-query ►
dnsm on ISP
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ►
"https://dns.adguard.com/dns-query" (dnsm) added.
```

```
(config-dnspx)> https upstream https://my.domain.com/dns-query ►
dnsm domain my.lib
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ►
"https://my.domain.com/dns-query" (dnsm) added.
```

```
(config-dnspx)> no https upstream ►
https://dns.adguard.com/dns-query
Dns::Secure::ManagerDoh: DNS-over-HTTPS name server ►
"https://dns.adguard.com/dns-query" deleted.
```

```
(config-dnspx)> no https upstream
Dns::Secure::ManagerDoh: DNS-over-HTTPS name servers cleared.
```

History

Version	Description
3.01	The dns-proxy https upstream command has been introduced.
3.08	The domain argument was added.

3.17.14 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-dnspj)> intercept enable
(config-dnspj)> no intercept enable
```

Example

```
(config-dnspj)> intercept enable
Dns::Filter::Filter: Enable intercept for system profile.
(config-dnspj)> 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.

3.17.15 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-dnspj)> max-ttl <max-ttl>
(config-dnspj)> no max-ttl
```

Arguments

Argument	Value	Description
max-ttl	<i>Integer</i>	The maximum value of TTL. Can take values in the range from 1 to 604800000 milliseconds (1 week).

Example

```
(config-dnspj)> max-ttl 10000
Dns::Proxy: Dns-proxy set max-ttl to 10000.
```

```
(config-dnspj)> no max-ttl
Dns::Proxy: Dns-proxy max-ttl cleared.
```

History

Version	Description
2.05	The dns-proxy max-ttl command has been introduced.

3.17.16 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-dnspj)> proceed <proceed>
```

```
(config-dnspj)> no proceed
```

Arguments

Argument	Value	Description
proceed	<i>Integer</i>	The value of DNS proxy proceed in milliseconds. Can take values in the range from 1 to 50000.

Example

```
(config-dnspj)> proceed 600
Dns::Proxy: Dns-proxy set 600 msec. proceed.
```

```
(config-dnspj)> no proceed
Dns::Proxy: Dns-proxy proceed timeout reset.
```

History

Version	Description
2.04	The dns-proxy proceed command has been introduced.

3.17.17 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	<i>Keyword</i>	Block responses that point to IP addresses belonging to private network segments.
strict	<i>Keyword</i>	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.

3.17.18 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

¹ <https://www.iana.org/assignments/iana-ipv4-special-registry/iana-ipv4-special-registry.xhtml>

```
(config-dnspx)> route object-group <group> (( <gateway> [ <interface>
]) | <interface> ) [ auto ] [ reject ]
```

```
(config-dnspx)> no route [ object-group <group> ] [ <interface> ]
```

Arguments

Argument	Value	Description
group	<i>String</i>	The FQDN object group name.
gateway	<i>IP address</i>	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	<i>Interface</i>	Interface full name or an alias. 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	<i>Keyword</i>	Allows you to apply the route when specified gateway becomes available.
reject	<i>Keyword</i>	Enable route to use only the selected interface for routing the traffic to the specified destination. If the specified interface is not active, the traffic is not sent via other possible routes. This option works only when using the auto option and cannot be applied to the default route.

Example

```
(config-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:fe5:6392 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.

3.17.19 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	<i>Integer</i>	The value of time reset in milliseconds. Can take values in the range from 0 to 600000.

Example

```
(config-dnspx)> srr-reset 111
Dns::Manager: Set send-response rating reset time to 111 ms.
```

```
(config-dnspx)> no srr-reset
Dns::Manager: Reset send-response rating reset time to default.
```

History

Version	Description
2.12	The dns-proxy srr-reset command has been introduced.

3.17.20 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	<i>IP address</i>	IP address of the server.
port	<i>Integer</i>	The server port.
fqdn	<i>String</i>	Full domain name.
hash	<i>String</i>	Hash TLS certificate.
interface	<i>Interface</i>	Interface name to configure.
domain	<i>String</i>	The domain name.

Example

```
(config-dnspx)> tls upstream 1.1.1.1 853 sni cloudflare-dns.com
Dns::Secure::ManagerDot: DNS-over-TLS name server 1.1.1.1:853 ►
added.
```

```
(config-dnspx)> tls upstream 1.1.1.1 853 sni cloudflare-dns.com ►
on ISP
Dns::Secure::ManagerDot: DNS-over-TLS name server 1.1.1.1:853 ►
added.
```

```
(config-dnspx)> tls upstream 144.144.144.143 853 sni ►
my.domain.com domain my.lib
Dns::Secure::ManagerDot: DNS-over-TLS name server ►
144.144.144.143:853 added.
```

```
(config-dnspx)> no tls upstream 1.1.1.1 853
Dns::Secure::ManagerDot: DNS-over-TLS name server 1.1.1.1:853 ►
deleted.
```

```
(config-dnspx)> no tls upstream
Dns::Secure::ManagerDot: DNS-over-TLS name servers cleared.
```

History

Version	Description
3.01	The dns-proxy tls upstream command has been introduced.
3.08	The domain argument was added.

3.18 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.

3.19 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	<i>String</i>	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.

3.19.1 dyndns profile domain

Description Assign permanent domain name to the computer. You need to register this domain name on the site [dyndns.com](http://www.dyndns.com)² or [no-ip.com](http://www.no-ip.com)³ before execution.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> domain <domain>
(config-dyndns)> no domain
```

Arguments

Argument	Value	Description
domain	<i>String</i>	The domain name. Maximum domain name length is 254 characters.

Example

```
(config-dyndns)> domain support.ddns.net
DynDns::Profile: "_WEBADMIN": domain saved..
```

```
(config-dyndns)> no domain
ynDns::Profile: "_WEBADMIN" domain cleared.
```

History

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

3.19.2 dyndns profile password

Description Set password for access via DynDns.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> password <password>
(config-dyndns)> no password
```

² <http://www.dyndns.com>

³ <http://www.no-ip.com>

Arguments	Argument	Value	Description
	password	<i>String</i>	The password for authentication. Maximum password length is 64 characters.

Example

```
(config-dyndns)> password 123456789
DynDns::Profile: "_WEBADMIN": password saved.
```

```
(config-dyndns)> no password
DynDns::Profile: "_WEBADMIN" password cleared.
```

History

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

3.19.3 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.

3.19.4 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.
	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 <code>dyndns profile url</code> command).

Example

```
(config-dyndns)> type noip
DynDns::Profile: "_WEBADMIN": type saved.
```

```
(config-dyndns)> no type
DynDns::Profile: "_WEBADMIN": type cleared.
```

⁴ <https://account.dyn.com>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>

History	Version	Description
	2.00	The dyndns profile type command has been introduced.

3.19.5 dyndns profile update-interval

Description Set the address update interval for DynDns.
Command with **no** prefix cancels the ability to update.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dyndns)> update-interval <days> days [ <hours> hours ]
[ <minutes> minutes ] [ <seconds> seconds ]

(config-dyndns)> no update-interval
```

Arguments	Argument	Value	Description
	days	<i>Integer</i>	Interval time in days.
	hours	<i>Integer</i>	Interval time in hours.
	minutes	<i>Integer</i>	Interval time in minutes.
	seconds	<i>Integer</i>	Interval time in seconds.

Example

```
(config-dyndns)> update-interval 5 days 5 hours 5 minutes 5 seconds
DynDns::Profile: Interval is set to 450305 seconds.

(config-dyndns)> update-interval 5 days
DynDns::Profile: Interval is set to 432000 seconds.

(config-dyndns)> no update-interval
DynDns::Profile: Periodic registration disabled.
```

History	Version	Description
	2.03	The dyndns profile update-interval command has been introduced.

3.19.6 dyndns profile url

Description Set dynamic DNS service custom URL.

Prefix no Yes

Change settings Yes**Multiple input** No

Synopsis

```
(config-dyndns)> url <url>
(config-dyndns)> no url
```

Arguments

Argument	Value	Description
url	<i>String</i>	Custom URL of DNS service.

Example

```
(config-dyndns)> url http://members.dyndns.org/nic/update
DynDns::Profile: "_WEBADMIN": URL saved.
```

```
(config-dyndns)> no url
DynDns::Profile: "_WEBADMIN" URL cleared.
```

History

Version	Description
2.05	The dyndns profile url command has been introduced.

3.19.7 dyndns profile username

Description Set username for access via DynDns.**Prefix no** Yes**Change settings** Yes**Multiple input** No

Synopsis

```
(config-dyndns)> username <username>
(config-dyndns)> no username
```

Arguments

Argument	Value	Description
username	<i>String</i>	Username for authentication. Maximum name length is 64 characters.

Example

```
(config-dyndns)> username test@gmail.com
DynDns::Profile: "_WEBADMIN": username saved.
```

```
(config-dyndns)> no username
DynDns::Profile: "_WEBADMIN" username cleared.
```

History

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

3.20 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.

3.20.1 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.

3.20.2 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	<i>Integer</i>	Amount of failed requests. Can take values in the range from 2 to 8 inclusively.

Example

```
(ezconfig-check)> max-fails 5
```

```
Network::InternetChecker: A new maximum fail count set to 5.
```

```
(ezconfig-check)> no max-fails
```

```
Network::InternetChecker: The maximum fail count reset to the ►
default value (3).
```

History

Version	Description
2.00	The easyconfig check max-fails command has been introduced.

3.20.3 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	<i>Integer</i>	Check interval in seconds. Can take values in the range from 10 to 60 inclusively.

Example

```
(ezconfig-check)> period 20  
Network::InternetChecker: A new check period set to 20 seconds.
```

```
(ezconfig-check)> no period  
Network::InternetChecker: Check period reset to default (15 ►  
seconds).
```

History

Version	Description
2.00	The easyconfig check period command has been introduced.

3.21 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.

3.22 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.

3.23 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.

3.23.1 igmp-proxy fast-leave

Description Enable the [IGMP](#) fast-leave to immediately remove a port from the forwarding entry for a multicast group when the port receives a leave message.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(igmp-proxy)> fast-leave
(igmp-proxy)> no fast-leave
```

Example

```
(igmp-proxy)> fast-leave
Igmpp::Proxy: Enabled Fast Leave.

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

History

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

3.23.2 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
Igmpp::Proxy: Forced protocol: igmp-v1.

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

History

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

3.24 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.

3.25 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	<i>Interface</i>	Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command.

Example

```
(config)> interface [Tab]
```

Usage template:

```
interface {name}
```

Choose:

```

Pvc
Vlan
CdcEthernet
UsbModem
RealtekEthernet
AsixEthernet
Davicom
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 update.
------	-----------------

3.25.1 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.

3.25.2 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.

3.25.3 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.

3.25.4 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.

3.25.5 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	<i>String</i>	User name for authentication.

Example

```
(config-if)> authentication identity mylogin
Network::Interface::Supplicant: "PPTP0": identity saved.
```



```
(config-if)> no authentication identity
Network::Interface::Supplicant: "PPTP0": identity cleared.
```

History

Version	Description
2.00	The interface authentication identity command has been introduced.

3.25.6 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.

3.25.7 interface authentication mschap-v2

Description Enable MS-CHAPv2 authentication support.

Command with **no** prefix disables MS-CHAPv2.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure**Synopsis**`(config-if)> authentication mschap-v2``(config-if)> no authentication mschap-v2`**Example**`(config-if)> authentication mschap-v2`

Network::Interface::Supplicant: "PPTP0": authentication is ► unchanged.

`(config-if)> no authentication mschap-v2`

Network::Interface::Supplicant: "PPTP0": removed authentication: ► MS-CHAPv2.

History

Version	Description
2.00	The interface authentication mschap-v2 command has been introduced.

3.25.8 interface authentication pap

DescriptionEnable [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.

3.25.9 interface authentication password

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

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> authentication password <password>
(config-if)> no authentication password
```

Arguments

Argument	Value	Description
password	<i>String</i>	Password for authentication.

Example

```
(config-if)> authentication password Aihoi2cha1
Network::Interface::Supplicant: "PPTP0": password saved.
```

```
(config-if)> no authentication password
Network::Interface::Supplicant: "PPTP0": password cleared.
```

History

Version	Description
2.00	The interface authentication password command has been introduced.

3.25.10 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.

3.25.11 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.

3.25.12 interface authentication wpa-psk

Description

Specify the pre-agreed key for authentication via WPA-PSK protocol. It is possible to specify the key as a 256-bit hexadecimal number or as a string of

ASCII-characters. In the second case, the string is used as a code phrase to generate the key (passphrase).

Command with **no** prefix removes setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis

```
(config-if)> authentication wpa-psk <psk>
(config-if)> no authentication wpa-psk
```

Arguments

Argument	Value	Description
psk	<i>String</i>	Pre-agreed key in the form of a 256-bit hexadecimal number, which consists of 64 hexadecimal digits, or in the form of ASCII string of 8 to 63 characters length.

Example

```
(config-if)> authentication wpa-psk Eethaich9z
Network::Interface::Wifi: "WifiMaster1/AccessPoint0": WPA PSK set.
```

```
(config-if)> no authentication wpa-psk
Network::Interface::Wifi: "WifiMaster1/AccessPoint0": WPA PSK ►
removed.
```

History

Version	Description
2.00	The interface authentication wpa-psk command has been introduced.

3.25.13 interface auto-ssid

Description Generate a custom wireless network name (SSID) based on the router's MAC address.

Prefix no No

Change settings Yes

Multiple input No

Interface type WifiMaster

Synopsis

```
(config-if)> auto-ssid <template> <prefix>
```

Arguments

Argument	Value	Description
template	mac4	Template name — the last 4 or 6 digits of the MAC address to be added to the prefix.
	mac6	
prefix	<i>String</i>	Custom string at the user's choice.

Example

```
(config-if)> auto-ssid mac4 12313213
Network::Interface::AccessPoint: "WifiMaster0/AccessPoint0": ►
generated SSID "12313213207E".
```

```
(config-if)> auto-ssid mac6 12313213
Network::Interface::AccessPoint: "WifiMaster0/AccessPoint0": ►
generated SSID "1231321369207E".
```

History

Version	Description
3.08	The interface auto-ssid command has been introduced.

3.25.14 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.

3.25.15 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.

3.25.16 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.

3.25.17 interface beamforming explicit

Description Enable explicit [Beamforming](#) (eBF) for AP 5 GHz and AP 2.4 GHz. The feature can be used for 802.11ac clients only and is incompatible with other standards. By default, the setting is enabled.

Command with **no** prefix disables the explicit [Beamforming](#).

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** WiFiMaster

Synopsis

```
(config-if)> beamforming explicit [mu-mimo]
(config-if)> no beamforming explicit
```

Arguments

Argument	Value	Description
mu-mimo	<i>Keyword</i>	Control MU-MIMO flags for explicit Beamforming. Enable control of data flow for multiple users.

Example

```
(config-if)> beamforming explicit
Network::Interface::Rtx::WifiMaster: "WifiMaster1": explicit ►
beamforming and SU-MIMO enabled.
```

```
(config-if)> beamforming explicit mu-mimo
Network::Interface::Rtx::WifiMaster: "WifiMaster1": explicit ►
beamforming and MU-MIMO enabled.
```

```
(config-if)> no beamforming explicit
Network::Interface::Rtx::WifiMaster: "WifiMaster1": explicit ►
beamforming and MIMO disabled.
```

History

Version	Description
2.10	The interface beamforming explicit command has been introduced.

3.25.18 interface beamforming implicit

Description

Enable implicit *Beamforming* (iBF) for AP 5 GHz and AP 2.4 GHz. By default, the setting is disabled.

Command with **no** prefix disables the implicit *Beamforming*.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> beamforming implicit
```

```
(config-if)> no beamforming implicit
```

Example

```
(config-if)> beamforming implicit
Network::Interface::Rtx::WifiMaster: "WifiMaster1": implicit ►
beamforming enabled.
```

```
(config-if)> no beamforming implicit
Network::Interface::Rtx::WifiMaster: "WifiMaster1": implicit ►
beamforming disabled.
```

History

Version	Description
2.10	The interface beamforming implicit command has been introduced.

3.25.19 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.

3.25.20 interface channel

Description Set the radio channel (broadcasting frequency band) for wireless interfaces. Wi-Fi interfaces take integers from 1 to 14 (frequency range from 2.412 GHz to 2.484 GHz) and from 36 to 165 (frequency range from 5.180 GHz to 5.825 GHz) as channel numbers. By default, auto value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Radio

Synopsis

```
(config-if)> channel <channel>
(config-if)> no channel
```

Arguments

Argument	Value	Description
channel	number	Number of radio channel.

Argument	Value	Description
	auto	Radio channel number is detected automatically.

Example

```
(config-if)> channel 8
Network::Interface::Rtx::WifiMaster: "WifiMaster0": channel set ►
to 8.
```

```
(config-if)> channel 36
Network::Interface::Rtx::WifiMaster: "WifiMaster1": channel set ►
to 36.
```

```
(config-if)> no channel
Network::Interface::Rtx::WifiMaster: "WifiMaster0": auto channel ►
mode set.
```

History

Version	Description
2.00	The interface channel command has been introduced.

3.25.21 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.

3.25.22 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.
	80-plus-80	Expand the bandwidth up to 80+80 MHz.
	160	Expand the bandwidth up 160 MHz.

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.

3.25.23 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	<i>Integer</i>	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.

3.25.24 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	<i>Interface</i>	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.

3.25.25 interface chilli dns

Description

Set IP address of the DNS server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)> chilli dns <dns1> [ <dns2> ]
```

```
(config-if)> no chilli dns
```

Arguments

Argument	Value	Description
dns1	<i>IP address</i>	Address of primary DNS server.
dns2	<i>IP address</i>	Address of secondary DNS server.

Example

```
(config-if)> chilli dns 8.8.8.8 1.1.1.1  
Chilli::Interface: "Chilli0": DNS servers set to 8.8.8.8, 1.1.1.1.
```

```
(config-if)> no chilli dns  
Chilli::Interface: "Chilli0": DNS servers reset to default.
```

History	Version	Description
	2.10	The interface chilli dns command has been introduced.

3.25.26 interface chilli lease

Description Configure the lease time of the connected client IP addresses. By default, the value 3600 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli lease <lease>
(config-if)> no chilli lease
```

Arguments	Argument	Value	Description
	lease	<i>Integer</i>	Lease time in seconds. The maximum value is 259200.

Example

```
(config-if)> chilli lease 1000
Chilli::Interface: "Chilli0": lease has been set 1000 seconds.

(config-if)> no chilli lease
Chilli::Interface: "Chilli0": lease has been reset to default ►
(3600 seconds).
```

History	Version	Description
	2.11	The interface chilli lease command has been introduced.

3.25.27 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	<i>MAC address</i>	MAC address for authentication.
username	<i>String</i>	Username for authentication.
password	<i>String</i>	The password for authentication.

Example

```
(config-if)> interface Chilli0 chilli login 00:01:02:03:04:05  
Chilli::Interface: "Chilli0": sent login request for ►  
00:01:02:03:04:05
```

```
(config-if)> interface Chilli0 chilli login 00:01:02:03:04:05 ►  
username test password test  
Chilli::Interface: "Chilli0": sent login request for ►  
00:01:02:03:04:05
```

History

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

3.25.28 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	<i>MAC address</i>	MAC address of the registered client.
all	Keyword	Disable all MAC addresses.

Example

```
(config-if)> chilli logout 64:a2:22:51:b4:11
```

```
(config-if)> chilli logout all  
Chilli::Interface: "Chilli0": service restarted.
```


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

3.25.29 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.

3.25.30 interface chilli macpasswd

Description Set the password for MAC address authentication.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)>  chilli macpasswd <macpasswd>
(config-if)> no chilli macpasswd
```

Arguments

Argument	Value	Description
macpasswd	<i>String</i>	The user password.

Example

```
(config-if)> chilli macpasswd 1234567890
Chilli::Interface: "Chilli0": macpasswd set to "1234567890".
```

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

History

Version	Description
2.11	The interface chilli macpasswd command has been introduced.

3.25.31 interface chilli nasip

Description

Set *RADIUS* option NAS IP Address. Allows you to configure and use an arbitrary IP address.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)> chilli nasip (<address> | interface <wan> | auto)
```

```
(config-if)> no chilli nasip
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	Specific IP address of the server.
wan	<i>Interface</i>	IP address from the specified WAN interface.
auto	<i>Keyword</i>	IP address from the current WAN interface.

Example

```
(config-if)> chilli nasip 95.213.215.187
Chilli::Interface: "Chilli0": NAS IP address set to ►
"95.213.215.187".
```

```
(config-if)> chilli nasip interface ISP
Chilli::Interface: "Chilli0": NAS IP interface set to ►
"GigabitEthernet1".
```

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

```
(config-if)> no chilli nasip
Chilli::Interface: "Chilli0": NAS IP address cleared.
```

History

Version	Description
2.10	The interface chilli nasip command has been introduced.

3.25.32 interface chilli nasmac

Description Set MAC address for [RADIUS](#) Called-Station-ID attribute. By default, MAC address of the guest network is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)>  chilli nasmac <mac>
```

```
(config-if)> no chilli nasmac
```

Arguments

Argument	Value	Description
mac	<i>MAC address</i>	New MAC address for RADIUS Called-Station-ID.

Example

```
(config-if)> chilli nasmac 50:ff:20:00:1e:86
Chilli::Interface: "Chilli0": NAS MAC address set to ►
"50:ff:20:00:1e:86".
```

```
(config-if)> no chilli nasmac
Chilli::Interface: "Chilli0": NAS MAC address cleared.
```

History

Version	Description
2.11	The interface chilli nasmac command has been introduced.

3.25.33 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	<i>String</i>	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.

3.25.34 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	<i>String</i>	Address of first RADIUS server.
server2	<i>String</i>	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.

3.25.35 interface chilli radiusacctport

Description Set accounting UDP-port of *RADIUS* server. By default, value 1813 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Chilli

Synopsis

```
(config-if)> chilli radiusacctport <radiusacctport>
```

```
(config-if)> no chilli radiusacctport
```

Arguments

Argument	Value	Description
radiusacctport	<i>String</i>	The port number.

Example

```
(config-if)> chilli radiusacctport 1819
Chilli::Interface: "Chilli0": radiusacctport set to 1819.
```

```
(config-if)> no chilli radiusacctport
Chilli::Interface: "Chilli0": radiusacctport reset to default.
```

History

Version	Description
3.06	The interface chilli radiusacctport command has been introduced.

3.25.36 interface chilli radiusauthport

Description Set authentication UDP-port of *RADIUS* server. By default, value 1812 is used.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Chilli

Synopsis

```
(config-if)> chilli radiusauthport <radiusauthport>
```

```
(config-if)> no chilli radiusauthport
```

Arguments

Argument	Value	Description
radiusauthport	<i>String</i>	The port number.

Example

```
(config-if)> chilli radiusauthport 1820
```

Chilli::Interface: "Chilli0": radiusauthport set to 1820.

```
(config-if)> no chilli radiusauthport
```

Chilli::Interface: "Chilli0": radiusauthport reset to default.

History

Version	Description
3.06	The interface chilli radiusauthport command has been introduced.

3.25.37 interface chilli radiuslocationid

Description Set location identifier of *RADIUS* server. It should be in the format isocc=, cc=, ac=, network=.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Chilli

Synopsis

```
(config-if)> chilli radiuslocationid <radiuslocationid>
```

```
(config-if)> no chilli radiuslocationid
```

Arguments

Argument	Value	Description
radiuslocationid	<i>String</i>	Location identifier value.

Example

```
(config-if)> chilli radiuslocationid ►
isocc=,cc=,ac=,network=WiFiSYSTEM,
Chilli::Interface: "Chilli0": radiuslocationid set to ►
"isocc=,cc=,ac=,network=WiFiSYSTEM,".
```

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

History

Version	Description
2.10	The interface chilli radiuslocationid command has been introduced.

3.25.38 interface chilli radiuslocationname

Description

Set location name of *RADIUS* server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)> chilli radiuslocationname <radiuslocationname>
```

```
(config-if)> no chilli radiuslocationname
```

Arguments

Argument	Value	Description
radiuslocationname	<i>String</i>	Location name.

Example

```
(config-if)> chilli radiuslocationname MyHotSpot
Chilli::Interface: "Chilli0": radiuslocationname set to ►
"MyHotSpot".
```

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

History

Version	Description
2.10	The interface chilli radiuslocationname command has been introduced.

3.25.39 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	<i>String</i>	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.

3.25.40 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	<i>String</i>	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.

3.25.41 interface chilli uamallowed

Description

Specify the resource to which the client has access without first authenticating.

Command with **no** prefix removes the resource from the list. If you use no argument, the entire list of resources will be cleared.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Chilli

Synopsis

```
(config-if)> chilli uamallowed <uamallowed>
```

```
(config-if)> no chilli uamallowed [ <uamallowed> ]
```

Arguments

Argument	Value	Description
uamallowed	<i>String</i>	IP-address, URL or subnetwork.

Example

```
(config-if)> chilli uamallowed 188.166.114.0/24
Chilli::Interface: "Chilli0": "188.166.114.0/24" added to walled ►
garden.
```

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

```
(config-if)> no chilli uamallowed 188.166.114.0/24
Chilli::Interface: "Chilli0": "188.166.114.0/24" removed from ►
walled garden.
```

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

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

History

Version	Description
2.10	The interface chilli uamallowed command has been introduced.

3.25.42 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	<i>String</i>	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.

3.25.43 interface chilli uamhomepage

Description

Set URL of homepage to redirect unauthenticated users to.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Chilli

Synopsis

```
(config-if)> chilli uamhomepage <uamhomepage>
```

```
(config-if)> no chilli uamhomepage
```

Arguments

Argument	Value	Description
uamhomepage	<i>String</i>	Custom URL.

Example

```
(config-if)> chilli uamhomepage http://192.168.2.1/welcome.html
Chilli::Interface: "Chilli0": uamhomepage set to ►
"http://192.168.2.1/welcome.html".
```

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

History

Version	Description
2.10	The interface chilli uamhomepage command has been introduced.

3.25.44 interface chilli uamport

Description Set [TCP](#) port to bind to for authenticating clients. By default, value 3990 is used.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Chilli

Synopsis

```
(config-if)> chilli uamport <uamport>
```

```
(config-if)> no chilli uamport
```

Arguments

Argument	Value	Description
uamport	<i>Integer</i>	The port number.

Example

```
(config-if)> chilli uamport 3922
Chilli::Interface: "Chilli0": uamport set to 3922.
```

```
(config-if)> no chilli uamport
Chilli::Interface: "Chilli0": uamport reset to default.
```

History

Version	Description
2.10	The interface chilli uamport command has been introduced.

3.25.45 interface chilli uamsecret

Description

Set shared secret between [UAM](#) server and Chilli. The [UAM](#) secret is used to hash the challenge before password computation.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Chilli

Synopsis

```
(config-if)>  chilli uamsecret <uamsecret>
```

```
(config-if)> no chilli uamsecret
```

Arguments

Argument	Value	Description
uamsecret	<i>String</i>	A secret value.

Example

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

```
(config-if)> no chilli uamsecret
Chilli::Interface: "Chilli0": uamsecret set to "".
```

History

Version	Description
2.10	The interface chilli uamsecret command has been introduced.

3.25.46 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	<i>String</i>	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.

3.25.47 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.

3.25.48 interface connect

Description

Start the process of connecting to a remote node.

Command with **no** prefix terminates the connection.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

PPP, IP

Synopsis

```
(config-if)> connect [ via <via> ]
```

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

Arguments

Argument	Value	Description
via	<i>Interface</i>	Interface through which remote node is accessed. For PPPoE this option is mandatory.

Example

```
(config-if)> connect via ISP
```

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

History

Version	Description
2.00	The interface connect command has been introduced.

3.25.49 interface country-code

Description Assign to the interface a literal country code, which influences the set of radio channels. By default, RU value is used.

Prefix no No

Change settings Yes

Multiple input No

Interface type Radio

Synopsis `(config-if)> country-code <code>`

Arguments

Argument	Value	Description
code	<i>String</i>	The country code.

Example

```
(config-if)> country-code RU
Network::Interface::Rtx::WifiMaster: "WifiMaster0": country code ►
set.
```

History

Version	Description
2.00	The interface country-code command has been introduced.

3.25.50 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.

3.25.51 interface description

Description Assign arbitrary description to the specified network interface.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> description <description>
```

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

Arguments

Argument	Value	Description
description	<i>String</i>	Arbitrary description of the interface.

Example

```
(config-if)> description MYHOME
Network::Interface::Base: "Bridge0": description saved.
```

```
(config-if)> no description
Network::Interface::Base: "Bridge0": description saved.
```

History

Version	Description
2.00	The interface description command has been introduced.

3.25.52 interface dfs zero-wait

Description Enable zero-wait *DFS* for AP 5 GHz.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type	WiFiMaster				
Synopsis	<pre>(config-if)> dfs zero-wait</pre> <pre>(config-if)> no dfs zero-wait</pre>				
Example	<pre>(config-if)> dfs zero-wait</pre> <pre>Network::Interface::Rtx::WifiMaster: "WifiMaster1": DFS Zero ▶</pre> <pre>Wait enabled.</pre> <pre>(config-if)> no dfs zero-wait</pre> <pre>Network::Interface::Rtx::WifiMaster: "WifiMaster1": DFS Zero ▶</pre> <pre>Wait disabled.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>3.07</td><td>The interface dfs zero-wait command has been introduced.</td></tr> </tbody> </table>	Version	Description	3.07	The interface dfs zero-wait command has been introduced.
Version	Description				
3.07	The interface dfs zero-wait command has been introduced.				

3.25.53 interface down

Description	<p>Disable the network interface and persist the state “down” to the settings.</p> <p>Command with no prefix enables the network interface and deletes “down” from settings.</p>				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Synopsis	<pre>(config-if)> down</pre> <pre>(config-if)> no down</pre>				
Example	<pre>(config-if)> down</pre> <pre>Network::Interface::Base: "GigabitEthernet0/2": interface is down.</pre> <pre>(config-if)> up</pre> <pre>Network::Interface::Base: "GigabitEthernet0/2": interface is up.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>2.00</td><td>The interface down command has been introduced.</td></tr> </tbody> </table>	Version	Description	2.00	The interface down command has been introduced.
Version	Description				
2.00	The interface down command has been introduced.				

3.25.54 interface downlink-mumimo

Description Enable the downlink (explicit) *Beamforming* (eBF) MU-MIMO. The feature can be used for 802.11ac clients only and is incompatible with other standards. The setting cannot be enabled unless *interface beamforming explicit* is set.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFiMaster

Synopsis

```
(config-if)> downlink-mumimo
(config-if)> no downlink-mumimo
```

Example

```
(config-if)> downlink-mumimo
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ac/ax ►
downlink-mumimo enabled.

(config-if)> no downlink-mumimo
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ac/ax ►
downlink-mumimo disabled.
```

History

Version	Description
3.05	The interface downlink-mumimo command has been introduced.

3.25.55 interface downlink-ofdma

Description Enable 802.11ax downlink *OFDMA*. By default, the feature is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFiMaster

Synopsis

```
(config-if)> downlink-ofdma
(config-if)> no downlink-ofdma
```

Example

```
(config-if)> downlink-ofdma
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ax ►
downlink-ofdma enabled.
```

```
(config-if)> no downlink-ofdma
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ax ►
downlink-ofdma disabled.
```

History

Version	Description
3.07	The interface downlink-ofdma command has been introduced.

3.25.56 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.

3.25.57 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.

3.25.58 interface dyndns profile

Description Assign the DynDns profile to the interface. Profile must be created and customized with [dyndns profile](#) commands before execution.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> dyndns profile <profile>
(config-if)> no dyndns profile
```

Arguments

Argument	Value	Description
profile	<i>String</i>	The name of DynDns profile.

Example

```
(config-if)> dyndns profile TEST
DynDns::Profile: Interface set.
```

```
(config-if)> no dyndns profile TEST
DynDns::Profile: Interface removed.
```

History

Version	Description
2.02	The interface dyndns profile command has been introduced.

3.25.59 interface dyndns update

Description

Update IP address for DynDns manually. By default command works in accordance with the policy of the DynDns service provider, that is not allows to update too often. Using the keyword **force** allows you to update excluding policy of the service provider.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> dyndns update [ force ]
```

Arguments

Argument	Value	Description
force	<i>Keyword</i>	Not take into account the update rate recommended by service provider.

Example

```
(config-if)> dyndns update
```

History

Version	Description
2.00	The interface dyndns update command has been introduced.

3.25.60 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.

3.25.61 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.

3.25.62 interface encryption key

Description Specify the [WEP](#) encryption keys. Depending on the bit, the key can be standard 64-bit [WEP](#) uses a 40 bit key (also known as WEP-40), or 128-bit [WEP](#) uses a 26 hexadecimal characters (13 characters ASCII). Overall, there can be 1 to 4 encryption keys, with one of them default key must be assigned.

Command with **no** prefix removes key.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type WiFi

Synopsis

```
(config-if)> encryption key <id> (<value> [default] | default)
(config-if)> no encryption key <id>
```

Arguments

Argument	Value	Description
id	<i>Integer</i>	The key number. Overall, up to 4 keys could be specified.
value	<i>String</i>	The key value as a hexadecimal number, consisting of 10 or 26 digits.
default	<i>Keyword</i>	Indicates that this key will be used by default.

Example

```
(config-if)> encryption key 1 1231231234
Network::Interface::Wifi: "WifiMaster0/AccessPoint0": WEP key 1 ► set.
```

```
(config-if)> no encryption key 1
Network::Interface::Wifi: "WifiMaster0/AccessPoint0": WEP key 1 ► removed.
```

History

Version	Description
2.00	The interface encryption key command has been introduced.

3.25.63 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.

3.25.64 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.

3.25.65 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
```

Argument	Value	Description
hold-down	<i>Integer</i>	Timer value in seconds. Can take values in the range from 0 to 60. If timer is set to 0, the setting is disabled.

Example

```
(config-if)> encryption tkip hold-down 10
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
hold-down interval is 10 sec.

(config-if)> no encryption tkip hold-down
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
hold-down interval is reset to default (60 sec.).
```

Version	Description
3.08	The interface encryption tkip hold-down command has been introduced.

3.25.66 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.

3.25.67 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.

3.25.68 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.

3.25.69 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.

3.25.70 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.

3.25.71 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	<i>String</i>	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.

3.25.72 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>`

Argument	Value	Description
iccid	<i>String</i>	The eSIM profile identifier.

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

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

3.25.73 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>`

Argument	Value	Description
iccid	<i>String</i>	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.

3.25.74 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 <qr code>`

Arguments

Argument	Value	Description
qr code	<i>String</i>	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.

3.25.75 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.

3.25.76 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>`

Argument	Value	Description
iccid	<i>String</i>	The eSIM profile identifier.

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

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

3.25.77 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]`

Argument	Value	Description
send	<i>Keyword</i>	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.

3.25.78 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	<i>Interface</i>	The name of an AccessPoint interface on the WifiMaster0 2.4 GHz. You can see the list of available interfaces with help of follow [Tab] command.

Example

```
(config-if)> follow WifiMaster0/AccessPoint0
Network::Interface::AccessPoint: "WifiMaster1/AccessPoint0": set ►
to follow WifiMaster0/AccessPoint0.
```

History

Version	Description
3.07	The interface follow command has been introduced.

3.25.79 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.

3.25.80 interface ft mdid

Description

Set Mobility Domain ID for **FT**. By default, KN value is used.

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

Prefix no

Yes

Change settings Yes**Multiple input** No**Interface type** AccessPoint

Synopsis

```
(config-if)> ft mdid <mdid>
(config-if)> no ft mdid
```

Arguments	Argument	Value	Description
	mdid	<i>String</i>	The value of Mobility Domain ID. Consists of 2 ASCII symbols.

Example

```
(config-if)> ft mdid 1F
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition MDID set to "1F".

(config-if)> no ft mdid
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
fast transition MDID reset to default.
```

History	Version	Description
	2.13	The interface ft mdid command has been introduced.

3.25.81 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.

3.25.82 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](#), then 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.

3.25.83 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	<code>(config-if)> iapp auto</code>				
Example	<pre>(config-if)> iapp auto Network::Interface::Rtx::Iapp: Bridge0 autoconfigured.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>3.03</td><td>The interface iapp auto command has been introduced.</td></tr> </tbody> </table>	Version	Description	3.03	The interface iapp auto command has been introduced.
Version	Description				
3.03	The interface iapp auto command has been introduced.				

3.25.84 interface iapp key

Description	<p>Assign the <i>IAPP</i> Mobile Domain key for successful synchronization between Access Points where <i>FT</i> works (interface ft enable command). Access Points must belong to the same IP-subnet. By default, the key is not assigned.</p> <p>Command with no prefix removes key value.</p>								
Prefix no	Yes								
Change settings	Yes								
Multiple input	No								
Interface type	Bridge								
Synopsis	<pre>(config-if)> iapp key <key></pre> <pre>(config-if)> no iapp key</pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>key</td><td>String</td><td>The value of <i>IAPP</i> key. Maximum key length is 64 characters.</td></tr></table>			Argument	Value	Description	key	String	The value of <i>IAPP</i> key. Maximum key length is 64 characters.
Argument	Value	Description							
key	String	The value of <i>IAPP</i> key. Maximum key length is 64 characters.							
Example	<pre>(config-if)> iapp key 11223344556677</pre> <p>Network::Interface::Rtx::Iapp: Bridge0 key applied.</p> <pre>(config-if)> no iapp key</pre> <p>Network::Interface::Rtx::Iapp: Bridge0 key cleared.</p>								
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.13</td><td>The interface iapp key command has been introduced.</td></tr></table>			Version	Description	2.13	The interface iapp key command has been introduced.		
Version	Description								
2.13	The interface iapp key command has been introduced.								

3.25.85 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.

3.25.86 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.

3.25.87 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.

3.25.88 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.

3.25.89 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	<i>Interface</i>	Name or alias of the Ethernet-interface that should be plugged into the bridge.

Example

```
(config-if)> include ISP
Network::Interface::Bridge: "Bridge0": ISP included.

(config-if)> no include
Network::Interface::Bridge: "Bridge0": removed ISP.
```


History

Version	Description
2.00	The interface include command has been introduced.

3.25.90 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	<i>Interface</i>	Name or alias of the Ethernet-interface that should be plugged into the bridge.

Example

```
(config-if)> inherit GigabitEthernet0/Vlan3
Network::Interface::Bridge: "Bridge1": GigabitEthernet0/Vlan3 ►
inherited in Bridge1.
```

```
(config-if)> no inherit
Network::Interface::Bridge: "Bridge1": inherit removed.
```

History

Version	Description
2.00	The interface inherit command has been introduced.

3.25.91 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	<i>String</i>	List of filtering rules as previously created using access-list command.
direction	in	Apply filtering to incoming packets.
	out	Apply filtering to outgoing packets.

Example

```
(config-if)> ip access-group BLOCK in
Network::Acl: Input "BLOCK" access list added to "CdcEthernet1".
```

```
(config-if)> ip access-group BLOCK out
Network::Acl: Output "BLOCK" access list added to "CdcEthernet1".
```

```
(config-if)> no ip access-group BLOCK in
Network::Acl: "BLOCK" access group deleted from "CdcEthernet1".
```

```
(config-if)> no ip access-group
Network::Acl: All access groups deleted from "CdcEthernet1".
```

History

Version	Description
2.00	The interface ip access-group command has been introduced.

3.25.92 interface ip address

Description Change the IP address and the mask of the network interface. If the address automatic configuration service is running on the interface, for instance,

DHCP client, (see [interface ip address dhcp](#)), then the manually set address can be overwritten.

Command with **no** prefix resets the address to 0.0.0.0.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> ip address <address> <mask>
```

```
(config-if)> no ip address
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	The network interface address.
mask	<i>IP-mask</i>	The network interface mask. There are two ways to specify the mask: the canonical form (for example, 255.255.255.0) and the prefix with bit length (for example, /24).

Example

The network address, defined by the IP address and mask, can 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.

3.25.93 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.

3.25.94 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	<i>Integer</i>	The value of TTL changing. Can take values in the range from 1 to 255 inclusively.

Example

```
(config-if)> ip adjust-ttl 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 .

3.25.95 interface ip adjust-ttl send

Description

Modify the TTL for all outbound packets on the interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-if)> ip adjust-ttl send <send>
```

```
(config-if)> no ip adjust-ttl send
```

Arguments

Argument	Value	Description
send	<i>Integer</i>	The value of TTL changing. Can take values in the range from 1 to 255 inclusively.

Example

```
(config-if)> ip adjust-ttl send 65
Network::Interface::Ip: "CdcEthernet1": outgoing TTL set to 65.
```

```
(config-if)> no ip adjust-ttl send
Network::Interface::Ip: "CdcEthernet1": outgoing TTL settings ►
removed.
```

History

Version	Description
2.09	The interface ip adjust-ttl send command has been introduced.

3.25.96 interface ip alias

Description

Assign an additional IP address and mask to the network interface (alias).

Command with **no** prefix resets the specified alias to 0.0.0.0. If you use no arguments, the entire list of aliases will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input Yes**Interface type** IP, Ethernet

Synopsis

```
(config-if)> ip alias <address> <mask>
```

```
(config-if)> no ip alias [ <address> <mask> ]
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	Additional address of the network interface.
mask	<i>IP-mask</i>	Additional mask of the network interface. There are two ways to specify the mask: the canonical form (for example, 255.255.255.0) and the prefix with bit length (for example, /24).

Example

```
(config-if)> ip alias 192.168.1.88/24
Network::Interface::Ip: "WifiMaster1/WifiStation0": alias 0 is ►
192.168.1.88/24.
```

```
(config-if)> no ip alias 192.168.1.88/24
Network::Interface::Ip: "WifiMaster1/WifiStation0": alias 0 reset ►
to 0.0.0.0/0.
```

```
(config-if)> no ip alias
Network::Interface::Ip: "WifiMaster1/WifiStation0": all aliases ►
removed.
```

History

Version	Description
2.00	The interface ip alias command has been introduced.

3.25.97 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.

3.25.98 interface ip dhcp client class-id

Description

Specify the device vendor name where *DHCP* client is running (dhcp option 60).

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-if)> ip dhcp client class-id <class>
```

```
(config-if)> no ip dhcp client class-id
```

Arguments

Argument	Value	Description
class	<i>String</i>	Vendor class name, enclosed in double quotes.

Example

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

```
(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.

3.25.99 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.

3.25.100 interface ip dhcp client displace

Description Displace static address of *what* if it conflicts with an address from DHCP client of main interface.

This command is executed automatically when you connect the USB Ethernet adapter. After that the configuration will be saved and device will be restarted.

Command with **no** prefix cancels the displacement for the specified interface.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client displace <what> [ check-session ]
(config-if)> no ip dhcp client displace <what> [ check-session ]
```


Arguments

Argument	Value	Description
what	<i>Interface</i>	Name or alias of the interface whose static address will be displaced.
check-session	<i>Keyword</i>	With active SCGI sessions, it does not allow rebooting and changing the router's network address. By default, command is added to default-config.

Example

```
(config-if)> ip dhcp client displace Home
Dhcp::Client: ISP added "Home" displacement.
```

```
(config-if)> ip dhcp client displace Home check-session
Dhcp::Client: ISP added "Home" displacement.
```

```
(config-if)> no ip dhcp client displace Home
Dhcp::Client: ISP deleted "Home" displacement.
```

```
(config-if)> no ip dhcp client displace Home check-session
Dhcp::Client: ISP deleted "Home" displacement.
```

History

Version	Description
2.03	The interface ip dhcp client displace command has been introduced.
2.15	Argument check-session was added.

3.25.101 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.

3.25.102 interface ip dhcp client fallback

Description

Set static IP address in case of DHCP errors.

Command with **no** prefix cancels setting and sets 0.0.0.0. address.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-if)> ip dhcp client fallback <type>
```

```
(config-if)> no ip dhcp client fallback
```

Arguments

Argument	Value	Description
type	<i>String</i>	The type of IP address. Currently implemented only one type — static.

Example

```
(config-if)> ip dhcp client fallback static
Dhcp::Client: A DHCP address fallback is static.
```

```
(config-if)> no ip dhcp client fallback
Dhcp::Client: A DHCP address fallback set to zero for "ISP".
```

History

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

3.25.103 interface ip dhcp client hostname

Description

Assign a host name which is sent in DHCP-request.

Command with **no** prefix resets the host name to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client hostname <hostname>
(config-if)> no ip dhcp client hostname
```

Argument	Value	Description
hostname	<i>String</i>	The host name to assign.

Example

```
(config-if)> ip dhcp client hostname MYHOME
Dhcp::Client: ISP DHCP client hostname is set to MYHOME.

(config-if)> no ip dhcp client hostname
Dhcp::Client: ISP DHCP client hostname is reset to default (HOME).
```

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

3.25.104 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.
```

Version	Description
2.00	The interface ip dhcp client name-servers command has been introduced.

3.25.105 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.

3.25.106 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.

3.25.107 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.

3.25.108 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.

Argument	Value	Description
	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.

3.25.109 interface ip global

Description

Set property “global” with a parameter to the interface. This property is necessary to configure the default route, DynDNS client and NAT functioning. Can represent global-interfaces as leading to the global network (the Internet).

Property “global” affects the interface priority in setting the default route. The higher the priority the more desirable it is for the user to access the global network through the specified interface. Internet access backup (WAN backup) functionality is using priority “global”.

By default, setting is disabled.

Command with **no** prefix removes property.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> ip global (<priority> | order <order> | auto)
```

```
(config-if)> no ip global
```

Arguments

Argument	Value	Description
priority	<i>Integer</i>	Interface priority to configure the default route. Can take values in the range from 1 to 65534.
order	<i>Integer</i>	Relative priority between interfaces. It can take values in the range from 0 to 65534, but not more than the number of global interfaces.
auto	<i>Keyword</i>	Automatic priority calculation of the interface. The interface is located near the end of the list, but above order X.

Example

```
(config-if)> ip global 10
Network::Interface::IP: "L2TP0": global priority is 10.
```

```
(config-if)> ip global order 0
Network::Interface::IP: "L2TP0": order is 1.
```

```
(config-if)> ip global auto
Network::Interface::IP: Global priority recalculated.
```

```
(config-if)> no ip global
Network::Interface::IP: "L2TP0": global priority cleared.
```

History

Version	Description
2.00	The interface ip global command has been introduced.
2.09	The order and auto arguments were added.

3.25.110 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	<i>Integer</i>	<i>MRU</i> value.

Example

```
(config-if)> ip mru 1492
Network::Interface::Ppp: "PPPoE0": MRU saved.
```

```
(config-if)> no ip mru
Network::Interface::Ppp: "PPPoE0": MRU reset to default.
```

History

Version	Description
2.00	The interface ip mru command has been introduced.

3.25.111 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	<i>Integer</i>	<i>MTU</i> 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.

3.25.112 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.

3.25.113 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.

3.25.114 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	<i>IP address</i>	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.

3.25.115 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	<i>Keyword</i>	Set the upper limit of MSS , equal to the minimum MTU along the path to the remote peer.
mss	<i>Integer</i>	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.

3.25.116 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.

3.25.117 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.

3.25.118 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.

3.25.119 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.

3.25.120 interface ipcp vj

Description Enable compression of TCP/IP headers by Van Jacobson's method. By default, the setting is disabled.

Command with **no** prefix disables compression.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> ipcp vj [cid]
(config-if)> no ipcp vj
```

Arguments

Argument	Value	Description
cid	<i>Keyword</i>	Enable compression of Connection ID into headers.

Example

```
(config-if)> ipcp vj cid
VJ compression enabled.
```

```
(config-if)> no ipcp vj
VJ compression disabled.
```

History

Version	Description
2.03	The interface ipcp vj command has been introduced.

3.25.121 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.

3.25.122 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, <i>PFS</i> is mandatory, priority is given to AES256 and SHA1.
	weak-pfs	The same as weak, but for the second phase <i>PFS</i> group 1 and 2 is enabled.
	normal-pfs	The same as normal, but for the second phase <i>PFS</i> group 2 and 5 is enabled.
	normal-3des-pfs	The same as normal-3des, but for the second phase <i>PFS</i> group 5 and 14 is enabled.

Argument	Value	Description
	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.

3.25.123 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.

3.25.124 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.

3.25.125 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.

3.25.126 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.

3.25.127 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.

3.25.128 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	<i>String</i>	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.

3.25.129 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	<i>Integer</i>	Lifetime of <i>IPSec</i> transformation in seconds. Can take values in the range from 60 to 2147483647.

Example

```
(config-if)> ipsec 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.

3.25.130 interface ipsec proposal local-id

Description Set custom local identifier for [IKE](#).
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> ipsec proposal local-id <local-id>
(config-if)> no ipsec proposal local-id
```

Arguments

Argument	Value	Description
local-id	<i>String</i>	IP address or domain name of local host.

Example

```
(config-if)> ipsec proposal local-id 192.168.8.4
Network::Interface::Secure: Set IKE local ID to "192.168.8.4".
```

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

History

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

3.25.131 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	<i>String</i>	IP address or domain name of remote host.

Example

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

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

History

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

3.25.132 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	<i>Integer</i>	Lifetime of <i>IPSec</i> transformation in seconds. Can take values in the range from 60 to 2147483647.

Example

```
(config-if)> ipsec transform-set lifetime 222222
Network::Interface::Secure: IPsec ESP transform-set lifetime set ►
to 222222 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.

3.25.133 interface ipv6 address

Description

Configure an IPv6 address on the interface. If the argument is **auto**, address is autoconfigured. Passing a literal address as an argument will assign it statically.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-if)> ipv6 address ( <address> | <block> | auto )
```

```
(config-if)> no ipv6 address [ <address> | <block> | auto ]
```

Arguments

Argument	Value	Description
address	<i>IPv6 address</i>	The network interface address.
block	<i>IPv6 address</i>	The network interface address with mask.
auto	<i>Keyword</i>	Enable stateless autoconfiguration.

Example

```
(config-if)> ipv6 address 2a01:291:2:612:52ff:20ff:fe00:1e87
Network::Interface::Ip6: "GigabitEthernet1": added static address ►
2a01:291:2:612:52ff:20ff:fe00:1e87.
```

```
(config-if)> ipv6 address 2001:db8::1
Network::Interface::Ip6: "GigabitEthernet1": added static address ►
2001:db8::1.
```

```
(config-if)> ipv6 address fd08:a648:e303::3/64
Network::Interface::Ip6: "GigabitEthernet1": added static address ►
fd08:a648:e303::3/64.
```

```
(config-if)> no ipv6 address 2a01:291:2:612:52ff:20ff:fe00:1e87
Network::Interface::Ip6: "GigabitEthernet1": removed static ►
address 2a01:291:2:612:52ff:20ff:fe00:1e87.
```

```
(config-if)> no ipv6 address
Network::Interface::Ip6: "GigabitEthernet1": cleared addresses.
```

History

Version	Description
2.00	The interface ipv6 address command has been introduced.

3.25.134 interface ipv6 dhcp client pd hint**Description**

Configure DHCPv6 client prefix delegation hint.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> ipv6 dhcp client pd hint <prefix>
```

```
(config-if)> no ipv6 dhcp client pd hint
```

Arguments

Argument	Value	Description
prefix	<i>Prefix</i>	Requested IPv6 prefix or only its length if specified as <code>::/length</code> .

Example

```
(config-if)> ipv6 dhcp client pd hint fd08:a648:e303::/64  
Ip6::Dhcp::Client: "GigabitEthernet1": set a prefix delegation ►  
hint to "fd08:a648:e303::/64".
```

```
(config-if)> ipv6 dhcp client pd hint ::/64  
Ip6::Dhcp::Client: "GigabitEthernet1": set a prefix delegation ►  
hint to "::/64".
```

```
(config-if)> no ipv6 dhcp client pd hint  
Ip6::Dhcp::Client: "GigabitEthernet1": reset prefix delegation ►  
hint.
```

History

Version	Description
4.01	The interface ipv6 dhcp client pd hint command has been introduced.

3.25.135 interface ipv6 id**Description**

Set the way of IPv6 interface identifier generation. By default, the eui64 value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> ipv6 id ( <suffix> | eui64 | random )
```

```
(config-if)> no ipv6 id
```

Arguments

Argument	Value	Description
suffix	<i>Suffix</i>	The static suffix.
eui64	<i>Keyword</i>	The identifier is based on the interface MAC address.
random	<i>Keyword</i>	Random generation of the interface identifier.

Example

```
(config-if)> ipv6 id ::2  
Network::Interface::Ip6: "Bridge0": interface ID is set to ::2.
```

```
(config-if)> ipv6 id eui64  
Network::Interface::Ip6: "Bridge0": interface ID is set to eui64.
```

```
(config-if)> ipv6 id random  
Network::Interface::Ip6: "Bridge0": interface ID is set to random.
```

```
(config-if)> no ipv6 id  
Network::Interface::Ip6: "Bridge0": interface ID is reset to ►  
default value.
```

History

Version	Description
4.01	The interface ipv6 id command has been introduced.

3.25.136 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	<i>Keyword</i>	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.

3.25.137 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	<i>Keyword</i>	Enable prefix delegation.
prefix	<i>Prefix</i>	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.

3.25.138 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.

3.25.139 interface lcp acfc

Description Enable compression negotiation of the [Data Link Layer Address and Control fields](#). By default, the feature is disabled.

Command with **no** prefix disables this option and all the remote peer requests for the [ACFC](#) negotiation will be rejected.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> lcp acfc [cid]
(config-if)> no lcp acfc
```

Arguments	Argument	Value	Description
	cid	<i>Keyword</i>	Enable compression of Connection ID into headers.

Example

```
(config-if)> lcp acfc cid
ACFC compression enabled

(config-if)> no lcp acfc cid
ACFC compression disabled
```

History	Version	Description
	2.03	The interface lcp acfc command has been introduced.

3.25.140 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	<i>Integer</i>	Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply.
count	<i>Integer</i>	The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated.
adaptive	<i>Keyword</i>	Pppd will send LCP echo-request frames only if no traffic was received from the peer since the last echo-request was sent.

Example

```
(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.

3.25.141 interface lcp pfc

Description Enable compression negotiation of the *PPP Protocol field*. By default, the feature is disabled.

Command with **no** prefix disables this option and all the remote peer requests for the *PFC* negotiation will be rejected.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> lcp pfc [cid]
(config-if)> no lcp pfc
```

Arguments

Argument	Value	Description
cid	<i>Keyword</i>	Enable compression of Connection ID into headers.

Example

```
(config-if)> lcp pfc cid
PFC compression enabled
```

```
(config-if)> no lcp pfc cid
PFC compression disabled
```

History

Version	Description
2.03	The interface lcp pfc command has been introduced.

3.25.142 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.

3.25.143 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.

3.25.144 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.

3.25.145 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.

3.25.146 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	<i>MAC address</i>	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 .

3.25.147 interface mac address factory

Description Set the factory MAC address to the interface.

Prefix no No

Change settings Yes

Multiple input No

Interface type MAC

Synopsis `(config-if)> mac address factory <name>`

Arguments

Argument	Value	Description
name	lan	"LAN" MAC address will be assigned to the interface.
	wan	"WAN" MAC address will be assigned to the interface.
	wlan5	"WLAN5" MAC address will be assigned to the interface.

Example

```
(config-if)> mac address factory lan
Core::System::UConfig: done.
```

History

Version	Description
2.00	The interface mac address factory command has been introduced.

3.25.148 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	<i>MAC address</i>	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.

3.25.149 interface mac bssid

Description Specify the Access Point's MAC address to connect to [WISP](#).Command with **no** prefix removes the MAC address.**Prefix no** Yes**Change settings** Yes**Multiple input** No**Interface type** WifiStation

Synopsis

```
(config-if)> mac bssid <bssid>
```

```
(config-if)> no mac bssid
```

Arguments

Argument	Value	Description
bssid	<i>MAC address</i>	MAC address of WISP Access Point.

Example

```
(config-if)> mac bssid 56:ff:20:00:1e:11
Network::Interface::WifiStation: BSSID set to 56:ff:20:00:1e:11.
```

```
(config-if)> no mac bssid
Network::Interface::WifiStation: BSSID cleared.
```

History

Version	Description
2.13	The interface mac bssid command has been introduced.

3.25.150 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.

3.25.151 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.

3.25.152 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.

3.25.153 interface openconnect allow-basic-auth

Description

Configure [HTTP Basic authentication](#)¹³ for the [OpenConnect](#) connection.

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

¹³ <https://www.infradead.org/openconnect/manual.html>

Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Interface type	OpenConnect				
Synopsis	<pre>(config-if)> openconnect allow-basic-auth</pre> <pre>(config-if)> no openconnect allow-basic-auth</pre>				
Example	<pre>(config-if)> openconnect allow-basic-auth</pre> <pre>OpenConnect::Interface: "OpenConnect0": enabled HTTP Basic auth.</pre> <pre>(config-if)> no openconnect allow-basic-auth</pre> <pre>OpenConnect::Interface: "OpenConnect0": disabled HTTP Basic auth.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>5.00</td><td>The interface openconnect allow-basic-auth command has been introduced.</td></tr> </tbody> </table>	Version	Description	5.00	The interface openconnect allow-basic-auth command has been introduced.
Version	Description				
5.00	The interface openconnect allow-basic-auth command has been introduced.				

3.25.154 interface openconnect authgroup

Description	Configure authgroup setting for the OpenConnect . 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	<pre>(config-if)> openconnect authgroup <i>authgroup</i></pre> <pre>(config-if)> no openconnect authgroup</pre>							
Arguments	<table border="1"> <thead> <tr> <th>Argument</th><th>Value</th><th>Description</th></tr> </thead> <tbody> <tr> <td>authgroup</td><td><i>String</i></td><td>The group name.</td></tr> </tbody> </table>		Argument	Value	Description	authgroup	<i>String</i>	The group name.
Argument	Value	Description						
authgroup	<i>String</i>	The group name.						
Example	<pre>(config-if)> openconnect authgroup MYEXAMPLE</pre> <pre>OpenConnect::Interface: "OpenConnect0": set auth group ► "MYEXAMPLE".</pre>							

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

History

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

3.25.155 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.

3.25.156 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.
```

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.

3.25.157 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
```

¹⁴ <https://www.infradead.org/openconnect/anyconnect.html>

¹⁵ <https://www.infradead.org/openconnect/fortinet.html>

¹⁶ <https://www.infradead.org/openconnect/juniper.html>

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.

3.25.158 interface openvpn connect

Description

Set interface for OpenVPN connection. If you use no argument, connection is set via any interface.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

OpenVPN

Synopsis

```
(config-if)> openvpn connect [ via <via> ]
```

```
(config-if)> openvpn connect
```

Arguments

Argument	Value	Description
via	<i>Interface</i>	Full interface name or an alias.

Example

```
(config-if)> openvpn connect via ISP
Network::Interface::OpenVpn: "OpenVPN0": set connection via ISP.
```

```
(config-if)> openvpn connect
Network::Interface::OpenVpn: "OpenVPN0": set connection via any ►
interface.
```

History

Version	Description
2.10	The interface openvpn connect command has been introduced.

3.25.159 interface openvpn name-servers

Description	<p>Use DNS server addresses which are received via OpenVPN server. By default, the function is enabled.</p> <p>Command with no prefix denies using of DNS server addresses which are received via OpenVPN server.</p>				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Interface type	OpenVPN				
Synopsis	<pre>(config-if)> openvpn name-servers</pre> <pre>(config-if)> no openvpn name-servers</pre>				
Example	<pre>(config-if)> openvpn name-servers</pre> <p>Network::Interface::OpenVpn: "OpenVPN0": automatic name servers ► via tunnel are enabled.</p> <pre>(config-if)> no openvpn name-servers</pre> <p>Network::Interface::OpenVpn: "OpenVPN0": automatic name servers ► via tunnel are disabled.</p>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>3.06</td><td>The interface openvpn name-servers command has been introduced.</td></tr> </tbody> </table>	Version	Description	3.06	The interface openvpn name-servers command has been introduced.
Version	Description				
3.06	The interface openvpn name-servers command has been introduced.				

3.25.160 interface peer

Description	<p>Specify ID of the remote peer to which the PPP connection will be used. A more precise meaning of configuration depends on interface type. For example, for PPPoE the interface peer command specifies the name of access hub, for PPTP — remote host name or IP address, and for SSTP — specifies a remote server with port 443 or another.</p> <p>Command with no prefix cancels the setting.</p>
Prefix no	Yes
Change settings	Yes
Multiple input	No
Interface type	PPP
Synopsis	<pre>(config-if)> peer <peer></pre>

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

Arguments

Argument	Value	Description
peer	<i>String</i>	Remote connection point ID or remote server address <code>host.example.net:port</code> . By default, port number is 443.

Example

```
(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.

3.25.161 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.

3.25.162 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
```

Argument	Value	Description
profile	<i>String</i>	Profile name to assign.

Example

```
(config-if)> ping-check profile test
PingCheck::Client: Set ping-check profile for interface "ISP".
```

```
(config-if)> no ping-check profile
PingCheck::Client: Reset ping-check profile for interface "ISP".
```

Version	Description
2.04	The interface ping-check profile command has been introduced.

3.25.163 interface ping-check restart

Description Enable interface restart if *Ping Check* is triggered (Internet is not available on interface). By default the function is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> ping-check restart [ <interface> ]
```

```
(config-if)> no ping-check restart
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Full name or alias of the interface to be restarted when the <i>Ping Check</i> on the bound interface is triggered. If this argument is not specified, the interface bound with <i>Ping Check</i> profile will be restarted.

Example

```
(config-if)> ping-check restart
PingCheck::Client: Enabled "PPPoE0" interface restart.
```

```
(config-if)> ping-check restart ISP
PingCheck::Client: Enabled "ISP" interface restart for "PPPoE0".
```

```
(config-if)> no ping-check restart
PingCheck::Client: Remove restart settings for "PPPoE0".
```

History

Version	Description
3.04	The interface ping-check restart command has been introduced.

3.25.164 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	<i>Keyword</i>	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.

3.25.165 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	<i>Integer</i>	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.

3.25.166 interface power

Description Set the transmitter power for the radio interface. Transmitter power is limited by the hardware capabilities and state laws applicable to radio broadcast. This command allows one to only reduce the power of the transmitter relative to its maximum power, such as to decrease potential interference with other devices in this range/band. By default, the setting value of the power is set to 100.

Prefix no No

Change settings Yes

Multiple input No

Interface type Radio

Synopsis `(config-if)> power <power>`

Argument	Value	Description
power	<i>Integer</i>	The transmitter power as the percentage of the maximum power (from 1 to 100).

Example `(config-if)> power 1`
 Network::Interface::Rtx::WifiMaster: "WifiMaster0": TX power ► level set.

Version	Description
2.00	The interface power command has been introduced.

3.25.167 interface pppoe service

Description Specify PPPoE service. If service is not defined, then PPPoE client will be connected to an arbitrary service.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPPoE

Synopsis `(config-if)> pppoe service <service>`
`(config-if)> no pppoe service`

Arguments

Argument	Value	Description
service	<i>String</i>	Name of PPPoE service.

Example

```
(config-if)> pppoe service TEST
Network::Interface::Pppoe: "PPPoE0": service set.
```

```
(config-if)> no pppoe service
Network::Interface::Pppoe: "PPPoE0": service removed.
```

History

Version	Description
2.05	The interface pppoe service command has been introduced.

3.25.168 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.

3.25.169 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.

3.25.170 interface proxy connect

Description Start the process of connecting to the proxy server. By default, connection is set via any interface.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Proxy

Synopsis

```
(config-if)> proxy connect [ via <via> ]
```

```
(config-if)> no proxy connect
```

Arguments

Argument	Value	Description
via	<i>Interface</i>	Interface through which remote node is accessed.

Example

```
(config-if)> proxy connect via WifiMaster1/WifiStation0
Proxy::Interface: "Proxy0": set connection via ►
WifiMaster1/WifiStation0.
```



```
(config-if)> no proxy connect
Proxy::Interface: "Proxy0": set connection via any interface.
```

History

Version	Description
3.09	The interface proxy connect command has been introduced.

3.25.171 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.

3.25.172 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.

3.25.173 interface proxy upstream

Description Set proxy server for connection.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Proxy

Synopsis

```
(config-if)> proxy upstream <host> [<port>]
(config-if)> no proxy upstream
```

Arguments

Argument	Value	Description
host	<i>String</i>	IP-address or domain name of proxy server.
port	<i>Integer</i>	The server port.

Example

```
(config-if)> proxy upstream 161.8.174.48 1080
Proxy::Interface: "Proxy0": set proxy upstream to ►
161.8.174.48:1080.
```

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

History

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

3.25.174 interface reconnect-delay

Description Set the period of time between reconnection attempts. By default, value 3 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> reconnect-delay <sec>
```

```
(config-if)> no reconnect-delay
```

Arguments

Argument	Value	Description
sec	<i>Integer</i>	Value of time in seconds. Can take values in the range from 3 to 600.

Example

```
(config-if)> reconnect-delay 3
Network::Interface::Ppp: "PPTP1": reconnect delay set to 3 ►
seconds.
```

```
(config-if)> no reconnect-delay
Network::Interface::Ppp: "PPTP0": reconnect delay reset to ►
default.
```

History

Version	Description
2.11	The interface reconnect-delay command has been introduced.

3.25.175 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	<i>Integer</i>	Value of rekey interval in seconds.

Example

```
(config-if)> rekey-interval 3000
Network::Interface::Rtx::WifiMaster: "WifiMaster0": rekey ►
interval is 3000 sec.
```

```
(config-if)> no rekey-interval
Network::Interface::Rtx::WifiMaster: "WifiMaster0": rekey ►
interval disabled.
```

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.

3.25.176 interface rename

Description Assign arbitrary name to the specified network interface. The interface can be referred to by the new name just like by ID.

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

Warning: Do not rename Home interface. This can cause unpredictable system errors.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> rename <rename>
```

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

Arguments

Argument	Value	Description
rename	<i>String</i>	New interface name.

Example

```
(config-if)> rename PPPoE1
Network::Interface::Base: "PPPoE0": renamed to "PPPoE1".
```

```
(config-if)> no rename
Network::Interface::Base: "PPPoE0": name cleared.
```

History

Version	Description
2.08	The interface rename command has been introduced.

3.25.177 interface rf e2p set

Description Change the memory cell value of calibration data at *offset* by *value* for the specified interface.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis

```
(config-if) rf e2p set <offset> <value>
```

Arguments

Argument	Value	Description
offset	<i>Hex</i>	Memory cell location. Can take values in the range from 1E0 to 1FE.
value	<i>Hex</i>	Value to be set. Can take values in the range from 0 to FFFF.

Example

```
(config-if)> rf e2p set 1f6 0
Network::Interface::Rtx::WifiMaster: EEPROM [0x01F6]:0000 set.
```

History

Version	Description
2.04	The interface rf e2p set command has been introduced.

3.25.178 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.

3.25.179 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.

3.25.180 interface rssi-threshold

Description Set the RSSI signal strength threshold for the Access Point at which Wi-Fi clients will be disconnected and cannot connect to the Access Point. By default, the RSSI value 0 is used.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** AccessPoint

Synopsis

```
(config-if)> rssi-threshold <rssi-threshold>
```

```
(config-if)> no rssi-threshold
```

Arguments

Argument	Value	Description
rssi-threshold	<i>Integer</i>	RSSI values in the range from -100 to 0. If value is set to 0, the setting is disabled.

Example

```
(config-if)> rssi-threshold -30
Network::Interface::Mtk::AccessPoint: "WifiMaster0/AccessPoint0": ►
rssi threshold is set to -30.
```

```
(config-if)> no rssi-threshold
Network::Interface::Mtk::AccessPoint: "WifiMaster0/AccessPoint0": ►
rssi threshold reset to 0.
```

History

Version	Description
4.01	The interface rssi-threshold command has been introduced.

3.25.181 interface schedule

Description

Assign a schedule to the interface. Schedule must be created and customized with **schedule action** command before execution.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> schedule <schedule>
```

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

Arguments

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

Example

```
(config-if)> schedule WIFI
Network::Interface::Base: "WifiMaster0": schedule is "WiFi".
```

```
(config-if)> no schedule
Network::Interface::Base: "WifiMaster0": schedule cleared.
```

History

Version	Description
2.06	The interface schedule command has been introduced.

3.25.182 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.

3.25.183 interface spatial-reuse

Description

Enable support of *Spatial Reuse* for AP 2,4 GHz and 5 GHz. By default, setting is enabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> spatial-reuse
```

```
(config-if)> no spatial-reuse
```

Example

```
(config-if)> spatial-reuse
Network::Interface::Rtx::WifiMaster: "WifiMaster0": llax spatial ►
reuse enabled.
```

```
(config-if)> no spatial-reuse
Network::Interface::Rtx::WifiMaster: "WifiMaster0": llax spatial ►
reuse disabled.
```

History

Version	Description
3.08	The interface spatial-reuse command has been introduced.

3.25.184 interface speed

Description

Configure the speed of the Ethernet interface. By default, auto value is set.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** Ethernet

Synopsis

```
(config-if)> speed (10 | 100 | 1000 | auto)
```

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

Arguments

Argument	Value	Description
10	<i>Keyword</i>	Connection speed in Mbit/s.
100		
1000		
auto	<i>Keyword</i>	Automatical speed configuration.

Example

```
(config-if)> speed 1000
Network::Interface::Ethernet: "GigabitEthernet1/0": speed set ►
to 1000.
```

```
(config-if)> no speed
Network::Interface::Ethernet: "GigabitEthernet1/0": speed reset ►
to default (auto-negotiation).
```

History

Version	Description
2.06.B.1	The interface speed command has been introduced.

3.25.185 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.

3.25.186 interface ssid

Description

Specify the wireless network name (SSID) for WiFiStation and AccessPoint interfaces. Depending on the interface type, the SSID value is processed differently.

- For AccessPoint, the SSID is a necessary setting, without which the connection will not be accepted.
- For the WiFiStation SSID determines which access point WiFiStation will connect to. Without a specified SSID, WiFiStation can connect to any available wireless network at its discretion.

Command with **no** prefix resets network name to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFi

Synopsis

```
(config-if)> ssid <ssid>
```

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

Arguments

Argument	Value	Description
ssid	<i>String</i>	Wireless Network Name (SSID).

Example

```
(config-if)> ssid MYNETWORK
Network::Interface::Wireless: "WifiMaster0/AccessPoint0": SSID ►
saved.
```

```
(config-if)> no ssid
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
SSID reset.
```

History

Version	Description
2.00	The interface ssid command has been introduced.

3.25.187 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.

3.25.188 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	<i>Integer</i>	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.

3.25.189 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.

3.25.190 interface switchport access

Description

Set the port [VLAN](#) ID for access mode. Allows to transfer frames of the specified [VLAN](#) to the port and remove [VLAN](#) marker from the transferred frames.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Port

Synopsis

```
(config-if)> switchport access vlan <vid>
```

```
(config-if)> no switchport access vlan
```

Arguments

Argument	Value	Description
vid	<i>Integer</i>	Access VLAN ID. Can take values in the range from 1 to 4094 inclusively.

Example

```
(config-if)> switchport access vlan 1
Network::Interface::Switch: "GigabitEthernet0/0": set access ►
VLAN ID: 1.
```

History

Version	Description
2.06	The interface switchport access command has been introduced.

3.25.191 interface switchport friend

Description	Configure unidirectional VLAN for multicast traffic in addition to access VLAN . Port can be a member of one access VLAN . This command enables forwarding of downstream traffic from a different VLAN (called "friend"). Friend packets are transmitted without a tag.								
	Command with no prefix removes the setting.								
Prefix no	Yes								
Change settings	Yes								
Multiple input	No								
Interface type	Port								
Synopsis	<pre>(config-if)> switchport friend vlan <vid></pre> <pre>(config-if)> no switchport friend vlan</pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>vid</td><td><i>Integer</i></td><td>Friend VLAN ID. Can take values in the range from 1 to 4094 inclusively.</td></tr></table>			Argument	Value	Description	vid	<i>Integer</i>	Friend VLAN ID. Can take values in the range from 1 to 4094 inclusively.
Argument	Value	Description							
vid	<i>Integer</i>	Friend VLAN ID. Can take values in the range from 1 to 4094 inclusively.							
Example	<pre>(config-if)> switchport friend vlan 2</pre> <pre>Network::Interface::Switch: "GigabitEthernet0/0": set friend ►</pre> <pre>VLAN ID: 2.</pre>								
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.06</td><td>The interface switchport friend command has been introduced.</td></tr></table>			Version	Description	2.06	The interface switchport friend command has been introduced.		
Version	Description								
2.06	The interface switchport friend command has been introduced.								

3.25.192 interface switchport mode

Description	<p>Set access or trunk mode for VLAN. By default, access mode is set.</p> <p>Command with no prefix resets setting to default.</p>	
Prefix no	Yes	
Change settings	Yes	
Multiple input	No	
Interface type	Port	
Synopsis	<pre>(config-if)> switchport mode [(access [q-in-q]) trunk]</pre>	


```
(config-if)> no switchport mode
```

Arguments

Argument	Value	Description
mode	access	Enable the access mode to a <i>VLAN</i> , that is the mode when only the untagged frames pass through the port. The incoming frames get tagged with the PVID marker, which is set with switchport access command. The port is an output one only for <i>VLAN</i> with PVID ID. Once a frame is transferred to the port, the <i>VLAN</i> marker gets removed.
	trunk	Enable the <i>VLAN</i> trunk mode, that is the mode when frames belonging to several VLANs get transmitted through the port. In this case each frame gets tagged. The list of IDs of <i>VLAN</i> networks that include the port is set with switchport trunk command.
q-in-q	Keyword	Enable double tagging.

Example

```
(config-if)> switchport mode access
Network::Interface::Switch: "GigabitEthernet0/1": access mode ►
enabled.
```

History

Version	Description
2.06	The interface switchport mode command has been introduced.

3.25.193 interface switchport trunk

Description

Add a port to the *VLAN*. Allows receiving and transmitting of the given *VLAN* frames to the port, such that VLAN marker from the transmitted frames is not removed. In the trunk mode it is allowed to add a port to several VLANs.

Command with **no** prefix removes the port from the specified *VLAN*. If you use no argument, the port will be removed from all the VLANs.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Port

Synopsis

```
(config-if)> switchport trunk vlan <vid>
```

```
(config-if)> no switchport trunk vlan [ vid ]
```

Arguments

Argument	Value	Description
vid	<i>Integer</i>	<i>VLAN</i> ID. Can take values in the range from 1 to 4094 inclusively.

Example

```
(config-if)> switchport trunk vlan 100
Network::Interface::Switch: "GigabitEthernet0/1": set trunk VLAN ►
ID: 100.
```

History

Version	Description
2.06	The interface switchport trunk command has been introduced.

3.25.194 interface target-waketime

Description

Enable *TWT (Target Wake Time)* function for AP 2,4 GHz and 5 GHz. By default, the setting for AP 2,4 GHz is disabled, for AP 5 GHz is enabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> target-waketime
```

```
(config-if)> no target-waketime
```

Example

```
(config-if)> target-waketime
Network::Interface::Rtx::WifiMaster: "WifiMaster0": 11ax TWT ►
enabled.
```

```
(config-if)> no target-waketime
Network::Interface::Rtx::WifiMaster: "WifiMaster0": 11ax TWT ►
disabled.
```

History

Version	Description
3.07	The interface target-waketime command has been introduced.

3.25.195 interface traffic-shape

Description Set the limit of data rate on a specified interface in both directions. By default speed is not limited.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> traffic-shape rate <rate> [ asymmetric <upstream-rate> ]
[ schedule <schedule> ]

(config-if)> no traffic-shape
```

Arguments

Argument	Value	Description
rate	<i>Integer</i>	Value of data download rate in Kbps. Limit could be in the range from 64 Kbps to 1 Gbps.
upstream-rate	<i>Integer</i>	Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps.
schedule	<i>Schedule</i>	The name of the schedule that was created with schedule group of commands.

Example

```
(config-if)> traffic-shape rate 5000
TrafficControl::Manager: "Bridge0" interface rate limited to ►
5000 kbit/s.
```

```
(config-if)> traffic-shape rate 5000 asymmetric 500
TrafficControl::Manager: "Bridge0" interface rate limited to ►
5000/500 kbit/s.
```

```
(config-if)> no traffic-shape
TrafficControl::Manager: Rate limit removed for "Bridge0" ►
interface.
```

History

Version	Description
2.05	The interface traffic-shape command has been introduced.
3.04	The upstream-rate argument was added.

3.25.196 interface tunnel destination

Description Set the remote end of tunnel. If it is used in conjunction with an automatic *IPSec* connection associated with the tunnel, remote host becomes the initiator of an *IPSec* connection.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Tunnel

Synopsis

```
(config-if)> tunnel destination <destination>
(config-if)> no tunnel destination
```

Arguments

Argument	Value	Description
destination	<i>String</i>	IP address or domain name of the remote host.

Example

```
(config-if)> tunnel destination example.net
Network::Interface::Tunnel: "Gre0": destination set to ►
example.net.
```

```
(config-if)> no tunnel destination
Network::Interface::Tunnel: "Gre0": destination was reset.
```

History

Version	Description
2.08	The interface tunnel destination command has been introduced.

3.25.197 interface tunnel eoip id

Description Set identifier of EoIP tunnel.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Eoip

Synopsis

```
(config-if)> tunnel eoip id <id>
```

```
(config-if)> no tunnel eoip id
```

Arguments

Argument	Value	Description
id	<i>Integer</i>	Tunnel ID.

Example

```
(config-if)> tunnel eoip id 50  
Network::Interface::Tunnel: "Gre0": eoip id interface set to auto.
```

```
(config-if)> no tunnel eoip id  
Network::Interface::Tunnel: "Gre0": eoip id was reset.
```

History

Version	Description
2.08	The interface tunnel eoip id command has been introduced.

3.25.198 interface tunnel gre keepalive

Description

Enable support of Cisco-like keepalive for GRE tunnel. By default, interval is set to 5, count is set to 3.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Tunnel

Synopsis

```
(config-if)> tunnel gre keepalive <interval> [count]
```

```
(config-if)> no tunnel gre keepalive
```

Arguments

Argument	Value	Description
interval	<i>Integer</i>	The interval of sending keepalive packets in seconds. Can take values in the range from 0 to 60. If 0 is set, then GRE keepalive replies is enabled only and the router will not react on the tunnel state change.
count	<i>Integer</i>	Number of attempts to send keepalive packets. Can take values in the range from 1 to 20.

Example

```
(config-if)> tunnel gre keepalive 10 7
Network::Interface::Gre: "Gre0": set GRE keepalive to 10 s (7 ►
retries).
```

```
(config-if)> no tunnel gre keepalive
Network::Interface::Gre: "Gre0": disable GRE keepalive.
```

```
(config-if)> tunnel gre keepalive 0
Network::Interface::Gre: "Gre0": enable only GRE keepalive ►
replies.
```

History

Version	Description
2.10	The interface tunnel gre keepalive command has been introduced.

3.25.199 interface tunnel source

Description

Set the local end of tunnel. If it is used in conjunction with an automatic [IPSec](#) connection associated with the tunnel, then the reception mode of IPsec IKE connections is activated to establish a secure tunnel.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

Tunnel

Synopsis

```
(config-if)> tunnel source (auto | <interface> | <address>)
```

Arguments

Argument	Value	Description
auto	<i>Keyword</i>	Set the current working WAN interface.
interface	<i>Interface</i>	Full interface name or an alias.
address	<i>IP address</i>	Local IP-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.

3.25.200 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.

3.25.201 interface tx-queue length

Description Set the size of the queue of outgoing packets on the interface. By default, 1000 value is set.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> tx-queue length <length>
(config-if)> no tx-queue length
```

Arguments	Argument	Value	Description
	length	<i>Integer</i>	Queue length can take values in the range from 0 to 65536.

Example

```
(config-if)> tx-queue length 255
Network::Interface::Base: "L2TP0": TX queue length is 255.
```

```
(config-if)> no tx-queue length
Network::Interface::Base: "L2TP0": TX queue length reset to ►
default.
```

History

Version	Description
3.06	The interface tx-queue length command has been introduced.

3.25.202 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.

3.25.203 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.

3.25.204 interface up

Description

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

Command with **no** prefix disables the the network interface and deletes “up” from settings. Also **interface down** command can be used.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> up
```

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

Example

```
(config-if)> up
Interface enabled.
```

History

Version	Description
2.00	The interface up command has been introduced.

3.25.205 interface uplink-mumimo

Description

Enable 802.11ax uplink MU-MIMO. By default, the feature is enabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> uplink-mumimo
```

```
(config-if)> no uplink-mumimo
```

Example

```
(config-if)> uplink-mumimo
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ax ►
uplink-mumimo enabled.
```

```
(config-if)> no uplink-mumimo
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ax ►
uplink-mumimo disabled.
```

History

Version	Description
3.07	The interface uplink-mumimo command has been introduced.

3.25.206 interface uplink-ofdma

Description

Enable 802.11ax uplink [OFDMA](#). By default, the feature is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFiMaster

Synopsis

```
(config-if)> uplink-ofdma
```

```
(config-if)> no uplink-ofdma
```

Example

```
(config-if)> uplink-ofdma
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ax ►
downlink-ofdma enabled.
```

```
(config-if)> no uplink-ofdma
Network::Interface::Rtx::WifiMaster: "WifiMaster1": 11ax ►
downlink-ofdma disabled.
```

History

Version	Description
3.07	The interface uplink-ofdma command has been introduced.

3.25.207 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

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.

3.25.208 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.

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

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

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

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	<i>Integer</i>	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.

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.

3.25.209 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	<i>Integer</i>	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.
advertise	<i>Integer</i>	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.

3.25.210 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	<i>Integer</i>	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.
ip	<i>IP-address</i>	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.

3.25.211 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	<i>Integer</i>	The Virtual Router Identifier (VRID) for the interface. Can take values in the range from 1 to 255.
priority	<i>Integer</i>	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.

3.25.212 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	<i>Keyword</i>	Version 2 for IPv4 and version 3 for IPv6.
v2	<i>Keyword</i>	Strict compliance to VRRP version 2: <ul style="list-style-type: none"> • zero Virtual IPs are not allowed; • IPv6 addresses are not allowed; • the Master state can only be set if the priority is 255.
v3	<i>Keyword</i>	VRRP version 3 for IPv4 and IPv6 both.
v3-compat	<i>Keyword</i>	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.

3.25.213 interface whnat

Description Enable WHNAT (wireless hardware accelerator) for AP 5 GHz. The accelerator is used when transmitting traffic between LAN and WLAN clients of the same network segment. When HWNAT (hardware accelerator) is off, WHNAT

(wireless hardware accelerator) works through SWNAT (software accelerator), which reduces the speed in the LAN-WLAN direction. By default, the setting is enabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFiMaster

Synopsis

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

Example

```
(config-if)> whnat
Network::Interface::Rtx::WifiMaster: "WifiMaster1": wireless ►
hardware NAT offload is enabled.

(config-if)> no whnat
Network::Interface::Rtx::WifiMaster: "WifiMaster1": wireless ►
hardware NAT offload is disabled.
```

History

Version	Description
3.09	The interface whnat command has been introduced.

3.25.214 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	<i>String</i>	The number of packets with random data that are sent before the start of the session.
jmin	<i>String</i>	The minimum packet size for Junk packet. That is, all randomly generated packets will have a size no smaller than Jmin.
jmax	<i>String</i>	The maximum size for Junk packets.
s1	<i>String</i>	The size of random data that will be added to the init packet.
s2	<i>String</i>	The size of random data that will be added to the response packet.
h1	<i>String</i>	The header of the first byte of the handshake.
h2	<i>String</i>	The header of the first byte of the handshake response.
h3	<i>String</i>	UnderLoad packet header.
h4	<i>String</i>	The header of the packet of the data packet. The interval of keepalive packet sending in seconds.
h4	<i>String</i>	The header of the packet of the data packet. The interval of keepalive packet sending in seconds.
s3	<i>String</i>	The size of random data added to the Cookie packet.
s4	<i>String</i>	The size of random data added to the transport packet.
i1	<i>String</i>	The parameters of the first custom signature packet.
i2	<i>String</i>	The parameters of the second custom signature packet.
i3	<i>String</i>	The parameters of the third custom signature packet.
i4	<i>String</i>	The parameters of the fourth custom signature packet.
i5	<i>String</i>	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 >
0x85800001000100000000669636c6f75640363f6d0000010001c00c000100010000105a00044c583737>
" "" "" "" ""
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 .

3.25.215 interface wireguard listen-port

Description Specify [UDP](#) port number to which incoming connections are accepted. By default, port number is not defined.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Wireguard

Synopsis

```
(config-if)> wireguard listen-port <port>
(config-if)> no wireguard listen-port
```

Arguments

Argument	Value	Description
port	<i>Integer</i>	Port number. Can take values in the range from 1 to 65535 inclusively.

Example

```
(config-if)> wireguard listen-port 11633
Wireguard::Interface: "Wireguard4": set listen port to "11633".
```

```
(config-if)> no wireguard listen-port
Wireguard::Interface: "Wireguard4": reset listen port.
```

History

Version	Description
3.03	The interface wireguard listen-port command has been introduced.

3.25.216 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	<i>String</i>	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 ►
"bmX0C+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.

3.25.217 interface wireguard peer

Description Add the remote peer public key to configure the secure connection using the [WireGuard](#) protocol.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Wireguard

Group entry (config-wg-peer)

Synopsis

```
(config-if)> wireguard peer <key>
(config-if)> no wireguard peer <key>
```

Arguments

Argument	Value	Description
key	<i>String</i>	Value of the key. Latin letters, numbers and equal signs are acceptable. The key length is 44 characters (Base64-encoded 32-byte string representation).

Example

```
(config-if)> wireguard peer ►
gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm0g=
(config-wg-peer)>
```

```
(config-if)> no wireguard peer ►
gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm0g=
Wireguard::Interface: "Wireguard4": removed peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmmg0=".
```

History

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

3.25.217.1 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	<i>IP address</i>	Together with mask <i>mask</i> sets the subnet of IP addresses to be translated.
mask	<i>IP-mask</i>	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 ►
"gbplgW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".

(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 ►
"gbplgW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".

(config-wg-peer)> no allow-ips
Wireguard::Interface: "Wireguard4": clear allowed IPs of peer ►
"gbplgW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

History

Version	Description
3.03	The interface wireguard peer allow-ips command has been introduced.

3.25.217.2 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	<i>String</i>	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/TCXG8fnKf20Ldjs=" send client ID to ►
"1450150".
```

```
(config-wg-peer)> no client-id send
Wireguard::Interface: "Wireguard3": reset send client ID for ►
peer "4G0SzB1231234413PevDG4dy0Y/TCXG8fnKf20Ldjs=".
```

History

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

3.25.217.3 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	<i>Interface</i>	Full interface name or an alias.

Example

```
(config-wg-peer)> connect
Wireguard::Interface: "Wireguard0": set peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byP0zK/MAI67VmXs=" connection via ►
any interface.
```

```
(config-wg-peer)> connect via ISP
Wireguard::Interface: "Wireguard0": set peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byP0zK/MAI67VmXs=" connect via "ISP"
```

```
(config-wg-peer)> no connect
Wireguard::Interface: "Wireguard0": disabled peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byP0zK/MAI67VmXs=".
```

History

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

3.25.217.4 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	<i>IP address</i>	IP address or domain name of the server.
port	<i>Integer</i>	The <i>UDP</i> server port.

Example

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

3.25.217.5 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	<i>Integer</i>	The interval of keepalive packet sending in seconds. Can take values in the range from 3 to 3600 inclusively.

Example

```
(config-wg-peer)> keepalive-interval 3
Wireguard::Interface: "Wireguard4": set peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjJPmm2g=" keepalive interval ►
to "3".
```

```
(config-wg-peer)> no keepalive-interval
Wireguard::Interface: "Wireguard4": reset persistent keepalive ►
interval for peer "gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjJPmm2g=".
```

History

Version	Description
3.03	The interface wireguard peer keepalive-interval command has been introduced.

3.25.217.6 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	<i>String</i>	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 ►
"bmX0C+F1FxEMF9dyiK2H5/1SUtzH0JuVo51h2wPfgyo=".
```

```
(config-wg-peer)> no obfs-key
Wireguard::Interface: "Wireguard3": reset obfs key for peer ►
"bmX0C+F1FxEMF9dyiK2H5/1SUtzH0JuVo51h2wPfgyo=".
```

History

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

3.25.217.7 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	<i>String</i>	Secret PSK key value. Latin letters, numbers and equal signs are acceptable. The key length is 44 characters.

Example

```
(config-wg-peer)> preshared-key ►
WY2fkhJZuDCbYew7L8whBMzkReVf8KKzWJrmaR79F8z=
Wireguard::Interface: "Wireguard4": set preshared key for peer ►
"gbp1gW3pBQKssrAdah1hiib13Jl123ZM8dBIjjPmm2g=".
```

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

History

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

3.25.218 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	<i>String</i>	A new private key value. Latin letters, numbers and equal signs are acceptable. The key length is 44 characters.

Example

```
(config-if)> wireguard private-key
Wireguard::Interface: "Wireguard4": generated new private key.
```

```
(config-if)> wireguard private-key ►
UshaeghezaiJ7reo8iK6ear0eomujohkeen8jahX5uo=
Wireguard::Interface: "Wireguard4": set private key.
```

History

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

3.25.219 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.

3.25.220 interface wpa-eap radius secret

Description Specify the shared secret for secure communication between a [RADIUS](#) server and a [RADIUS](#) client.

Command with **no** prefix deletes the shared secret.

Prefix no	Yes
Change settings	Yes
Multiple input	No
Interface type	Bridge

Synopsis

```
(config-if)> wpa-eap radius secret <secret>
(config-if)> no wpa-eap radius secret
```

Arguments	Argument	Value	Description
	secret	<i>String</i>	The value of RADIUS shared secret. Maximum key length is 64 characters.

Example

```
(config-if)> wpa-eap radius secret ►
(+>R#G`}-JNxru'i8i|lK}wBN9E^X0Xa{xFOG-N^%FaTnr|S(e(q$/lP2/tbX/#Q
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS secret applied.

(config-if)> no wpa-eap radius secret
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS secret cleared.
```

History

Version	Description
3.01	The interface wpa-eap radius secret command has been introduced.

3.25.221 interface wpa-eap radius server

DescriptionSpecify *RADIUS* server address.Command with **no** prefix deletes the address.**Prefix no**

Yes

Change settings

Yes

Multiple input

No

Interface type

Bridge

Synopsis

```
(config-if)> wpa-eap radius server <address> [:<port> ]
```

```
(config-if)> no wpa-eap radius server
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	<i>RADIUS</i> server IP address.
port	<i>Integer</i>	<i>RADIUS</i> server port.

Example

```
(config-if)> wpa-eap radius server 192.168.10.10
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server set to ►
192.168.10.10.
```

```
(config-if)> wpa-eap radius server 192.168.10.10:1111
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server set to ►
192.168.10.10:1111.
```

```
(config-if)> no wpa-eap radius server
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server cleared.
```

History

Version	Description
3.01	The interface wpa-eap radius server command has been introduced.

3.25.222 interface wps

DescriptionEnable *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.

3.25.223 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.

3.25.224 interface wps button

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

Prefix no No

Change settings No**Multiple input** No**Interface type** WiFi**Synopsis** `(config-if)> wps button <direction>`**Arguments**

Argument	Value	Description
direction	send	Send WiFi configuration.
	receive	Receive WiFi configuration from Racer.

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.

3.25.225 interface wps peer

Description Start WPS process using remote peer's PIN. Process takes 2 minutes or until the first connection occurred. By default, WPS PIN is disabled.**Prefix no** No**Change settings** No**Multiple input** No**Interface type** WiFi**Synopsis** `(config-if)> wps peer <direction> <pin>`**Arguments**

Argument	Value	Description
direction	send	Send WiFi configuration.
	receive	Receive WiFi configuration from the remote peer.
pin	<i>String</i>	PIN code of the remote peer.

Example

```
(config-if)> wps peer send 53794141
Network::Interface::Rtx::Wps: "WifiMaster0/AccessPoint0": peer ►
PIN WPS session started.
```

History	Version	Description
	2.04	The interface wps peer command has been introduced.

3.25.226 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 Racer.

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.

3.25.227 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.

3.25.228 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.

3.25.229 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	<div><pre>(config-if)> zerotier connect [via <i><via></i>]</pre><pre>(config-if)> no zerotier connect</pre></div>						
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>via</td><td><i>Interface</i></td><td>Full interface name or an alias.</td></tr></table>	Argument	Value	Description	via	<i>Interface</i>	Full interface name or an alias.
Argument	Value	Description					
via	<i>Interface</i>	Full interface name or an alias.					
Example	<div><pre>(config-if)> zerotier connect via ISP</pre><pre>ZeroTier::Interface: "ZeroTier0": set connection via ISP.</pre><pre>(config-if)> no zerotier connect</pre><pre>ZeroTier::Interface: "ZeroTier0": set connection via any ► interface.</pre></div>						
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>4.01</td><td>The interface zerotier connect command has been introduced.</td></tr></table>	Version	Description	4.01	The interface zerotier connect command has been introduced.		
Version	Description						
4.01	The interface zerotier connect command has been introduced.						

3.25.230 interface zerotier network-id

Description	Set identifier of <i>ZeroTier</i> tunnel. Command with no prefix resets the setting.						
Prefix no	Yes						
Change settings	Yes						
Multiple input	No						
Interface type	ZeroTier						
Synopsis	<pre>(config-if)> zerotier network-id <network-id></pre> <pre>(config-if)> no zerotier network-id</pre>						
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>network-id</td><td><i>String</i></td><td>Tunnel ID.</td></tr></table>	Argument	Value	Description	network-id	<i>String</i>	Tunnel ID.
Argument	Value	Description					
network-id	<i>String</i>	Tunnel ID.					
Example	<pre>(config-if)> zerotier network-id 816227940c13c37e</pre> <pre>ZeroTier::Interface: "ZeroTier0": set network ID to ► "816227940c13c37e".</pre>						

```
(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.

3.26 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	<i>IP address</i>	IP address in four-part dotted decimal format corresponding to the local data-link address.
mac	<i>MAC address</i>	MAC address as six groups of two hexadecimal digits separated by colons.

Example

```
(config)> ip arp 192.168.2.50 a1:2e:84:85:f4:21
Network::ArpTable: Static ARP entry saved.
```

```
(config)> no ip arp 192.168.2.50
Network::ArpTable: Static ARP entry deleted for 192.168.2.50.
```

```
(config)> no ip arp
Network::ArpTable: Static ARP table cleared.
```

History

Version	Description
2.00	The ip arp command has been introduced.

3.27 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.

3.28 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	<i>Integer</i>	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.

3.29 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	<i>Integer</i>	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.

3.30 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	<i>Integer</i>	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.

3.31 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	<i>Integer</i>	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.

3.32 ip dhcp class

Description

Access to a group of commands to configure [DHCP](#) vendor class (option 60). If specified class name is not found, the command tries to create it.

Command with **no** prefix removes selected class.

Prefix no

Yes

Change settings

No

Multiple input

Yes

Group entry

(config-dhcp-class)

Synopsis

```
(config)> ip dhcp class <class>
```

```
(config)> no ip dhcp class <class>
```

Arguments

Argument	Value	Description
class	<i>String</i>	The vendor-class name.

Example

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

History

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

3.32.1 ip dhcp class option

Description Set an option 60 to match the vendor-class.
Command with **no** prefix removes selected option.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dhcp-class)> option <number> hex <data>
(config-dhcp-class)> no option <number>
```

Arguments

Argument	Value	Description
number	<i>Integer</i>	Option number. Now the only 60 value is used.
data	<i>String</i>	Value of an option.

Example

```
(config-dhcp-class)> option 60 hex FF
Dhcp::Server: Option 60 is set to FF.
```

History

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

3.33 ip dhcp host

Description Configure static linking of IP address to MAC address of the host. If the host with the specified name is not found, the command tries to create it. If the specified IP address is not in range of any pool, the command will remain in the settings, but will not affect the [DHCP server](#) functioning.

The command allows one to change the MAC address, leaving the old value IP address and vice versa — to change the IP address, leaving the old MAC address value intact.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ip dhcp host <host> [mac] [ip]
```

```
(config)> no ip dhcp host <host>
```

Arguments

Argument	Value	Description
host	<i>String</i>	Arbitrary host name, used to identify a MAC-IP pair in the settings.
mac	<i>MAC address</i>	MAC address of the host for static linking of IP address. If not specified, the value is taken from the previous configuration.
ip	<i>IP address</i>	IP address of the host. If not specified, the value is taken from the previous configuration.

Example

```
(config)> ip dhcp host HOST 192.168.1.44
new host "HOST" has been created.
```

History

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

3.34 ip dhcp pool

Description

Access to a group of commands to configure DHCP-pool. If the pool is not found, the command tries to create it. For a pool one sets a list of DNS servers (**dns-server** command), default gateway (**default-router** command) and the lease time (**lease** command), as well as a range of dynamic IP addresses (**range** command).

Having configured the pool, it is necessary to enable the **DHCP** service using the **service dhcp** command.

You can enter up to 32 pools. Maximum pool name length is 32 characters.

Note: In the current version of the system no more than one pool per interface is supported. For **DHCP server** to function correctly it is required that the range of IP addresses set by **range** command belong to the network that is configured on one of the device's Ethernet-interfaces.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-dhcp-pool)

Synopsis

```
(config)> ip dhcp pool <name>
```



```
(config)> no ip dhcp pool <name>
```

Arguments

Argument	Value	Description
name	<i>String</i>	DHCP pool name.

Example

```
(config)> ip dhcp pool test_pool
pool "test_pool" has been created.
```

History

Version	Description
2.00	The ip dhcp pool command has been introduced.

3.34.1 ip dhcp pool bind

Description Bind the pool to specified interface.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-dhcp-pool)> bind <interface>
```

```
(config-dhcp-pool)> no bind <interface>
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Full interface name or an alias.

Example

```
(config-dhcp-pool)> bind GigabitEthernet1
pool "test_pool" bound to interface GigabitEthernet1.
```

History

Version	Description
2.00	The ip dhcp pool bind command has been introduced.

3.34.2 ip dhcp pool bootfile

Description Set boot file path on TFTP server for DHCP client (option 67).

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

Prefix no Yes

Change settings Yes**Multiple input** No**Interface type** Ethernet

Synopsis

```
(config-dhcp-pool)> bootfile <bootfile>
(config-dhcp-pool)> no bootfile
```

Arguments

Argument	Value	Description
bootfile	<i>Filename</i>	The boot file path.

Example

```
(config-dhcp-pool)> bootfile test.cnf
Dhcp::Pool: "_WEBADMIN": set bootfile option to "test.cnf".
```

```
(config-dhcp-pool)> no bootfile
Dhcp::Pool: "_WEBADMIN": cleared bootfile option.
```

History

Version	Description
2.11	The ip dhcp pool bootfile command has been introduced.

3.34.3 ip dhcp pool class

Description

Access to a group of commands to configure [DHCP](#) vendor class for selected pool. If specified class name is not found, the command tries to create it.

To work correctly class name should be the same as for [ip dhcp class](#) command.

Command with **no** prefix removes selected class.

Prefix no Yes**Change settings** Yes**Multiple input** Yes**Group entry** (config-dhcp-pool-class)

Synopsis

```
(config-dhcp-pool)> class <class>
(config-dhcp-pool)> no class <class>
```

Arguments

Argument	Value	Description
class	<i>String</i>	The vendor-class name.

Example (config-dhcp-pool)> **class STB-One**
 Dhcp::Server: Vendor class "STB-One" has been created.

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

3.34.3.1 ip dhcp pool class option

Description Set additional options for *DHCP* client in case of vendor-class matching.
 Command with **no** prefix removes selected option.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dhcp-pool-class)> option <number> <type> <data>
(config-dhcp-pool-class)> no option <number>
```

Arguments	Argument	Value	Description
	number	6	6 option, DNS server.
		42	42 option, NTP server.
		43	43 option, vendor specific information.
	type	ip	Type of data is IP address. This type is not used for 43 option.
		hex	Type of data is hexadecimal number.
	data	<i>String</i>	Value of an option.

Example (config-dhcp-pool-class)> **option 6 ip 192.168.1.1**
 Dhcp::Server: Option 6 is set to 192.168.1.1.

History	Version	Description
	2.00	The ip dhcp pool class option command has been introduced.

3.34.4 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.

3.34.5 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	<i>IP address</i>	Default gateway address.

Example

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

History

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

3.34.6 ip dhcp pool dns-server

Description Configure IP addresses of the DNS servers (DHCP option 6). If not specified, the address of the Ethernet-interface determined automatically for a given range **range** will be used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> dns-server ( <address1> [ <address2> ] | disable )
(config-dhcp-pool)> no dns-server
```

Arguments

Argument	Value	Description
address1	<i>IP address</i>	Address of primary DNS server.
address2	<i>IP address</i>	Address of secondary DNS server.
disable	<i>Keyword</i>	Disable DHCP option 6.

Example

```
(config-dhcp-pool)> dns-server 192.168.1.88
pool "test_pool" name server list has been saved.
```

History

Version	Description
2.00	The ip dhcp pool dns-server command has been introduced.
2.11	Disable argument has been added.

3.34.7 ip dhcp pool domain

Description Specify the domain name that client should use when resolving hostnames via DNS (option 15).

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dhcp-pool)> domain <domain>
(config-dhcp-pool)> no domain
```

Arguments

Argument	Value	Description
domain	<i>String</i>	Local domain name.

Example

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

History

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

3.34.8 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.

3.34.9 ip dhcp pool lease

Description

Set the lease time of DHCP pool IP address. By default, 25200 value is used (7 hours).

Command with **no** prefix resets lease time to default.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dhcp-pool)> lease <lease>
```

```
(config-dhcp-pool)> no lease
```

Arguments

Argument	Value	Description
lease	<i>Integer</i>	Lease time in seconds. Can take values in the range from 1 to 259200 seconds (3 days).

Example

```
(config-dhcp-pool)> lease 259200
Dhcp::Pool: "_WEBADMIN": set lease time: 259200 seconds.
```

```
(config-dhcp-pool)> no lease
Dhcp::Pool: "_WEBADMIN": lease time reset to default (25200 seconds).
```

History

Version	Description
2.00	The ip dhcp pool lease command has been introduced.

3.34.10 ip dhcp pool next-server

Description

Set TFTP server address for DHCP client (option 66).

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-dhcp-pool)> next-server <address>
```

```
(config-dhcp-pool)> no next-server
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	TFTP server address.

Example

```
(config-dhcp-pool)> next-server 10.1.1.11
Dhcp::Pool: "_WEBADMIN": set next server address: 10.1.1.11.
```

```
(config-dhcp-pool)> no next-server
Dhcp::Pool: "_WEBADMIN": cleared next server address.
```

History

Version	Description
2.11	The ip dhcp pool next-server command has been introduced.

3.34.11 ip dhcp pool option

Description Set additional options for DHCP server.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Ethernet

Synopsis

```
(config-dhcp-pool)> option <number> [ type ] <data>
```

```
(config-dhcp-pool)> no option <number>
```

Arguments

Argument	Value	Description
number	4	4 option, Time server. Type is IP address.
	6	6 option, DNS server. Type is IP address.
	42	42 option, NTP server. Type is IP address.
	44	44 option, NetBIOS server. Type is IP address.
	26	26 option, MTU. Can take values in the range from 0 to 65535 inclusively.
	121	121 option, Classless Static Routes. Type is IP address of the destination network and mask of the destination network the form of prefix bit length (for example, /24).
	249	249 option, Microsoft Classless Static Routes. Type is IP address of the destination network and mask of the destination network the form of prefix bit length (for example, /24).
type	hex	Hexadecimal number.
	ascii	ASCII number.
	ip	IP address. It is not applicable to 26 option. It is not specified as a keyword in the command.
data	<i>String</i>	Value of an option.

Example

```
(config-dhcp-pool)> option 4 192.168.2.1  
Dhcp::Pool: "_WEBADMIN_BRIDGE2": set option 4.
```

```
(config-dhcp-pool)> option 60 ascii "MSFT 5.0"  
Dhcp::Pool: "_WEBADMIN_BRIDGE2": set option 60.
```

```
(config-dhcp-pool)> option 150 ip 41.57.50.46,42.54.50.46  
Dhcp::Pool: "_WEBADMIN_BRIDGE2": set option 150.
```



```
(config-dhcp-pool)> no option 4
Dhcp::Pool: "_WEBADMIN_BRIDGE2": cleared option 4.
```

History

Version	Description
2.09	The ip dhcp pool option command has been introduced.

3.34.12 ip dhcp pool range

Description

Configure the range of dynamic addresses issued to DHCP clients of a subnet. The range is set by start and end IP addresses or the start address and size. The network interface to which the settings are applied is chosen automatically. Address of the chosen interface is used as the default gateway and DNS server, if other addresses are not specified using commands **ip dhcp pool default-router** and **ip dhcp pool dns-server**.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dhcp-pool)> range <begin> (<end> | <size>)
```

```
(config-dhcp-pool)> no range
```

Arguments

Argument	Value	Description
begin	<i>IP address</i>	Pool's start address.
end	<i>IP address</i>	Pool's end address.
size	<i>Integer</i>	Pool size.

Example

```
(config-dhcp-pool)> range 192.168.15.43 3
pool "_WEBADMIN" range has been saved.
```

History

Version	Description
2.00	The ip dhcp pool range command has been introduced.

3.34.13 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.

3.34.14 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	<i>String</i>	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.

3.35 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.

3.36 ip dhcp relay lan

Description Specify which network interface the DHCP relay will use to handle client's requests. Several "lan" interfaces can be specified, to which end the command should be entered several times, enumerating all desired interfaces one by one.

Command with **no** prefix disables the DHCP relay on the specified interface. If you use no argument, the DHCP relay will be removed from all interfaces.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis (config)> **ip dhcp relay lan** <interface>

(config)> **no ip dhcp relay lan** [interface]

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Full name or an alias of Ethernet interface, through which DHCP relay will accept requests from clients.

Example

```
(config)> ip dhcp relay lan Home
added LAN interface Home.
```

History

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

3.37 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	<i>IP address</i>	IP address of the <i>DHCP server</i> .

Example

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

History

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

3.38 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	<i>Interface</i>	Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command.

Example

```
(config-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.

3.39 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	<i>IP address</i>	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.

3.40 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	<i>Interface</i>	Full name or an alias of Ethernet interface, on which requests from the DHCP clients will be sent.

Example

```
(config)> ip dhcp relay wan GigabitEthernet1
using WAN interface GigabitEthernet1.
```

History

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

3.41 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.

3.42 ip flow-cache timeout active

Description Set timeout of active sessions in cache. By default, the value 10 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip flow-cache timeout active <timeout>
(config)> no ip flow-cache timeout active
```

Arguments

Argument	Value	Description
timeout	<i>Integer</i>	The timeout value, in minutes. Can take values in the range from 1 to 30.

Example

```
(config)> ip flow-cache timeout active 1
Netflow::Manager: Active timeout set to "1" min.
```

```
(config)> no ip flow-cache timeout active
Netflow::Manager: Active timeout reset to "10" min.
```

History

Version	Description
2.11	The ip flow-cache timeout active command has been introduced.

3.43 ip flow-cache timeout inactive

Description

Set timeout of inactive sessions in cache. By default, the value 20 is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> ip flow-cache timeout inactive <timeout>
```

```
(config)> no ip flow-cache timeout inactive
```

Arguments

Argument	Value	Description
timeout	<i>Integer</i>	The timeout value, in seconds. Can take values in the range from 1 to 600.

Example

```
(config)> ip flow-cache timeout inactive 1
Netflow::Manager: Inactive timeout set to "1" s.
```

```
(config)> no ip flow-cache timeout inactive
Netflow::Manager: Inactive timeout reset to "20" s.
```

History

Version	Description
2.11	The ip flow-cache timeout inactive command has been introduced.

3.44 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	<i>IP address</i>	IP address of the data collector.
port	<i>Integer</i>	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.

3.45 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	<i>String</i>	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.

3.46 ip host

Description Add a domain name and address as a DNS-record.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ip host <domain> <address>
```

```
(config)> no ip host [ <domain> <address> ]
```

Arguments

Argument	Value	Description
domain	<i>String</i>	A domain name of a host.
address	<i>IP address</i>	An IP address of a host.

Example

```
(config)> ip host 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.

3.47 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.

3.47.1 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.

3.47.2 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	<i>Policy</i>	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.

3.47.3 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.

3.47.4 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.

3.47.5 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.

Argument	Value	Description
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.

3.47.6 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	<i>Interface</i>	Ethernet interface full name or an alias.
access	permit	Permit access to the internet.
	deny	Deny access to the internet.

Argument	Value	Description
policy	<i>Policy</i>	Name of IP Policy profile.

Example

```
(config-hotspot)> policy Home permit
Hotspot::Manager: Policy "permit" applied to interface "Home".
```

```
(config-hotspot)> policy Home deny
Hotspot::Manager: Policy "deny" applied to interface "Home".
```

```
(config-hotspot)> policy Home Policy0
Hotspot::Manager: Policy "Policy0" applied to interface "Home".
```

```
(config-hotspot)> no policy Home
Hotspot::Manager: Interface "Home" policy cleared.
```

History

Version	Description
2.06	The ip hotspot policy command has been introduced.
2.12	Argument policy was added.

3.47.7 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	<i>Interface</i>	Full interface name or an alias.
priority	1	Top.
	2	Critical.
	3	High.
	4	Medium-high.
	5	Medium.
	6	Normal (Default).

Argument	Value	Description
	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.

3.47.8 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	<i>MAC address</i>	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.

3.48 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	<i>Integer</i>	The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 4 to 20.
duration	<i>Integer</i>	An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 60.
observation-window	<i>Integer</i>	Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 10.

Example

```
(config)> 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.

3.49 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	<pre>(config)> ip http log access</pre> <pre>(config)> no ip http log access</pre>				
Example	<pre>(config)> ip http log access</pre> <pre>Http::Manager: Enabled access logging.</pre> <pre>(config)> no ip http log access</pre> <pre>Http::Manager: Disabled access logging.</pre>				
History	<table> <tr> <th>Version</th><th>Description</th></tr> <tr> <td>3.00</td><td>The ip http log access command has been introduced.</td></tr> </table>	Version	Description	3.00	The ip http log access command has been introduced.
Version	Description				
3.00	The ip http log access command has been introduced.				

3.50 ip http log auth

Description	<p>Enable logging of failed authorization attempts to the system. By default, feature is disabled.</p> <p>Command with no prefix disables logging.</p>				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Interface type	IP				
Synopsis	<pre>(config)> ip http log auth</pre> <pre>(config)> no ip http log auth</pre>				
Example	<pre>(config)> ip http log auth</pre> <pre>Http::Manager: Auth logging enabled.</pre> <pre>(config)> no ip http log auth</pre> <pre>Http::Manager: Auth logging disabled.</pre>				
History	<table> <tr> <th>Version</th><th>Description</th></tr> <tr> <td>2.08</td><td>The ip http log auth command has been introduced.</td></tr> </table>	Version	Description	2.08	The ip http log auth command has been introduced.
Version	Description				
2.08	The ip http log auth command has been introduced.				

3.51 ip http log webdav

Description	<p>Enable logging of failed connection attempts to the WebDAV server. By default, feature is disabled.</p>
--------------------	--

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.

3.52 ip http port

Description Assign HTTP port for Web interface of Racer. By default, 80 value is used.

Command with **no** prefix resets HTTP port to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip http port <port>
(config)> no ip http port
```

Arguments

Argument	Value	Description
port	<i>Integer</i>	New HTTP port.

Example

```
(config)> ip http port 8080
Http::Manager: Port changed to 8080.
```

```
(config)> no ip http port
Http::Manager: Port reset to 80.
```

History	Version	Description
	2.08	The ip http port command has been introduced.

3.53 ip http proxy

Description Access to a group of commands to configure HTTP proxy. If the proxy is not found, the command tries to create it.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Group entry (config-http-proxy)

Synopsis

```
(config)> ip http proxy <name>
(config)> no ip http proxy <name>
```

Arguments	Argument	Value	Description
	name	<i>String</i>	HTTP proxy name.

Example

```
(config)> ip http proxy TEST
Http::Manager: Proxy "TEST" successfully created.
```

History	Version	Description
	2.08	The ip http proxy command has been introduced.

3.53.1 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.

3.53.2 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 78.47.125.180 (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 78.47.125.180 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.

3.53.3 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	<i>String</i>	A domain name.

Example

```
(config-http-proxy)> domain static example.net
Http::Manager: Configured base domain for proxy: test.
```

```
(config-http-proxy)> no domain
Http::Manager: Removed ndns domain for proxy: test.
```

History	Version	Description
	2.08	The ip http proxy domain command has been introduced.

3.53.4 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.

3.53.5 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	<i>String</i>	IP address or domain name.

Example

```
(config-http-proxy)> force-host 192.168.8.1
Http::Proxy: "modem": enabled Host header enforcing to ►
"192.168.8.1".
```

```
(config-http-proxy)> force-host modem.keenetic.pro
Http::Proxy: "modem": enabled Host header enforcing to ►
"modem.keenetic.pro".
```

```
(config-http-proxy)> no force-host
Http::Proxy: "modem": disabled Host header enforcing.
```


History	Version	Description
	3.06	The ip http proxy force-host command has been introduced.

3.53.6 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	<i>String</i>	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.

3.53.7 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.

3.53.8 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.

3.53.9 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.

3.53.10 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	<i>Keyword</i>	Access to the HTTP proxy is allowed for public, private and protected interfaces.

Argument	Value	Description
private	<i>Keyword</i>	Access to the HTTP proxy is allowed for private interfaces only.

Example

```
(config-http-proxy)> security-level public
Http::Proxy: "test1": set public security level.
```

```
(config-http-proxy)> no security-level
Http::Proxy: "test1": unset public security level.
```

History

Version	Description
3.05	The ip http proxy security-level command has been introduced.

3.53.11 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.

3.53.12 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
```

Argument	Value	Description
timeout	<i>Integer</i>	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.
```

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

3.53.13 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
```

Argument	Value	Description
http	<i>Keyword</i>	HTTP server.

Argument	Value	Description
https	<i>Keyword</i>	HTTPS server.
connect	<i>Keyword</i>	IP address and the port number of OpenVPN server.
mac	<i>MAC address</i>	MAC address of server.
ip	<i>IP address</i>	IP address of server.
fqdn	<i>FQDN</i>	Full domain name of server.
port	<i>Integer</i>	The port number.

Example

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

```
(config-http-proxy)> upstream https google.com 443
Http::Proxy: "test": set https upstream google.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.

3.53.14 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.

3.54 ip http security-level

Description

Set the security level for remote access to the Keenetic web interface. By default, private value is set.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config)> ip http security-level (public [ssl] | private | protected)
```

Arguments

Argument	Value	Description
public	<i>Keyword</i>	Access to the web interface is allowed for public, private and protected interfaces via HTTP and HTTPS.
private	<i>Keyword</i>	Access to the web interface is allowed for private interfaces.
protected	<i>Keyword</i>	Access to the web interface is allowed for private and protected interfaces.
ssl	<i>Keyword</i>	Access to the web interface is allowed for public interfaces via HTTPS only.

Example

```
(config)> ip http security-level protected
Http::Manager: Security level changed to protected.
```

```
(config)> ip http security-level public ssl
Http::Manager: Security level set to public SSL.
```

History

Version	Description
2.08	The ip http security-level command has been introduced.
3.00	Parameter ssl was added.

3.55 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.

3.56 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.

3.57 ip http ssl acme get

Description

Generate and sign SSL certificate for the specified domain name (by default, KeenDNS). Access from the Internet should be granted.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(config)> ip http ssl acme get [ <domain> ]
```

Arguments

Argument	Value	Description
domain	<i>String</i>	KeenDNS domain name.

Example

```
(config)> ip http ssl acme get mytest.keenetic.pro
Acme::Client: Obtaining certificate for domain ►
"mytest.keenetic.pro" is started.
```

History

Version	Description
2.11	The ip http ssl acme get command has been introduced.

3.58 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	<i>String</i>	KeenDNS domain name.

Example

```
(config)> ip http ssl acme revoke mytest.keenetic.pro
Acme::Client: Revoking certificate for domain ►
"mytest.keenetic.pro" is started.
```

History

Version	Description
2.11	The ip http ssl acme revoke command has been introduced.

3.59 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.

3.60 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.

3.61 ip http ssl port

Description Assign HTTPS port for Web interface of Racer. 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	<i>Integer</i>	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.

3.62 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.

3.63 ip http x-frame-options

Description

Set X-Frame-Options header value for web server (nginx) in Home network segment.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config)> ip http x-frame-options <x-frame-options>
```

```
(config)> no ip http x-frame-options <x-frame-options>
```

Arguments

Argument	Value	Description
x-frame-options	<i>String</i>	The X-Frame-Option value.

Example

```
(config)> ip http x-frame-options DENY
Http::Manager: Set X-Frame-Options to "DENY".
```

```
(config)> no ip http x-frame-options DENY
Http::Manager: Disabled X-Frame-Options header.
```

History

Version	Description
3.05	The ip http x-frame-options command has been introduced.

3.64 ip name-server

Description

Configure DNS server IP addresses. Addresses saved in this fashion are called static as opposite to dynamic — as registered by [PPP](#) or [DHCP](#) services.

Active, that addressed being used are the ones that have been registered most recently as compared to the others. Usually, the system uses the addresses which were obtained by several recent successfully connected [PPP](#) or [DHCP](#) services. If none of the services registers [DNS](#) addresses, static settings will be active. However, if after registering dynamic addresses the static settings are changed by the user, they become active until the new dynamic addresses are registered.

ip name-server command can be entered multiple times if several DNS-server addresses need to be setup. Moreover, each entered address can be associated with one or more domain names for working with specific areas, such as local names in the corporate network.

Command with **no** prefix removes the specified DNS server address from the static and the active lists if the command is furnished with arguments. If you use no arguments, the entire list of static addresses will be removed.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> ip name-server <address> [ : <port> ] [ <domain> ] [ on <interface> ] ]
```

```
(config)> no ip name-server [ <address> [ : <port> ] ] [ <domain> [ on
<interface> ] ]
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	Name server address.
port	<i>Integer</i>	Name server port.
domain	<i>String</i>	Domain for which the server will be used. In resolving names the DNS-proxy first selects the address of the server with name best matching the requested domain. If the domain is not specified, the server will be used for all requests. Use "" as default domain. The maximum number of domains per one DNS entry is 16.
interface	<i>Interface</i>	Interface name to configure.

Example

```
(config)> ip name-server 8.8.8.8 "" on ISP
Dns::InterfaceSpecific: Name server 8.8.8.8 added, domain ►
(default), interface ISP.
```

```
(config)> no ip name-server
Dns::Manager: Static name server list cleared.
```

History

Version	Description
2.00	The ip name-server command has been introduced.
2.14	Argument port was added.

3.65 ip nat

Description

Enable translation of “local” addresses of network *network* or network behind the interface *interface*. For example, command `ip nat Home` means that all packets from the network `Home`, passing through the router will undergo IP spoofing.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> ip nat ( <interface> | <address> <mask> )
```

```
(config)> no ip nat ( <interface> | <address> <mask> )
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Source interface name (full name or an alias).
address	<i>IP address</i>	Together with mask <i>mask</i> sets the range of source IP addresses to be translated.
mask	<i>IP-mask</i>	Mask of a translation range. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24).

Example

```
(config)> ip nat Home
Network::Nat: A NAT rule added.
```

```
(config)> no ip nat Home
Network::Nat: A NAT rule removed.
```

History

Version	Description
2.00	The ip nat command has been introduced.

3.66 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.

3.67 ip nat oc

Description	<p>Enable translation for <i>OpenConnect</i> clients.</p> <p>Note: Command is available if the <i>OpenConnect</i> VPN server component is installed.</p> <p>Command with no prefix removes the rule.</p>				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Interface type	IP				
Synopsis	<pre>(config)> ip nat oc</pre> <pre>(config)> no ip nat oc</pre>				
Example	<pre>(config)> ip nat oc</pre> <p>OcServer::Nat: OpenConnect VPN NAT enabled.</p> <pre>(config)> no ip nat oc</pre> <p>OcServer::Nat: OpenConnect VPN NAT disabled.</p>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>4.02</td><td>The ip nat oc command has been introduced.</td></tr> </tbody> </table>	Version	Description	4.02	The ip nat oc command has been introduced.
Version	Description				
4.02	The ip nat oc command has been introduced.				

3.68 ip nat restricted-cone

Description	<p>Enable mode <i>Restricted NAT</i>. By default, the mode is disabled.</p> <p>Command with no prefix disables the mode.</p>
Prefix no	Yes
Change settings	Yes
Multiple input	No
Interface type	IP
Synopsis	<pre>(config)> ip nat restricted-cone</pre> <pre>(config)> no ip nat restricted-cone</pre>
Example	<pre>(config)> ip nat restricted-cone</pre> <p>Network::Nat: Restricted cone mode enabled.</p>


```
(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.

3.69 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.

3.70 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.

3.71 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	<i>Policy</i>	IP Policy name. Latin letters, numbers, hyphens and underscores are acceptable. Not more than 32 characters.

Example

```
(config)> ip policy Policy0
Network::PolicyTable: Created policy "Policy0".
```

```
(config)> no ip policy Policy0
Network::PolicyTable: Removed policy "Policy0".
```

History

Version	Description
2.12	The ip policy command has been introduced.

3.71.1 ip policy description

Description

Assign an arbitrary description to the specified IP Policy profile.

Command with **no** prefix removes description.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-policy)> description <description>
```

```
(config-policy)> no description
```

Arguments

Argument	Value	Description
description	<i>String</i>	An arbitrary description of the IP Policy. Latin letters, numbers, hyphens and underscores are acceptable. Not more than 256 characters.

Example

```
(config-policy)> description 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.

3.71.2 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	<i>Prefix</i>	IPv6 prefix.
interface	<i>Interface</i>	Full interface name or an alias.
gateway	<i>IP address</i>	IP address of the router in a directly connected network.
auto	<i>Keyword</i>	Allows you to apply the route when specified gateway becomes available.
metric	<i>Integer</i>	Route metrics. Ignored in the current implementation.
reject	<i>Keyword</i>	Enable route to use only the selected interface for routing the traffic to the specified destination. If the specified interface is not active, the traffic is not sent via other possible routes. This option works only when using the auto option and cannot be applied to the default route.

Example

```
(config-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.

3.71.3 ip policy multipath

Description	<p>Enable the function of simultaneous use of WAN connections in the balancing mode.</p> <p>Command with no prefix disables the function.</p>				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Interface type	IP				
Synopsis	<pre>(config-policy)> multipath</pre> <pre>(config-policy)> no multipath</pre>				
Example	<pre>(config-policy)> multipath</pre> <pre>Network::PolicyTable: "Policy0": enable multipath.</pre> <pre>(config-policy)> no multipath</pre> <pre>Network::PolicyTable: "Policy0": disable multipath.</pre>				
History	<table> <tr> <th>Version</th><th>Description</th></tr> <tr> <td>2.14</td><td>The ip policy multipath command has been introduced.</td></tr> </table>	Version	Description	2.14	The ip policy multipath command has been introduced.
Version	Description				
2.14	The ip policy multipath command has been introduced.				

3.71.4 ip policy permit

Description	<p>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.</p> <p>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.</p>								
Prefix no	Yes								
Change settings	Yes								
Multiple input	Yes								
Interface type	IP								
Synopsis	<pre>(config-policy)> permit global <interface> [order <order>]</pre> <pre>(config-policy)> no permit [global <interface>]</pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>interface</td><td><i>Interface</i></td><td>Full interface name or an alias.</td></tr></table>			Argument	Value	Description	interface	<i>Interface</i>	Full interface name or an alias.
Argument	Value	Description							
interface	<i>Interface</i>	Full interface name or an alias.							

Argument	Value	Description
order	<i>Integer</i>	The priority of global interface to which the IP Policy is permitted. Can take values in the range from 1 to 65534, but not more than the number of global interfaces.

Example

```
(config-policy)> permit global L2TP0 order 0
Network::PolicyTable: "Policy0": set permission to use L2TP0.
```

```
(config-policy)> no permit global L2TP0
Network::PolicyTable: "Policy0": set no permission to use L2TP0.
```

History

Version	Description
2.12	The ip policy permit command has been introduced.

3.71.5 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.

3.71.6 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	<i>Interface</i>	The name of a global IP interface to rate-limit its traffic for a group of policy assignees.
rate	<i>Integer</i>	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
auto	<i>Keyword</i>	Auto-ingress mode.

Example

```
(config-policy)> rate-limit WifiMaster1/WifiStation0 input auto  
Network::PolicyTable: "Policy0": set input rate limit to "auto".
```

```
(config-policy)> rate-limit WifiMaster1/WifiStation0 input 100000  
Network::PolicyTable: "Policy0": set input rate limit to "100000" ►  
kbps.
```

```
(config-policy)> rate-limit WifiMaster1/WifiStation0 no input  
Network::PolicyTable: "Policy0": reset input rate limit.
```

History

Version	Description
3.05	The ip policy rate-limit input command has been introduced.

3.71.7 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	<i>Interface</i>	The name of a global IP interface to rate-limit its traffic for a group of policy assignees.
rate	<i>Integer</i>	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
auto	<i>Keyword</i>	Auto-ingress mode.

Example

```
(config-policy)> rate-limit 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.

3.71.8 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	<i>IP address</i>	IP address of the destination network.
mask	<i>IP-mask</i>	Mask of the destination network. There are two ways to enter the mask: in the canonical form (for example, 255 . 255 . 255 . 0) and in the form of prefix bit length (for example, /24).
host	<i>IP address</i>	IP address of the destination node.
interface	<i>Interface</i>	Interface full name or an alias. Specified as the direction of the packet transferring, if the interface has a point-to-point channel connected that requires no additional addressing within the channel. If priority interface ip global is set on the interface, the route is added to the system table only if there is no other higher priority route with the same address.
gateway	<i>IP address</i>	IP address of the router in a directly connected network. Can be specified along with the interface name, if it is required to specify interface ip global priority. If no interface is specified, the systemd determines it automatically based on the current IP settings.
auto	<i>Keyword</i>	Allows you to apply the route when specified gateway becomes available.
metric	<i>Integer</i>	Route metrics. Ignored in the current implementation.
reject	<i>Keyword</i>	Enable route to use only the selected interface for routing the traffic to the specified destination. If the specified interface is not active, the traffic is not sent via other possible routes. This option works only when using the auto option and cannot be applied to the default route.

Example

```
(config-policy)> route 123.123.123.123 Wireguard1 auto reject
Network::RoutingTable: Added static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config-policy)> route 123.123.123.123 Wireguard1
Network::RoutingTable: Added static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config-policy)> no route 123.123.123.123 Wireguard1
Network::RoutingTable: Deleted static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config-policy)> no route 123.123.123.123
Network::RoutingTable: Deleted static route: 123.123.123.123/32 ►
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.

3.71.9 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.

Description

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

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.

3.72 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	<i>IP address</i>	IP address of the destination network.
mask	<i>IP-mask</i>	Mask of the destination network. There are two ways to enter the mask: in the canonical form (for example, 255 . 255 . 255 . 0) and in the form of prefix bit length (for example, /24).
host	<i>IP address</i>	IP address of the destination node.
default	<i>Keyword</i>	Helps specify default routes.
interface	<i>Interface</i>	Interface full name or an alias. Specified as the direction of the packet transferring, if the interface has a point-to-point channel connected that requires no additional addressing within the channel. If priority interface ip global is set on the interface, the route is added to the system table only if there is no other higher priority route with the same address.
gateway	<i>IP address</i>	IP address of the router in a directly connected network. Can be specified along with the interface name, if it is required to specify interface ip global priority. If no interface is specified, the systemd determines it automatically based on the current IP settings.
auto	<i>Keyword</i>	Allows you to apply the route when specified gateway becomes available.
metric	<i>Integer</i>	Route metrics. Ignored in the current implementation.

Argument	Value	Description
reject	<i>Keyword</i>	Enable route to use only the selected interface for routing the traffic to the specified destination. If the specified interface is not active, the traffic is not sent via other possible routes. This option works only when using the auto option and cannot be applied to the default route.

Example

```
(config)> ip route default Home
Network::RoutingTable: Added static route: 0.0.0.0/0 via Home.
```

```
(config)> no ip route default Home
Network::RoutingTable: No such route: 0.0.0.0/0 via Home.
```

```
(config)> ip route 123.123.123.123 Wireguard1 auto reject
Network::RoutingTable: Added static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config)> no ip route 123.123.123.123 Wireguard1
Network::RoutingTable: Deleted static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config)> ip route 123.123.123.123 Wireguard1
Network::RoutingTable: Added static route: 123.123.123.123/32 ►
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.

3.73 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	<pre>(config)> ip search-domain <domain></pre> <pre>(config)> no ip search-domain</pre>						
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>domain</td><td><i>String</i></td><td>The domain name to assign.</td></tr></table>	Argument	Value	Description	domain	<i>String</i>	The domain name to assign.
Argument	Value	Description					
domain	<i>String</i>	The domain name to assign.					
Example	<pre>(config)> ip search-domain my.example</pre> <pre>(config)> no ip search-domain my.example</pre>						
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.00</td><td>The ip search-domain command has been introduced.</td></tr></table>	Version	Description	2.00	The ip search-domain command has been introduced.		
Version	Description						
2.00	The ip search-domain command has been introduced.						

3.74 ip sip alg direct-media

Description	<p>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.</p> <p>Command with no prefix disables the feature.</p>				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Synopsis	<pre>(config)> ip sip alg direct-media</pre> <pre>(config)> no ip sip alg direct-media</pre>				
Example	<pre>(config)> ip sip alg direct-media</pre> <p>Sip::Alg: Direct media enabled.</p> <pre>(config)> no ip sip alg direct-media</pre> <p>Sip::Alg: Direct media disabled.</p>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>2.11</td><td>The ip sip alg direct-media command has been introduced.</td></tr> </tbody> </table>	Version	Description	2.11	The ip sip alg direct-media command has been introduced.
Version	Description				
2.11	The ip sip alg direct-media command has been introduced.				

3.75 ip sip alg port

Description Specify a port number for SIP messages other than the default port. By default, port number is 5060.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip sip alg port <port>
(config)> no ip sip alg port
```

Arguments

Argument	Value	Description
port	<i>Integer</i>	The port number.

Example

```
(config)> ip sip alg port 7090
Sip::Alg: Port set to 7090.
```

```
(config)> no ip sip alg port
Sip::Alg: Port reset to default.
```

History

Version	Description
2.12	The ip sip alg port command has been introduced.

3.76 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.

3.76.1 ip ssh cipher

Description

Set a symmetric key cipher for SSH session.

Command with **no** prefix removes the specified cipher.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config-ssh)> cipher <cipher>
```

```
(config-ssh)> no cipher <cipher>
```

Arguments

Argument	Value	Description
cipher	chacha20-poly1305@openssh.com	An encryption algorithm ChaCha20-Poly1305.
	aes128-ctr	An encryption algorithm AES128-CTR.
	aes256-ctr	An encryption algorithm AES1256-CTR.
	aes128-gcm@openssh.com	An encryption algorithm AES128-GCM.
	aes256-gcm@openssh.com	An encryption algorithm AES256-GCM.

Example

```
(config-ssh)> cipher chacha20-poly1305@openssh.com  
Ssh::Manager: Added cipher "chacha20-poly1305@openssh.com".
```

```
(config-ssh)> no cipher chacha20-poly1305@openssh.com  
Ssh::Manager: Use default ciphers.
```

History

Version	Description
3.04	The ip ssh cipher command has been introduced.

Version	Description
3.05	New encryption algorithms aes128-gcm@openssh.com, aes256-gcm@openssh.com were added.

3.76.2 ip ssh keygen

Description Regeneration of a given type key.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis `(config-ssh)> keygen <keygen>`

Arguments

Argument	Value	Description
keygen	default	Automatic generation of a new open key RSA2048 + ECDSA-NISTP521.
	rsa-1024	Automatic generation of a new open RSA-key with a length of 1024 bits.
	rsa-2048	Automatic generation of a new open RSA-key with a length of 2048 bits.
	rsa-4096	Automatic generation of a new open RSA-key with a length of 4096 bits.
	ecdsa-nistp256	Automatic generation of a new open ECDSA-key with a length of 256 bits.
	ecdsa-nistp384	Automatic generation of a new open ECDSA-key with a length of 384 bits.
	ecdsa-nistp521	Automatic generation of a new open ECDSA-key with a length of 521 bits.
	ed25519	Automatic generation of a new open ED25519 key with a length of 256 bits.

Example

```
(config-ssh)> keygen default  
Ssh::Manager: Key generation is in progress...
```

History

Version	Description
2.12	The ip ssh keygen command has been introduced.

3.76.3 ip ssh lockout-policy

Description Set SSH bruteforce detection parameters for public interfaces. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-ssh)> lockout-policy <threshold> [ <duration> [
<observation-window> ]]

(config-ssh)> no lockout-policy
```

Arguments

Argument	Value	Description
threshold	<i>Integer</i>	The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 4 to 20.
duration	<i>Integer</i>	An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 60.
observation-window	<i>Integer</i>	Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 10.

Example

```
(config-ssh)> lockout-policy 10 30 2
Ssh::Manager: Bruteforce detection is reconfigured.
```

```
(config-ssh)> no lockout-policy
Ssh::Manager: Bruteforce detection is disabled.
```

```
(config-ssh)> lockout-policy 0
Ssh::Manager: Bruteforce detection reset to default.
```

History

Version	Description
2.12	The ip ssh lockout-policy command has been introduced.

3.76.4 ip ssh port

Description Specify port number for SSH connection. By default, 22 port number is used.

Command with **no** prefix resets port number to default.

Prefix no Yes

Change settings Yes

Multiple input No**Interface type** IP

Synopsis

```
(config-ssh)> port <number>
```

```
(config-ssh)> no port
```

Arguments

Argument	Value	Description
number	<i>Integer</i>	Port number. Can take values in the range from 1 to 65535 inclusively.

Example

```
(config-ssh)> port 2626
```

Ssh::Manager: Port changed to 2626.

```
(config-ssh)> no port
```

Ssh::Manager: Port reset to 22.

History

Version	Description
2.12	The ip ssh port command has been introduced.

3.76.5 ip ssh security-level

Description Set SSH security level. By default, private value is set.**Prefix no** No**Change settings** Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-ssh)> security-level (public | private | protected)
```

Arguments

Argument	Value	Description
public	<i>Keyword</i>	Access to the SSH server is allowed for public, private and protected interfaces.
private	<i>Keyword</i>	Access to the SSH server is allowed for private interfaces.
protected	<i>Keyword</i>	Access to the SSH server is allowed for private and protected interfaces.

Example

```
(config-ssh)> security-level protected
```

Ssh::Manager: Security level changed to protected.

History	Version	Description
	2.12	The ip ssh security-level command has been introduced.

3.76.6 ip ssh session timeout

Description Set the lifetime of inactive session for SSH connection. By default, 300 value is used, i.e. the function of activity tracking within a session is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-ssh)> session timeout <timeout>
(config-ssh)> no session timeout
```

Arguments	Argument	Value	Description
	timeout	<i>Integer</i>	The lifetime of inactive session. Can take values in the range from 5 to $2^{32}-1$ seconds inclusively.

Example

```
(config-ssh)> session timeout 123456
Ssh::Manager: A session timeout value set to 123456 seconds.
```

```
(config-ssh)> no session timeout
Ssh::Manager: A session timeout reset.
```

History	Version	Description
	3.03	The ip ssh session timeout command has been introduced.

3.77 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 [security 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	<i>Interface</i>	Input interface name (full name or an alias).
address	<i>IP address</i>	Along with mask <i>mask</i> sets the range of destination IP addresses that are to be translated.
mask	<i>IP-mask</i>	Translation range mask. There are two ways to enter the mask: the canonical form (for

Argument	Value	Description
		example, 255.255.255.0) and the form of prefix bit length (for example, /24).
port	<i>Integer</i>	TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated.
end-port	<i>Integer</i>	The end of the range of ports.
to-address	<i>IP address</i>	The destination address after translation.
to-host	<i>MAC address</i>	The destination MAC address after translation. Only MAC address from known hosts are accepted. If the known host is deleted, then the associated rules will be deleted too.
to-port	<i>Integer</i>	TCP/UDP port number after translation. If not specified, the destination port remains the same.
to-interface	<i>Interface</i>	Interface name after translation.

Example

```
(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 180.100.100.10
Network::StaticNat: Static NAT rule has been added.
```

```
(config)> ip static 192.168.1.84 255.255.255.255 180.100.100.10
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.

3.78 ip static rule

Description	<p>Disable or enable IP address translation rule, set rule operation time by schedule or assign new position in the list of rules.</p> <p>Command with no prefix enables or disables the rule or removes the rule schedule.</p>
Prefix no	Yes
Change settings	Yes
Multiple input	Yes
Interface type	IP
Synopsis	<pre>(config)> ip static rule <index> (disable schedule <schedule> order <new-index>)</pre> <pre>(config)> no ip static rule <index> (disable schedule)</pre>

Arguments

Argument	Value	Description
index	<i>Integer</i>	The translation rule number.
disable	<i>Keyword</i>	Disable the translation rule.
schedule	<i>Schedule</i>	The name of the schedule that was created with schedule group of commands.
new-index	<i>Integer</i>	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.

3.79 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.

3.79.1 ip telnet lockout-policy

Description Set Telnet bruteforce detection parameters for public interfaces. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config-telnet)> **lockout-policy** *<threshold>* [*<duration>*] [*<observation-window>*]
(cconfig-telnet)> **no lockout-policy**

Arguments	Argument	Value	Description
	threshold	<i>Integer</i>	The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 4 to 20.

Argument	Value	Description
duration	<i>Integer</i>	An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 60.
observation-window	<i>Integer</i>	Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 10.

Example

```
(config-telnet)> lockout-policy 10 30 2
Telnet::Server: Bruteforce detection is reconfigured.
```

```
(config-telnet)> no lockout-policy
Telnet::Server: Bruteforce detection is disabled.
```

```
(config-telnet)> lockout-policy 0
Telnet::Server: Bruteforce detection is enabled.
```

History

Version	Description
2.08	The ip telnet lockout-policy command has been introduced.

3.79.2 ip telnet port

Description Specify port number for telnet connection. By default, 23 port number is used.

Command with **no** prefix resets port number to default.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config-telnet)> **port** *<number>*

(config-telnet)> **no port**

Arguments

Argument	Value	Description
number	<i>Integer</i>	Port number. Can take values in the range from 1 to 65535 inclusively.

Example

```
(config-telnet)> port 2525
Telnet::Server: Port unchanged.
```



```
(config-telnet)> no port
Telnet::Server: Port unchanged.
```

History

Version	Description
2.08	The ip telnet port command has been introduced.

3.79.3 ip telnet security-level

Description Set Telnet security level. By default, private value is set.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis (config-telnet)> **security-level** (**public** | **private** | **protected**)

Arguments

Argument	Value	Description
public	<i>Keyword</i>	Access to the Telnet server is allowed for public, private and protected interfaces.
private	<i>Keyword</i>	Access to the Telnet server is allowed for private interfaces.
protected	<i>Keyword</i>	Access to the Telnet server is allowed for private and protected interfaces.

Example

```
(config-telnet)> security-level protected
Telnet::Manager: Security level changed to protected.
```

History

Version	Description
2.08	The ip telnet security-level command has been introduced.

3.79.4 ip telnet session max-count

Description Set the maximal number of simultaneous sessions for telnet connection. By default, 4 value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No**Interface type** IP

Synopsis

```
(config-telnet)> session max-count <count>
```

```
(config-telnet)> no session max-count
```

Arguments

Argument	Value	Description
count	<i>Integer</i>	The maximal number of simultaneous sessions. Can take values in the range from 1 to 4 inclusively.

Example

```
(config-telnet)> session max-count 4
Telnet::Server: The maximum session count set to 4.
```

```
(config-telnet)> no session max-count
Telnet::Server: The maximum session count reset to 4.
```

History

Version	Description
2.08	The ip telnet session max-count command has been introduced.

3.79.5 ip telnet session timeout

Description Set the lifetime of inactive session for telnet connection. By default, 300 value is used which means that the function of activity tracking within a session is disabled.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Interface type** IP

Synopsis

```
(config-telnet)> session timeout <timeout>
```

```
(config-telnet)> no session timeout
```

Arguments

Argument	Value	Description
timeout	<i>Integer</i>	The lifetime of inactive session. Can take values in the range from 5 to $2^{32}-1$ seconds inclusively.

Example

```
(config-telnet)> session timeout 600
Telnet::Server: A session timeout value set to 600 seconds.
```

```
(config-telnet)> no session timeout
Telnet::Server: A session timeout reset.
```

History

Version	Description
2.08	The ip telnet session timeout command has been introduced.

3.80 ip traffic-shape host

Description

Set the limit of data rate on a specified known host in both directions. By default speed is not limited.

Command with **no** prefix removes the setting for specified host. If you use no arguments, the entire list of rate limits for all hosts will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config)> ip traffic-shape host <mac> rate <rate> [ asymmetric
<upstream-rate> ] [ schedule <schedule> ]
```

```
(config)> no ip traffic-shape host [ <mac> ]
```

Arguments

Argument	Value	Description
mac	<i>MAC address</i>	MAC address of the known host.
rate	<i>Integer</i>	Value of data download rate in Kbps. Limit should be in the range from 64 Kbps to 1 Gbps.
upstream-rate	<i>Integer</i>	Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps.
schedule	<i>Schedule</i>	The name of the schedule that was created with schedule group of commands.

Example

```
(config)> ip traffic-shape host a8:1e:82:81:f1:21 rate 80
TrafficControl::Manager: "a8:1e:82:81:f1:21" host rate limited ►
to DL 80 / UL 80 Kbits/sec.
```

```
(config)> ip traffic-shape host a8:1e:82:81:f1:21 rate 80 ►
asymmetric 64
```

```
TrafficControl::Manager: "a8:1e:82:81:f1:21" host rate limited ►
to DL 80 / UL 64 Kbits/sec..
```

```
(config)> ip traffic-shape host a8:1e:82:81:f1:21 rate 80 ►
asymmetric 64 schedule Update
TrafficControl::Manager: "a8:1e:82:81:f1:21" host rate limited ►
to DL 80 / UL 64 Kbits/sec (controlled by schedule Update).
```

```
(config)> no ip traffic-shape host a8:1e:82:81:f1:21
TrafficControl::Manager: Rate limit removed for host ►
"a8:1e:82:81:f1:21".
```

```
(config)> no ip traffic-shape host a8:1e:82:81:f1:21
TrafficControl::Manager: Rate limit removed for host ►
"a8:1e:82:81:f1:21".
```

```
(config)> no ip traffic-shape host
TrafficControl::Manager: Rate limits for all hosts removed.
```

History

Version	Description
2.05	The ip traffic-shape host command has been introduced.
2.08	The schedule argument was added.
3.04	The upstream-rate argument was added.

3.81 ip traffic-shape unknown-host

Description Set the data rate limitation for unregistered devices in both directions. By default, speed is unlimited.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip traffic-shape unknown-host rate <rate> [ asymmetric
<upstream-rate> ]
```

```
(config)> no ip traffic-shape unknown-host rate
```

Arguments

Argument	Value	Description
rate	<i>Integer</i>	The data download rate in Kbps. Value could be in the range from 64 Kbps to 1 Gbps.
upstream-rate	<i>Integer</i>	Data upload rate in Kbps. Value can be in the range from 64 Kbps to 1 Gbps.

Example

```
(config)> ip traffic-shape unknown-host rate 80
TrafficControl::Manager: Rate limit for unknown hosts set to 80 ►
Kbits/sec.
```

```
(config)> ip traffic-shape unknown-host rate 80 asymmetric 64
TrafficControl::Manager: Rate limit for unknown hosts set to ►
80/64 Kbits/sec.
```

```
(config)> no ip traffic-shape unknown-host rate
TrafficControl::Manager: Rate limit for unknown hosts removed.
```

History

Version	Description
2.09	The ip traffic-shape unknown-host command has been introduced.
3.04	The upstream-rate argument was added.

3.82 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	<i>Interface</i>	Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command.

Example

```
(config)> 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.

3.83 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	<i>Integer</i>	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.

3.84 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	<i>Keyword</i>	Access to the iPerf3 server is allowed for public, private and protected interfaces.
private	<i>Keyword</i>	Access to the iPerf3 server is allowed for private interfaces.

Argument	Value	Description
protected	<i>Keyword</i>	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.

3.85 ipv6 local-prefix

Description

Configure a local (ULA) prefix. Argument can be a literal prefix or **default**, which generates a persistent unique prefix automatically.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> ipv6 local-prefix (default | <prefix>)
```

```
(config)> no ipv6 local-prefix [default | <prefix>]
```

Arguments

Argument	Value	Description
default	<i>Keyword</i>	Generate persistent unique prefix.
prefix	<i>Prefix</i>	Local ULA prefix. Must be a valid prefix in the block fd00::/8 with a prefix length no longer than 48.

Example

```
(config)> ipv6 local-prefix default
Ip6::Prefixes: Default ULA prefix enabled.
```

```
(config)> ipv6 local-prefix fd01:db8:43::/48
Ip6::Prefixes: Added static prefix: fd01:db8:43::/48.
```

```
(config)> no ipv6 local-prefix default
Ip6::Prefixes: Default ULA prefix disabled.
```

```
(config)> no ipv6 local-prefix fd01:db8:43::/48
Ip6::Prefixes: Deleted static prefix: fd01:db8:43::/48.
```

History

Version	Description
2.00	The ipv6 local-prefix command has been introduced.

3.86 ipv6 name-server

Description

Configure DNS server IPv6-addresses. Addresses saved in this fashion are called static as opposite to dynamic — as registered by *PPP* or *DHCP* services.

ipv6 name-server command can be entered multiple times if several DNS server addresses need to be setup.

Command with **no** prefix removes the specified DNS server address from the static and the active lists if the command is furnished with arguments, or clears the list of static addresses if the command has no arguments.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config)> ipv6 name-server <address> [ <domain> [ on <interface> ] ]
```

```
(config)> no ipv6 name-server [ <address> [ <domain> [ on <interface> ] ] ]
```

Arguments

Argument	Value	Description
address	<i>IPv6-address</i>	Name server address.
domain	<i>String</i>	Domain for which the server will be used. In resolving names the DNS-proxy first selects the address of the server with name best matching the requested domain. If the domain is not specified, the server will be used for all requests. Use "" as default domain.
interface	<i>Interface</i>	Interface name to configure.

Example

```
(config)> ipv6 name-server 2001:4860:4860::8888
```

```
Dns::Manager: Name server 2001:4860:4860::8888 added, domain ► (default).
```

```
(config)> ipv6 name-server 123::456 "" on ISP
```

```
Dns::InterfaceSpecific: "GigabitEthernet1": name server 123::456 ► added, domain (default).
```

```
(config)> ipv6 name-server 2001:4860:4860::8888 google.com
```

```
Dns::Manager: Name server 2001:4860:4860::8888 added, domain ► google.com.
```



```
(config)> no ipv6 name-server 2001:4860:4860::8888
Dns::Manager: Name server 2001:4860:4860::8888, domain (default) ►
deleted.
```

```
(config)> no ipv6 name-server 123::456 "" on ISP
Dns::InterfaceSpecific: Name server 123::456 deleted, domain ►
(default).
```

```
(config)> no ipv6 name-server 2001:4860:4860::8888 google.com
Dns::Manager: Name server 2001:4860:4860::8888, domain google.com ►
deleted.
```

```
(config)> no ipv6 name-server
Dns::Manager: Static name server list cleared.
```

History

Version	Description
2.00	The ipv6 name-server command has been introduced.
4.00	The interface argument was added.

3.87 ipv6 pass

Description Enable Pass Through mode on the router for IPv6-packets. By default, the feature is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)>  ipv6 pass through <wan-iface> <lan-iface>
(config)> no ipv6 pass
```

Arguments

Argument	Value	Description
wan-iface	<i>Interface</i>	Full WAN-interface name or an alias.
lan-iface	<i>Interface</i>	Full LAN-interface name or an alias.

Example

```
(config)> ipv6 pass through ISP Home
Ip6::Pass: Configured pass from "GigabitEthernet1" to "Bridge0".
```

```
(config)> no ipv6 pass
Ip6::Pass: Disabled.
```

History

Version	Description
2.06	The ipv6 pass command has been introduced.

3.88 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	<i>Prefix</i>	IPv6 prefix.
default	<i>Keyword</i>	Default prefix.
interface	<i>Interface</i>	Full interface name or an alias.
gateway	<i>IP address</i>	IP address of the router in a directly connected network.

Example

```
(config)> ipv6 route 2002:c100:aeb5::/48 ISP 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.

3.89 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	<i>Interface</i>	Input interface name (full name or an alias).
mac	<i>MAC address</i>	MAC address of host.
port	<i>Integer</i>	TCP/UDP port number for which incoming request comes.

Argument	Value	Description
end-port	<i>Integer</i>	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.

3.90 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	<i>Integer</i>	The translation rule number.
disable	<i>Keyword</i>	Disable the translation rule.
schedule	<i>Schedule</i>	The name of the schedule that was created with schedule group of commands.

Example

```
(config)> 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.

3.91 ipv6 subnet

Description

Access to a group of commands to configure a LAN IPv6 segment. If the segment is not found, the command tries to create it.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-subnet)

Synopsis

```
(config)>  ipv6 subnet <name>
```

```
(config)> no ipv6 subnet [ <name> ]
```

Arguments

Argument	Value	Description
name	<i>String</i>	Subnet name or an alias.

Example

```
(config)> ipv6 subnet Default
(config-subnet)>
```

History

Version	Description
2.00	The ipv6 subnet command has been introduced.

3.91.1 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	<i>Interface</i>	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.

3.91.2 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	<i>IPv6-address</i>	Address of primary name DNS server.
address2	<i>IPv6-address</i>	Address of secondary name DNS server.
disable	<i>Keyword</i>	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.

3.91.3 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.

3.91.4 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	<i>Integer</i>	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.

3.91.5 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	<i>Integer</i>	The value must be less than prefix length.

Example

```
(config-subnet)> prefix delegate 63
Network::Ip6::Subnets: Delegate length is /63 assigned to subnet ►
"Default".
```



```
(config-subnet)> no prefix delegate
Network::Ip6::Subnets: Prefix delegation disabled for subnet ►
"Default".
```

History

Version	Description
4.00	The ipv6 subnet prefix delegate command has been introduced.

3.91.6 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	<i>Integer</i>	Prefix length can take values in the range from /32 to /64.

Example

```
(config-subnet)> prefix length 62
Network::Ip6::Subnets: Length is /62 assigned to subnet "Default".
```

```
(config-subnet)> no prefix length
Network::Ip6::Subnets: Length reset to default for subnet ►
"Default".
```

History

Version	Description
4.00	The ipv6 subnet prefix length command has been introduced.

3.92 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.

3.93 known host

Description Set known host.**Prefix no** Yes**Change settings** Yes**Multiple input** Yes

Synopsis

```
(config)> known host <name> <mac>
(config)> no known host [ mac ]
```

Arguments

Argument	Value	Description
name	<i>String</i>	Arbitrary host name.
mac	<i>MAC address</i>	MAC address.

Example

```
(config)> known host MY 00:0e:c6:a2:22:a1
Core::KnownHosts: New host "MY" has been created.

(config)> no known host 00:0e:c6:a1:26:a8
Core::KnownHosts: Host 00:0e:c6:a1:26:a8 has been removed.
```

History

Version	Description
2.00	The known host command has been introduced.

3.94 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	<pre>(config)> mws acquire <candidate> [eula-accept] [dpn-accept] [no-update] (config)> no mws acquire <candidate></pre>

Argument	Value	Description
candidate	<i>String</i>	Device ID — MAC address or CID.
eula-accept	<i>Keyword</i>	Send eula accept command.
dpn-accept	<i>Keyword</i>	Send Device Privacy Notice accept.
no-update	<i>Keyword</i>	Acquisition without firmware update confirmation.

Example	<pre>(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.</pre>
----------------	---

Version	Description
2.15	The mws acquire command has been introduced.

3.95 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.

3.96 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.

3.97 mws log stp

Description Enable STP logging for the interface. Allows you to track sent and received BPDU packets.

Command with **no** prefix disables logging for specified interface. If you use no argument, the entire list of STP logging will be removed.

Prefix no Yes

Change settings No

Multiple input Yes

Synopsis

```
(config)> mws log stp <interface>
```

```
(config)> no mws log stp [ <interface> ]
```

Arguments

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

Example

```
(config)> mws log stp Bridge0
Network::Interface::Rtx::WifiController: Enabled STP logging for ►
"Bridge0".
```

```
(config)> no mws log stp Bridge0
Network::Interface::Rtx::WifiController: Disabled STP logging ►
for "Bridge0".
```

```
(config)> no mws log stp
Network::Interface::Rtx::WifiController: Disabled all STP logging.
```

History

Version	Description
3.06	The mws log stp command has been introduced.

3.98 mws member

Description Command with **no** prefix removes **MWS** member. If you use no argument, the entire list of members will be cleared.

Prefix no Yes

Change settings No

Multiple input No

Synopsis

```
(config)> no mws member [ member ]
```

Arguments

Argument	Value	Description
member	<i>String</i>	Device ID — MAC address or CID.

Example

```
(config)> mws no member 2937a388-0d00-11e7-8029-7119319f930e
Mws::MemberList: Member 2937a388-0d00-11e7-8029-7119319f930e ►
pending factory reset.
```

History

Version	Description
2.15	The mws member command has been introduced.

3.99 mws member debug

Description

Enable [MWS](#) member debug. By default, setting is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> mws member <member> debug
```

```
(config)> no mws member <member> debug
```

Arguments

Argument	Value	Description
member	<i>String</i>	Device ID — MAC address or CID.

Example

```
(config)> mws member 60:31:97:3c:11:12 debug
Mws::MemberList: Member "60:31:97:3c:11:12" ►
(7207838e-af7d-11e6-8011-25463bd03812) RCI debug enabled.
```

```
(config)> no mws member 60:31:97:3c:11:12 debug
Mws::MemberList: Member "60:31:97:3c:11:12" ►
(7207838e-af7d-11e6-8011-25463bd03812) RCI debug disabled.
```

History

Version	Description
3.05	The mws member debug command has been introduced.

3.100 mws member dpn-accept

Description Accept *DPN* for *MWS* member.

Prefix no No

Change settings No

Multiple input No

Synopsis (config)> **mws member** *member* **dpn-accept**

Arguments

Argument	Value	Description
member	<i>String</i>	Device ID — MAC address or CID.

Example

```
(config)> mws member 7207838e-af7d-11e6-8029-25463bd03828 ►
dpn-accept
Mws::Controller: Candidate "ab1409a2-0f87-11e8-8f23-3d5f5921b253" ►
acquire started.
```

History

Version	Description
3.05	The mws member dpn-accept command has been introduced.

3.101 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	<i>String</i>	Device ID — MAC address or CID.
port	<i>Integer</i>	The LAN port number.

Argument	Value	Description
interface	<i>Interface</i>	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.

3.102 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	<i>String</i>	Device ID — MAC address or CID.
port	<i>Integer</i>	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.

3.103 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	<i>String</i>	Device ID — MAC-address or CID.
interval	<i>Integer</i>	Timeout for reboot in seconds. Can take values in the range from 0 to 60 inclusively). If not specified, the reboot will be executed immediately.

Example

```
(config)> mws member 7207838e-af7d-11e6-8029-25463bd03828 reboot ►
10
Mws::MemberList: Member "50:ff:21:1a:b1:f2" ►
(7207838e-af7d-11e6-8029-25463bd03828) pending reboot.
```

History

Version	Description
3.08	The mws member reboot command has been introduced.

3.104 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	<i>String</i>	Device ID — MAC address or CID.
channel	<i>String</i>	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.

3.105 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	<i>String</i>	Device ID — MAC address or CID.

Example

```
(config)> mws member 21:ff:22:32:18:af update check
Mws::Controller::Updater: "21:ff:22:32:18:af": checking for an ►
update.
```

History

Version	Description
4.00	The mws member update check command has been introduced.

3.106 mws member update start

Description Start the *MWS* member update.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> mws member <member> update start`

Arguments

Argument	Value	Description
member	<i>String</i>	Device ID — MAC address or CID.

Example

```
(config)> mws member 21:ff:22:32:18:af update start
Mws::Controller::Updater: "21:ff:22:32:18:af": pending update, ►
"(auto)" sandbox.
```

History

Version	Description
4.00	The mws member update start command has been introduced.

3.107 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	<i>String</i>	Device ID — MAC address or CID.

Example

```
(config)> mws member 21:ff:22:32:18:af update stop
Mws::Controller::Updater: "21:ff:22:32:18:af": update stopped.
```

History

Version	Description
4.00	The mws member update stop command has been introduced.

3.108 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.

3.109 mws revisit

Description Re-read status of potential *MWS* member.

Prefix no Yes

Change settings No

Multiple input No

Synopsis (config)> **mws revisit** <candidate>
(config)> **no mws revisit** <candidate>

Arguments

Argument	Value	Description
candidate	<i>String</i>	Device ID — MAC address or CID.

Example (config)> **mws revisit 50:ff:20:08:71:62**
Mws::Controller: Candidate "50:ff:20:08:71:62" revisit started.
(config)> **mws no revisit 50:ff:20:08:71:62**
Mws::Controller: Candidate "50:ff:20:08:71:62" revisit stopped.

History

Version	Description
2.15	The mws revisit command has been introduced.

3.110 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.

3.111 mws stp priority

Description

Set the STP Bridge Priority. By default, the value 32768 is used.

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

Prefix no Yes

Change settings No

Multiple input Yes

Synopsis

```
(config)> mws stp priority <priority>
```

```
(config)> no mws stp priority
```

Arguments

Argument	Value	Description
priority	0	The STP Bridge Priority value.
	4096	
	8192	
	12288	
	16384	
	20480	
	24576	
	28672	
	32768	
	36864	
	40960	
	45056	
	49152	
	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.

3.112 mws update start

Description Start the *MWS* update.

If there are updates for members, then the members are updated sequentially. Then, if there is an update for the controller, then the controller update is started. If there are no updates, then nothing happens.

Prefix no No

Change settings No

Multiple input No

Synopsis `(config)> mws update start [controller | members]`

Arguments

Argument	Value	Description
controller	<i>Keyword</i>	Update the controller, don't try to update members. If members update is running, the controller will be updated after them.
members	<i>Keyword</i>	Update a members, don't try to update the controller.

Example

```
(config)> mws update start
Mws::Controller::Manager: Updating MWS.
```

```
(config)> mws update start controller
Mws::Controller::Manager: Updating controller.
```

```
(config)> mws update stop
Mws::Controller::Manager: Updating members.
```

History

Version	Description
4.00	The mws update start command has been introduced.

3.113 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.

3.114 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	<pre>(config)> mws wlan <id></pre> <pre>(config)> no mws wlan [<id>]</pre>							
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>id</td><td>String</td><td>Wireless network identifier.</td></tr></table>		Argument	Value	Description	id	String	Wireless network identifier.
Argument	Value	Description						
id	String	Wireless network identifier.						
Example	<pre>(config)> mws wlan wlan0</pre> <pre>Mws::Wlan::Manager: Added the WLAN "wlan0".</pre> <pre>(config-mws-wlan)></pre> <pre>(config)> no mws wlan wlan0</pre> <pre>Mws::Wlan::Manager: Removed the WLAN "wlan0".</pre> <pre>(config)> no mws wlan</pre> <pre>Mws::Wlan::Manager: Removed all WLAN configurations.</pre>							
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>5.01</td><td>The mws wlan command has been introduced.</td></tr></table>		Version	Description	5.01	The mws wlan command has been introduced.		
Version	Description							
5.01	The mws wlan command has been introduced.							

3.114.1 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.
	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.

3.114.2 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.

3.114.3 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	<i>Interface</i>	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.

3.114.4 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	<i>String</i>	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.

3.114.5 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.

3.114.6 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 ►
"wp2+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.

3.114.7 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.

3.114.8 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.

3.114.9 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	<i>String</i>	The value of <i>IAPP</i> 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.

3.114.10 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	<i>String</i>	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.

3.114.11 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.

3.114.12 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.

3.114.13 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.

3.114.14 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.

3.114.15 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.

3.114.16 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.

3.114.17 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	<i>Schedule</i>	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.

3.114.18 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	<i>String</i>	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.

3.114.19 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.

3.114.20 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	<i>String</i>	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.

3.114.21 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	<i>Integer</i>	The key number. Overall, up to 4 keys could be specified.
key	<i>String</i>	The key value.
default	<i>Keyword</i>	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.

3.114.22 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.

3.114.23 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	<i>String</i>	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.

3.114.24 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	<i>IP address</i>	RADIUS server IP address.
port	<i>Integer</i>	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.

3.114.25 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.

3.114.26 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	<i>String</i>	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.

3.114.27 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.

3.114.28 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.

Argument	Value	Description
	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.

3.114.29 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.

3.114.30 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.

3.115 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.

3.116 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.

3.116.1 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.

Argument	Value	Description
token	<i>Integer</i>	Authentication token (ID).
iface	<i>Interface</i>	Full interface name or an alias.

Example

```
(nextdns)> assign 11:24:c4:54:bc:59 1f2a36
NextDns::Client: Reassociated host "11:24:c4:54:bc:59" with ►
profile "1f2a36".
```

```
(nextdns)> assign interface Home 1f2a36
NextDns::Client: Associated interface "Home" with profile ►
"1f2a36".
```

```
(nextdns)> no assign 11:24:c4:54:bc:59
NextDns::Client: Removed profile for host "11:24:c4:54:bc:59".
```

```
(nextdns)> no assign Bridge0
NextDns::Client: Removed profile for interface "Bridge0".
```

History

Version	Description
3.08	The nextdns assign command has been introduced.

3.116.2 nextdns authenticate

Description Specify login for [NextDNS](#) account.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(nextdns)> authenticate <login> <password> [ <pin> ]
```

```
(nextdns)> no authenticate
```

Arguments

Argument	Value	Description
login	<i>String</i>	Login to NextDNS account.
password	<i>String</i>	Password to NextDNS account.
pin	<i>String</i>	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.

3.116.3 nextdns authtoken

Description Specify authentication token for *NextDNS* account.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(nextdns)> authtoken <authtoken>
(nextdns)> no authtoken
```

Arguments	Argument	Value	Description
	authtoken	<i>String</i>	Authentication token (ID) for <i>NextDNS</i> account.

Example

```
(nextdns)> authtoken 1f2a36
NextDns::Client: Set authentication token.
```

```
(nextdns)> no authtoken
NextDns::Client: Cleared authentication token.
```

History	Version	Description
	3.08	The nextdns authtoken command has been introduced.

3.116.4 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.

3.117 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.

3.117.1 ndns book-name

Description Reserve Public DNS device hostname allocation.

For hostname transmission to another Keenetic device `transfer-code` parameter is used.

To transfer hostname it is necessary:

1. Execute command with `transfer-code` on the transmitting side.
2. Execute the same command with the same parameters on the receiving side.

Lifetime of `transfer-code` is 1 week.

Prefix no No

Change settings Yes

Multiple input No

Synopsis (ndns)> **book-name** <name> <domain> [<access> [**ipv6** <access6>] | <transfer-code>]

Arguments

Argument	Value	Description
name	<i>String</i>	The hostname for allocation.
domain	<i>String</i>	Second-level domain.
access	auto	Automatic access type.
	cloud	Hostname is registered on the cloud server IP address, HTTP traffic is tunneled to the Racer.
	direct	Hostname is registered on the Racer WAN-address.
access6	cloud	Enable cloud mode for IPv6 address.
transfer-code	<i>Hex</i>	Code for domain transmission to another Keenetic device. The length is 32 symbols.

Example

```
(ndns)> book-name test keenetic.pro

done, layout = view, title = NDSS::ndns/bookName ►
(Public DNS Hostname Booking):
  client, geo = *, ip = 193.0.174.200, 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 = ►
193.0.174.137, format =
clean, date = 2018-12-13T09:04:41.939Z, standalone = false:

    fields:
        field, name = name, title = Public Name:
        field, name = domain, title = Domain Name:
        field, name = updated, title = Updated, type ►
= date, variant = date:
        field, name = address, title = IP Address:
        field, name = access, title = Access Mode ►
IP4, default = unknown:
        field, name = address6, title = IPv6 Address:
        field, name = access6, title = Access Mode ►
IPv6, default = unknown:
        field, name = transfer, title = Transfer:

    name: 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 = 193.0.174.200, format = ►
clean, date = 2019-05-23T09:12:29.145Z, standalone = false:

    fields:
        field, name = name, title = Public Name:
        field, name = domain, title = Domain Name:
        field, name = updated, title = Updated, type ►
= date, variant = date:
        field, name = address, title = IP Address:
        field, name = access, title = Access Mode ►
IP4, default = unknown:
        field, name = address6, title = IPv6 Address:
        field, name = access6, title = Access Mode ►
IPv6, default = unknown:
        field, name = transfer, title = Transfer:

    name: 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.

3.117.2 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	<i>String</i>	The hostname for allocation.

Example

```

(ndns)> check-name testname

    list:
      item:
        domain: keenetic.link
        name: testname
      available: yes
      acme: yes

      item:
        domain: keenetic.pro
        name: testname
      available: no
      acme: yes

Ndns::Client: Check completed.

```

History

Version	Description
2.07	The ndns check-name command has been introduced.

3.117.3 ndns drop-name

Description Drop Public DNS device hostname allocation.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(ndns)> drop-name <name> <domain>`

Arguments

Argument	Value	Description
name	<i>String</i>	The hostname for dropping.
domain	<i>String</i>	Second-level domain.

Example

```
(ndns)> drop-name 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 = 193.0.174.200, 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.

3.117.4 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 = 193.0.174.200, 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.

3.117.5 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 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 <i>Static NAT (NAT 1-1)</i> 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 = 193.0.174.200, 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 = 193.0.174.200, 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: 193.0.174.200
            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 = 194.226.11.187, 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 = 193.0.174.200, 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: 193.0.174.200
    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 = 193.0.174.200, 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 .

3.118 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.

3.118.1 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.

3.118.2 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	<i>MAC address</i>	MAC address of registered host.
profile	<i>String</i>	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.

3.118.3 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	<i>Interface</i>	Network interface name.
profile	<i>String</i>	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.

3.118.4 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	<i>String</i>	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.

3.118.5 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	<i>String</i>	NTCE filter profile name.
	application	<i>String</i>	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.

3.118.6 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	<i>String</i>	NTCE filter profile name.
description	<i>String</i>	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.

3.118.7 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	<i>String</i>	NTCE filter profile name.
group	<i>String</i>	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.

3.118.8 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	<i>String</i>	NTCE filter profile name.
schedule	<i>Schedule</i>	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.

3.118.9 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	<i>String</i>	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.

3.118.10 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.

3.118.11 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).
	filetransferring	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.

3.118.12 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.

3.118.13 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	<i>Interface</i>	The name of a global interface to rate-limit.
rate	<i>Integer</i>	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
auto	<i>Keyword</i>	Auto-ingress mode.

Example

```
(config-ntce)> upstream rate-limit ISP input auto
Ntce::Upstreams: Set ISP input rate limit to "auto".
```

```
(config-ntce)> upstream rate-limit ISP input 1000000
Ntce::Upstreams: Set ISP input rate limit to "1000000" kbps.
```

```
(config-ntce)> no upstream rate-limit ISP input
Ntce::Upstreams: Reset ISP input rate limit.
```

History

Version	Description
4.01	The ntce upstream rate-limit input command has been introduced.

3.118.14 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	<i>Interface</i>	The name of a global interface to rate-limit.
rate	<i>Integer</i>	The ingress rate limit in kbps. Can take values in the range from 64 to 1000000.
auto	<i>Keyword</i>	Auto-ingress mode.

Example

```
(config-ntce)> upstream rate-limit ISP output auto  
Ntce::Upstreams: Set ISP output rate limit to "auto".
```

```
(config-ntce)> upstream rate-limit ISP output 1000000  
Ntce::Upstreams: Set ISP output rate limit to "1000000" kbps.
```

```
(config-ntce)> no upstream rate-limit ISP output  
Ntce::Upstreams: Reset ISP output rate limit.
```

History

Version	Description
4.01	The ntce upstream rate-limit output command has been introduced.

3.119 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.

3.120 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.

3.121 ntp server

Description

Add a new *NTP* server to the list. You can enter up to 8 *NTP* servers.

Command with **no** prefix deletes *NTP* server from the list. If you use no argument, the entire list of *NTP* servers will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config)> ntp server <server>
```

```
(config)> no ntp server [ <server> ]
```

Arguments	Argument	Value	Description
	server	<i>String</i>	Host of <i>NTP</i> server.

Example

```
(config)> ntp server pool.ntp.org
Ntp::Client: Server "pool.ntp.org" has been added.
```

```
(config)> no ntp server
Ntp::Client: All NTP servers removed.
```

History

Version	Description
2.00	The ntp server command has been introduced.

3.122 ntp source

Description Set a specific source IP address for *NTP* service.
Command with **no** prefix removes the setting.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ntp source <address>
```

```
(config)> no ntp source
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	The source IP address for all 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.

3.123 ntp sync-period

Description Set a period for time synchronization. By default, 1 week is used.

Command with **no** prefix resets time synchronization to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ntp sync-period <period>
(config)> no ntp sync-period
```

Arguments

Argument	Value	Description
period	<i>Integer</i>	Time synchronization, in minutes. Can take values in the range from 60 minutes to 1 month.

Example

```
(config)> ntp sync-period 60
Ntp::Client: A synchronization period set to 60 minutes.
```

```
(config)> no ntp sync-period
Ntp::Client: Synchronization period value reset.
```

History

Version	Description
2.00	The ntp sync-period command has been introduced.

3.124 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	<i>String</i>	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.

3.124.1 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	<i>String</i>	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.

3.124.2 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	<i>String</i>	IPv4 or IPv6 address, subnet mask (in prefix length notation, for example, /24), or domain name.

Example

```
(config-ogrp-fqdn)> exclude exemple.com
Network::ObjectGroup: "domain-list0": added excluded FQDN ►
"exemple.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 "::

```

```
(config-ogrp-fqdn)> no exclude exemple.com
Network::ObjectGroup: "domain-list0": removed excluded FQDN ►
"exemple.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 ►
"::

```



```
(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.

3.124.3 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	<i>String</i>	IPv4 or IPv6 address, subnet mask (in prefix length notation, for example, /24), or domain name.

Example

```
(config-ogrp-fqdn)> include exemple.com
Network::ObjectGroup: "domain-list0": added included FQDN ►
"exemple.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 exemple.com
Network::ObjectGroup: "domain-list0": removed included FQDN ►
"exemple.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.

3.125 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	<i>String</i>	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.

3.125.1 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	<i>String</i>	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.

3.125.2 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	<i>IP</i> protocol (include <i>TCP</i> , <i>UDP</i> , <i>ICMP</i> and other).
	tcp	<i>TCP</i> protocol.
	udp	<i>UDP</i> protocol.
	tcpudp	<i>TCP</i> and <i>UDP</i> protocols.
	icmp	<i>ICMP</i> protocol.
	esp	<i>ESP</i> protocol.
	gre	<i>GRE</i> protocol.
	ipip	<i>IP in IP</i> protocol.
address	<i>String</i>	IP address or subnet (in the form of prefix bit length (e.g. 1.2.3.0/24)).
port	<i>Integer</i>	TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated.
end-port	<i>Integer</i>	The end of the range of ports.

Example

```
(config-ogrp-ip)> exclude tcpudp 1.2.3.0/24 70 80  
Network::ObjectGroup: "test": added exclude tcpudp 1.2.3.0/24 ►  
70-80.
```

```
(config-ogrp-ip)> no exclude tcpudp 1.2.3.0/24 70 80  
Network::ObjectGroup: "test": removed exclude tcpudp 1.2.3.0/24 ►  
70-80.
```

History

Version	Description
4.00	The object-group ip exclude command has been introduced.

3.125.3 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	<i>IP</i> protocol (include <i>TCP</i> , <i>UDP</i> , <i>ICMP</i> and other).
	tcp	<i>TCP</i> protocol.
	udp	<i>UDP</i> protocol.
	tcpudp	<i>TCP</i> and <i>UDP</i> protocols.
	icmp	<i>ICMP</i> protocol.
	esp	<i>ESP</i> protocol.
	gre	<i>GRE</i> protocol.
	ipip	<i>IP in IP</i> protocol.
address	<i>String</i>	IP address or subnet (in the form of prefix bit length (e.g. 1.2.3.0/24)).
port	<i>Integer</i>	TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated.
end-port	<i>Integer</i>	The end of the range of ports.

Example

```
(config-ogrp-ip)> include tcpudp 1.2.3.0/24 75 80  
Network::ObjectGroup: "test": added include tcpudp 1.2.3.0/24 ►  
75-80.
```

```
(config-ogrp-ip)> no include tcpudp 1.2.3.0/24 75 80  
Network::ObjectGroup: "test": removed include tcpudp 1.2.3.0/24 ►  
75-80.
```

History

Version	Description
4.00	The object-group ip include command has been introduced.

3.126 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.

3.126.1 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.

3.126.2 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.

3.126.3 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	<i>IP address</i>	Address of primary DNS server.
dns2	<i>IP address</i>	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.

3.126.4 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	<i>Interface</i>	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.

3.126.5 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	<i>Integer</i>	<i>MTU</i> 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.

3.126.6 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.

3.126.7 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	<i>IP address</i>	Start address of pool.
size	<i>Integer</i>	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.

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

Example

```
(oc-server)> route 192.168.2.0/24
Vpn::DhcpInform: "OCSRVPN": added DHCP INFORM route to ►
192.168.2.0/24.
```

```
(oc-server)> no route 192.168.2.0/24
Vpn::DhcpInform: "OCSRVPN": removed DHCP INFORM route to ►
192.168.2.0/24.
```

```
(oc-server)> no route
Vpn::DhcpInform: "OCSRVPN": cleared DHCP INFORM routes.
```

History

Version	Description
4.03	The oc-server route command has been introduced.

3.126.9 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	<i>Integer</i>	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.

3.126.10 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.

3.126.11 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	<i>String</i>	Username.
address	<i>IP address</i>	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.

3.127 ping-check profile

Description

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

Command with **no** prefix removes *Ping Check* profile.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-pchk)

Synopsis

```
(config)> ping-check profile <name>
```

```
(config)> no ping-check profile <name>
```

Arguments

Argument	Value	Description
name	<i>String</i>	<i>Ping Check</i> profile name. You can see the list of available profiles with help of ping-check profile [Tab] command.

Example

```
(config)> ping-check profile [Tab]
```

```
Usage template:
    profile {name}
```

```
Choose:
        TEST
        MYMY
```

```
(config)> ping-check profile new_prof
PingCheck::Client: Profile "new_prof" has been created.
(config-pchk)>
```

```
(config)> no ping-check profile new_prof
PingCheck::Client: Profile "new_prof" has been deleted.
```

History

Version	Description
2.04	The ping-check profile command has been introduced.

3.127.1 ping-check profile host

Description

Assign hostname for testing. By default, hostname is assigned according to country code.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-pchk)> host <host>
```

```
(config-pchk)> no host [ <host> ]
```

Arguments

Argument	Value	Description
host	<i>Hostname</i>	Name or address of remote host.

Example

```
(config-pchk)> host 8.8.8.8
PingCheck::Profile: "test": add host "8.8.8.8" for testing.
```

```
(config-pchk)> host google.com
PingCheck::Profile: "test": add host "google.com" for testing.
```

```
(config-pchk)> no host
PingCheck::Profile: "test": hosts cleared.
```

History

Version	Description
2.04	The ping-check profile host command has been introduced.

3.127.2 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
```

Argument	Value	Description
count	<i>Integer</i>	Amount of failed requests. Can take values in the range from 1 to 10 inclusively.

Example

```
(config-pchk)> max-fails 7
PingCheck::Profile: "test": uses 7 fail count for disabling ►
interface.
```

```
(config-pchk)> no max-fails
PingCheck::Profile: "test": fail count is reset to 5.
```

Version	Description
2.04	The ping-check profile max-fails command has been introduced.

3.127.3 ping-check profile min-success

Description Specify the number of consecutive success requests to a remote host by obtaining of which the Internet at the interface considered present. By default, value 5 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> min-success <count>
```

```
(config-pchk)> no min-success
```

Arguments

Argument	Value	Description
count	<i>Integer</i>	Amount of success requests. Can take values in the range from 1 to 10 inclusively.

Example

```
(config-pchk)> min-success 3
PingCheck::Profile: "test": uses 3 success count for enabling ►
interface.
```

```
(config-pchk)> no min-success
PingCheck::Profile: "test": success count is reset to 5.
```

History

Version	Description
2.04	The ping-check profile min-success command has been introduced.

3.127.4 ping-check profile mode

Description

Set *Ping Check* mode. By default, icmp value is used.

Prefix no

No

Change settings

Yes

Multiple input

No

Synopsis

```
(config-pchk)> mode <mode>
```

Arguments

Argument	Value	Description
mode	icmp	The availability testing of remote host will be done by ICMP-echo request (ping) sending.
	connect	The availability testing of remote host will be done by TCP-connection establishing to specified port.
	tls	The availability testing of remote host will be done by TLS-connection.
	uri	The availability testing of remote host will be done by URI checking.

Example

```
(config-pchk)> mode tls
PingCheck::Profile: "test": uses tls mode.
```


History

Version	Description
2.04	The ping-check profile mode command has been introduced.
3.09	The <code>tls</code> argument was added.
4.00	The <code>uri</code> argument was added.

3.127.5 ping-check profile port

Description

Specify port for connection to the remote host. Setting has a meaning for connect mode of *Ping Check* (see **ping-check profile mode** command).

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-pchk)> port <port>
```

```
(config-pchk)> no port
```

Arguments

Argument	Value	Description
port	<i>Integer</i>	Port number. Can take values in the range from 1 to 65534 inclusively.

Example

```
(config-pchk)> port 80
PingCheck::Profile: "test": uses port 80 for testing.
```

```
(config-pchk)> no port
PingCheck::Profile: "test": port is cleared.
```

History

Version	Description
2.04	The ping-check profile port command has been introduced.

3.127.6 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	<i>Integer</i>	Response time in seconds. Can take values in the range from 1 to 10 inclusively.

Example

```
(config-pchk)> timeout 4
PingCheck::Profile: "test": timeout is changed to 4 seconds.
```

```
(config-pchk)> no timeout
PingCheck::Profile: "test": timeout is reset to 2.
```

History

Version	Description
2.04	The ping-check profile timeout command has been introduced.

3.127.7 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	<i>Integer</i>	Refresh period in seconds. Can take values in the range from 3 to 3600 inclusively.

Example

```
(config-pchk)> update-interval 60
PingCheck::Profile: "test": update interval is changed to 60 ► seconds.
```

History

Version	Description
2.04	The ping-check profile update-interval command has been introduced.

3.127.8 ping-check profile uri

Description Assign URI ([Uniform Resource Identifier](https://en.wikipedia.org/wiki/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	<i>Hostname</i>	Name or address of remote HTTP or HTTPS host.

Example

```
(config-pchk)> uri http://localhost:8888/
PingCheck::Profile: "TEST": add URI "http://localhost:8888/" for ►
testing.
```

```
(config-pchk)> uri https://localhost:4343/
PingCheck::Profile: "TEST": add URI "https://localhost:4343/" ►
for testing.
```

```
(config-pchk)> no uri http://localhost:8888/
PingCheck::Profile: "TEST": URIs cleared.
```

```
(config-pchk)> no uri
PingCheck::Profile: "TEST": URIs cleared.
```

History

Version	Description
4.00	The ping-check profile uri command has been introduced.

3.128 ppe

Description Enable Packet Processing Engine. By default, the setting is turned on for SWNAT and HWNAT both.

Command with **no** prefix disables specified accelerator.

Prefix no Yes

Change settings Yes

²⁰ https://en.wikipedia.org/wiki/Uniform_Resource_Identifier

Multiple input

No

Synopsis

```
(config)> ppe <engine>
```

```
(config)> no ppe [<engine>]
```

Arguments

Argument	Value	Description
engine	software	Software accelerator.
	hardware	Hardware 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.
2.07	Argument hardware-ipv6 was implemented.
4.00	Argument hardware-ipv6 was removed as obsolete.

3.129 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	<i>Interface</i>	The starting interface — full WAN-interface name or an alias.
lan-iface	<i>Interface</i>	The finishing interface — full LAN-interface name or an alias.

Example

```
(config)> pppoe pass through Home ISP
Pppoe::Pass: Configured pass from "Bridge0" to "GigabitEthernet1".
```

```
(config)> no pppoe pass
Pppoe::Pass: Disabled.
```

History

Version	Description
2.00	The pppoe pass command has been introduced.

3.130 schedule

Description

Access to a group of commands to configure the schedule. If the schedule is not found, the command tries to create it.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Group entry

(config-sched)

Synopsis

```
(config)> schedule <name>
```

```
(config)> no schedule <name>
```

Arguments

Argument	Value	Description
name	<i>String</i>	A schedule name.

History

Version	Description
2.06	The schedule command has been introduced.

3.130.1 schedule action

Description

Specify the actions to be performed according to the selected schedule.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-sched)> action <action> <min> <hour> <dow>
```

```
(config-sched)> no action [ <action> <min> <hour> <dow> ]
```

Arguments

Argument	Value	Description
action	start	Action of the beginning.
	stop	Action of the end.
min	<i>Integer</i>	The minutes.
hour	<i>Integer</i>	The hours.
dow	<i>Integer</i>	Days of the week, separated by commas. 0 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.

3.130.2 schedule description

Description

Set description for the selected schedule.

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

Prefix no

Yes

Change settings

No

Multiple input

No

Synopsis

```
(config-sched)> description <description>
```

```
(config-sched)> no description
```

Arguments

Argument	Value	Description
description	<i>String</i>	Text of the description.

Example

```
(config-sched)> description "Schedule for on/off Access Point"  
Core::Schedule::Manager: Updated description of schedule "WIFI".
```

History

Version	Description
2.06	The schedule description command has been introduced.

3.131 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.

3.132 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.

3.133 service dns-proxy

Description Enable DNS-proxy. To configure the parameters of the service, use [Section 3.17 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.

3.134 service http

Description Enable HTTP server that provides the user with Web-interface to configure Racer.

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.

3.135 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.

3.136 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.

3.137 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.

3.138 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.

3.139 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.

3.140 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 .

3.141 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 .

3.142 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.

3.143 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.

3.144 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.

3.145 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.

3.146 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.

3.147 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.

3.148 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.

3.149 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.

3.150 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.

3.150.1 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.

3.150.2 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	<i>String</i>	An access point name. You can see the list of available access points with help of associations [Tab] command.

Example

```
(show)> associations [Tab]
```

```
Usage template:
  associations [{name}]
```

```
Choose:
```

```
WifiMaster0/AccessPoint2
WifiMaster1/AccessPoint1
WifiMaster0/AccessPoint3
WifiMaster0/AccessPoint0
      AccessPoint
WifiMaster1/AccessPoint2
WifiMaster0/AccessPoint1
      GuestWiFi
WifiMaster1/AccessPoint3
WifiMaster1/AccessPoint0
      AccessPoint_5G
```

```
(show)> associations WifiMaster0/AccessPoint0
```

```
station:
  mac: ec:1f:72:d3:6d:3f
  ap: WifiMaster0/AccessPoint0
authenticated: 1
  txrate: 130
  uptime: 3804
  txbytes: 2058837
  rxbytes: 25023483
  ht: 20
  mode: 11n
  gi: 800
  rssi: -26
  mcs: 15
```

```
station:
  mac: 20:aa:4b:5c:09:0e
  ap: WifiMaster0/AccessPoint0
authenticated: 1
  txrate: 270
  uptime: 19662
  txbytes: 19450396
  rxbytes: 70800065
  ht: 40
  mode: 11n
  gi: 800
  rssi: -41
  mcs: 15
```

History

Version	Description
2.00	The show associations command has been introduced.

3.150.3 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>*]

Argument	Value	Description
name	<i>String</i>	The button name.

Example

```
(show)> button FN1

      buttons:
        button, name = FN1:
          is_switch: no
          position: 2
        position_count: 2
          clicks: 0
          elapsed: 0
          hold_delay: 3000
```

Version	Description
2.00	The show button command has been introduced.

3.150.4 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.

3.150.5 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.

3.150.6 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: 35.198.88.176

  radiuslocationid:

    dns:
      dns1: 8.8.8.8
      dns2: 8.8.4.4

  custom: uamsecret

  custom: radiussecret

  custom: radiusnasid

```

History

Version	Description
2.10	The show chilli profiles command has been introduced.

3.150.7 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.

3.150.8 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.

3.150.9 show cloud

Description Show the status and statistics of the Cloud agent service.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> ccloud`

Example

```
(show)> ccloud

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: 31.135.14.238, 178.250.154.58, ►
95.213.212.50, 185.162.93.96, 87.228.71.67, 5.35.2.42
    target_host: 31.135.14.238
    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.

3.150.10 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.

3.150.11 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.

3.150.12 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	<i>String</i>	Package name.

Example

```

(show)> credits

package:
    name: accel-ppp
    title: High performance accel-ppp VPN server
    homepage: https://accel-ppp.org/

package:
    name: accel-ppp-l2tp
    title: L2TP plugin for accel-ppp
    homepage: https://accel-ppp.org/

package:
    name: accel-ppp-pptp

```

```

        title: PPTP plugin for accel-ppp
        homepage: https://accel-ppp.org/

package:
    name: accel-ppp-sstp
    title: SSTP plugin for accel-ppp
    homepage: https://accel-ppp.org/

package:
    name: avahi-daemon
    title: An mDNS/DNS-SD implementation (daemon)
    homepage: http://www.avahi.org/

package:
    name: coova-chilli
    title: Wireless LAN HotSpot controller (Coova ►
Chilli Version)
    homepage: http://www.coova.org/CoovaChilli

package:
    name: crconf
    title: Netlink-based CryptoAPI userspace ►
management utility
    homepage:

package:
    name: dhcpv6
    title: DHCPv6 client + server
    homepage: http://wide-dhcpv6.sourceforge.net/

package:
    name: dropbear
    title: Small SSH2 client/server
    homepage: http://matt.ucc.asn.au/dropbear/

package:
    name: iperf3-ssl
    title: Internet Protocol bandwidth measuring ►
tool with iperf_auth support
    homepage: https://github.com/esnet/iperf

package:
    name: kernel
    title: Linux kernel
    homepage: http://www.kernel.org/

package:
    name: kmod-ipt-account
    title: ACCOUNT netfilter module
    homepage:

package:
    name: kmod-ipt-chaos
    title: CHAOS netfilter module

```

```
homepage:

package:
  name: kmod-ipt-compat-xtables
  title: API compatibilty layer netfilter module
homepage:

package:
  name: kmod-ipt-condition
  title: Condition netfilter module
homepage:

package:
  name: kmod-ipt-delude
  title: DELUDE netfilter module
homepage:

package:
  name: kmod-ipt-dhcpmac
  title: DHCPMAC netfilter module
homepage:

package:
  name: kmod-ipt-dnetmap
  title: DNETMAP netfilter module
homepage:

package:
  name: kmod-ipt-fuzzy
  title: fuzzy netfilter module
homepage:

package:
  name: kmod-ipt-geoip
  title: geoip netfilter module
homepage:

package:
  name: kmod-ipt-iface
  title: iface netfilter module
homepage:

package:
  name: kmod-ipt-ipmark
  title: IPMARK netfilter module
homepage:

package:
  name: kmod-ipt-ipp2p
  title: IPP2P netfilter module
homepage:

package:
  name: kmod-ipt-ipv4options
```

```

        title: ipv4options netfilter module
        homepage:

package:
    name: kmod-ipt-length2
    title: length2 netfilter module
    homepage:

package:
    name: kmod-ipt-logmark
    title: LOGMARK netfilter module
    homepage:

package:
    name: kmod-ipt-lscan
    title: lscan netfilter module
    homepage:

package:
    name: kmod-ipt-netflow
    title: Netflow netfilter module for Linux kernel
    homepage: http://ipt-netflow.sourceforge.net/

package:
    name: kmod-ipt-psd
    title: psd netfilter module
    homepage:

package:
    name: kmod-ipt-quota2
    title: quota2 netfilter module
    homepage:

package:
    name: kmod-ipt-sysrq
    title: SYSRQ netfilter module
    homepage:

package:
    name: kmod-ipt-tarpit
    title: TARPIT netfilter module
    homepage:

package:
    name: kmod-nf-nathelper-rtsp
    title: RTSP Conntrack and NAT helpers
    homepage: https://github.com/maru-sama/rtsp-linux

package:
    name: kmod-wireguard
    title: WireGuard kernel module
    homepage:

package:

```

```

        name: libattr
        title: Extended attributes (xattr) manipulation ►
library
        homepage: http://savannah.nongnu.org/projects/attr

package:
        name: libav
        title: This package contains Libav library
        homepage: https://libav.org/

package:
        name: libavahi
        title: An mDNS/DNS-SD implementation (No D-Bus)
        homepage: http://www.avahi.org/

package:
        name: libcurl
        title: A client-side URL transfer library
        homepage: http://curl.haxx.se/

package:
        name: libdaemon
        title: A lightweight C library that eases the ►
writing of UNIX daemons
        homepage: ►
http://0pointer.de/lennart/projects/libdaemon/

package:
        name: libdb47
        title: Berkeley DB library (4.7)
        homepage: http://www.sleepycat.com/products/db.shtml

package:
        name: libevent
        title: Event notification library
        homepage: http://www.monkey.org/~provos/libevent/

package:
        name: libexif
        title: Library for JPEG files with EXIF tags
        homepage: https://libexif.github.io

package:
        name: libexpat
        title: An XML parsing library
        homepage: https://libexpat.github.io/

package:
        name: libgcrypt
        title: GNU crypto library
        homepage: ►
http://directory.fsf.org/security/libgcrypt.html

package:

```



```

        name: libpgp-error
        title: GnuPG error handling helper library
        homepage: ►
http://www.gnupg.org/related_software/libpgp-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.

3.150.13 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	<i>String</i>	Name of selected <i>IKE</i> key.

Example

```

(show)> crypto ike key

IpSec:
  ike_key, name = test:
    type: address
    id: 10.10.10.10

  ike_key, name = test2:
    type: any
    id: ►

```

History

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

3.150.14 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	<i>String</i>	Name of selected crypto map.

Example

```
(show)> crypto map test

IpSec:
crypto_map, name = test:
  config:
    remote_peer: ipsec.example.com
    crypto_ipsec_profile_name: prof1
    mode: tunnel

    local_network:
      net: 172.16.200.0
      mask: 24
      protocol: IPv4

    remote_network:
      net: 172.16.201.0
      mask: 24
      protocol: IPv4

    status:
      primary_peer: true

    phase1:
      name: test
      unique_id: 572
      ike_state: ESTABLISHED
      establish_time: 1451301596
      rekey_time: 0
      reauth_time: 1451304277
      local_addr: 10.10.10.15
      remote_addr: 10.10.10.20
```

```

ike_version: 2
  local_spi: 00a6ebfc9d90f1c2
  remote_spi: 3cd201ef496df75c
  local_init: yes
  ike_cypher: aes-cbc-256
  ike_hmac: sha1
  ike_dh_group: 2

phase2_sa_list:
  phase2_sa, index = 0:
    unique_id: 304
    request_id: 185
    sa_state: INSTALLED
    mode: TUNNEL
    protocol: ESP
  encapsulation: yes
    local_spi: ca59bfcf
    remote_spi: cde23d83
    ipsec_cypher: esp-aes-256
    ipsec_hmac: esp-sha1-hmac
  ipsec_dh_group:
    in_bytes: 7152
    in_packets: 115
    in_time: 1451302507
    out_bytes: 6008
    out_packets: 98
    out_time: 1451302507
    rekey_time: 1451305159
    local_ts: 172.16.200.0/24
    remote_ts: 172.16.201.0/24

state: PHASE2_ESTABLISHED

```

History

Version	Description
2.06	The show crypto map command has been introduced.

3.150.15 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-4010
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.

3.150.16 show dns-proxy

Description Show a list of current *DNS over TLS* and *DNS over HTTPS* servers.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **dns-proxy**

Example

```
(show)> dns-proxy

proxy-status:
    proxy-name: System

    proxy-config:

rpc_port = 54321
rpc_ttl = 10000
rpc_wait = 10000
timeout = 7000
proceed = 500
stat_file = /var/ndnproxymain.stat
stat_time = 10000
dns_server = 127.0.0.1:40500 .
dns_server = 127.0.0.1:40501 .
dns_server = 127.0.0.1:40508 .
dns_server = 127.0.0.1:40509 .
static_a = my.keenetic.net 78.47.125.180
static_a = cc6b5a71a7644903b51a5454.keenetic.io 78.47.125.180
```

```

static_a = myhome23.keenetic.pro 78.47.125.180
set-profile-ip 127.0.0.1 0
set-profile-ip ::1 0
dns_tcp_port = 53
dns_udp_port = 53

    proxy-stat:

# ndnproxy statistics file

Total incoming requests: 809
Proxy requests sent:      659
Cache hits ratio:        0.192 (155)
Memory usage:            44.41K

DNS Servers

      Ip      Port  R.Sent  A.Rcvd  NX.Rcvd  ►
Med.Resp  Avg.Resp  Rank
      127.0.0.1  40500      2      2      0      ►
40ms      40ms    10
      127.0.0.1  40501     652     651      0      ►
17ms      17ms    10
      127.0.0.1  40508      2      0      0      ►
0ms       0ms     4
      127.0.0.1  40509      3      1      0      ►
326ms     326ms    3

    proxy-safe:

    proxy-tls:
    server-tls:
        address: 1.1.1.1
        port: 853
        sni: cloudflare-dns.com
        spki:
        interface:

    server-tls:
        address: 8.8.8.8
        port: 853
        sni: dns.google.com
        spki:
        interface:

    proxy-tls-filters:

    proxy-https:
    server-https:
        uri: https://dns.adguard.com/dns-query
        format: dnsm
        spki:
        interface:

```



```

server-https:
    uri: ►
https://cloudflare-dns.com/dns-query?ct=application/dns-json
    format: json
    spki:
    interface:

proxy-https-filters:

```

History

Version	Description
3.01	The show dns-proxy command has been introduced.

3.150.17 show dns-proxy filter presets

Description Show the list of filtering presets. There is always at least 1 preset, but can be many more.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **dns-proxy filter presets** [<lang>]

Arguments

Argument	Value	Description
lang	<i>String</i>	Language to show in “description” and “short-description” fields. If requested lang is absent English version will be returned.

Output

Element	Description
description	Long readable profile description. Has translation map.
id	Short name to be used in dns-proxy commands.
short-description	Short description to be used in combo-boxes and titles. Has translation map.
stale	Set to true when preset is obsolete and no longer works.

Example

```

(show)> dns-proxy filter presets en

version: 4

presets:
    id: opendns-family
    url: ►

```

```

https://www.opendns.com/home-internet-security/
    stale: no
    short-description: OpenDNS - FamilyShield
    description: Blocks domains that are categorized as ►
Tasteless, Proxy/Anonymizer, Sexuality and Pornography.

    presets:
        id: quad9-security
        url: https://quad9.net/home/individuals/
        stale: no
        short-description: Quad9 - Security Protection
        description: Blocks malicious hostnames to protect ►
against a wide range of threats such as malware, phishing, ►
spyware, and botnets. Improves performance in addition to ►
guaranteeing
            privacy.

    presets:
        id: cleanbrowsing-security
        url: https://cleanbrowsing.org/filters
        stale: no
        short-description: CleanBrowsing - Security Filter
        description: Blocks access to phishing, spam, malware ►
and malicious domains. Our database of malicious domains is ►
updated hourly and considered to be one of the best in the ►
industry.

        Note that it does not block adult content.

    presets:
        id: cleanbrowsing-adult
        url: https://cleanbrowsing.org/filters
        stale: no
        short-description: CleanBrowsing - Adult Filter
        description: Blocks access to all adult, pornographic ►
and explicit sites. It does not block proxy or VPNs, nor ►
mixed-content sites. Sites like Reddit are allowed. Google and ►
Bing are set
            to the Safe Mode. Malicious and Phishing ►
domains are blocked.

```

History

Version	Description
3.08	The show dns-proxy filter presets command has been introduced.

3.150.18 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.

3.150.19 show dpn document

Description Show *DPN* agreement text.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> dpn document [ <version> ] [ <language> ]`

Arguments

Argument	Value	Description
version	<i>String</i>	Version of <i>DPN</i> . If not specified, the latest version is shown.
language	<i>String</i>	The language of <i>DPN</i> . If not specified, the English version is shown.

Example

```
(show)> dpn document
20200330

DEVICE PRIVACY NOTICE

Last update 2020-30-03

This End User License Agreement (this "Agreement") constitutes ►
a valid and
binding agreement between Keenetic Limited, including all ►
affiliates and
subsidiaries ("Keenetic", "us", "our" or "we") and You (as ►
defined below)
of the Software (as defined below), including the Software ►
installed onto
any one of our Keenetic products (the "Product") and/or the ►
```

```
Software
legally obtained from or provided by an App Platform (as defined ►
below)
authorised by Keenetic. Keenetic and You shall be collectively ►
referred to
as the "Parties", and individually as a "Party".
```

```
(show)> dpn document 20200330 es
20200330
```

```
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.

3.150.20 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.

3.150.21 show dot1x

Description

Show 802.1x client status on the interface. To manage 802.1x client status on the interface authentication must be configured with [interface authentication](#) group of commands.

Prefix no

No

Change settings

No

Interface type

Ethernet

Multiple input

No

Synopsis

```
(show)> dot1x [ interface ]
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	An Ethernet interface name. You can see the list of available Ethernet interfaces with help of dot1x [Tab] command.

Example

```

(show)> dot1x [Tab]

Usage template:
dot1x [{name}]

```

```
Choose:
    GigabitEthernet1
        ISP
WifiMaster0/AccessPoint2
WifiMaster1/AccessPoint1
WifiMaster0/AccessPoint3
WifiMaster0/AccessPoint0
    AccessPoint

(show)> dot1x ISP

dot1x:
    id: GigabitEthernet1
    state: CONNECTING
```

History

Version	Description
2.02	The show dot1x command has been introduced.

3.150.22 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.

3.150.23 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.

3.150.24 show easyconfig status

Description Show EasyConfig status and settings.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **easyconfigstatus**

Example (show)> **easyconfig status**

```
easyconfig:
  checked: Tue Aug  6 11:50:21 2019
  enabled: yes
  reliable: yes
gateway-accessible: yes
  dns-accessible: yes
  host-accessible: yes
  internet: yes

gateway:
  interface: GigabitEthernet1
  address: 193.0.175.2
  failures: 0
  accessible: yes
  excluded: no

hosts:
  host:
    name: google.com
    failures: 0
    resolved: no
    accessible: no
```

History

Version	Description
2.00	The show easyconfig status command has been introduced.

3.150.25 show eula document

Description Show [EULA](#) agreement text.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **eula document** [<version>] [<language>]

Arguments

Argument	Value	Description
version	<i>String</i>	Version of EULA . If not specified, the latest version is shown.

Argument	Value	Description
language	<i>String</i>	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.

3.150.26 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.

3.150.27 show interface

Description Show information of specified interface. If you use no argument, the entire list of all network interfaces will be displayed.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Synopsis `(show)> interface <name>`

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface to display.

Example

Example 3.1. Review the status of switch ports

The command **show interface** displays different information depending on the interface type. In particular, for GigabitEthernet0 switch it shows current state of physical ports, speed and duplex, on top of general information.

```
(config)> show interface GigabitEthernet0
```

```
    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.

3.150.28 show interface bridge

Description Display interface bridge status.

Prefix no No

Change settings No

Multiple input No

Interface type Bridge

Synopsis (show)> **interface** *<name>* **bridge**

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface to display.

Output

Element	Value
members	Root node.
interface	Interface name.
link	Link state of interface.
inherited	Attribute of inheritance.

Example

```
(show)> interface Bridge1 bridge

      members:
        interface, link = no, inherited = yes:
            WifiMaster0/AccessPoint2
        interface, link = yes: UsbLte0
```

History

Version	Description
2.03	The show interface bridge command has been introduced.

3.150.29 show interface channel-utilization rrd

Description Show specific data from the channel utilization monitor.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> interface <name> channel-utilization rrd <attribute> [
<detail>]
```

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the Wi-Fi interface.
attribute	load	Channel load percentage.
	valid	The data is valid.
detail	0	RRD detalization level 64 x 3-seconds. It is used by default if the parameter is not specified.
	1	RRD detalization level 64 x 1-minutes.
	2	RRD detalization level 64 x 3-minutes.
	3	RRD detalization level 64 x 30-minutes.

Example

```
(show)> interface WifiMaster1 channel-utilization rrd load 1
```

```
data:
    t: 578928.500000
    v: 0

data:
    t: 578868.500000
    v: 1

data:
    t: 578808.500000
    v: 1

data:
    t: 578748.500000
    v: 2

data:
    t: 578688.500000
    v: 1

data:
    t: 578628.500000
    v: 0

data:
    t: 578568.500000
    v: 1

data:
    t: 578508.500000
    v: 1

data:
    t: 578448.500000
    v: 1

data:
    t: 578388.500000
    v: 0

data:
    t: 578328.500000
    v: 1

data:
    t: 578268.500000
    v: 1

data:
    t: 578208.500000
    v: 1

data:
    t: 578148.500000
```

```

v: 6

data:
  t: 578088.500000
  v: 1

data:
  t: 578028.500000
  v: 11

```

History

Version	Description
3.09	The show interface channel-utilization rrd command has been introduced.

3.150.30 show interface channels

Description Show information about the specified wireless interface channels.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis

```
(show)> interface <name> channels
```

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface to display.

Output

Element	Value
channels	Root node.
channel, index	Record number in the list.
number	Channel number.
ext-40-above	Ability to expand channel above.
ext-40-below	Ability to expand channel below.
vhc-80	Ability to expand channel up to 80 MHz.

Example

```

(show)> interface WifiMaster0 channels

channels:
  channel, index = 0:
    number: 1

```



```

ext-40-above: yes
ext-40-below: no
    vht-80: yes

channel, index = 1:
    number: 2
ext-40-above: yes
ext-40-below: yes
    vht-80: yes

channel, index = 2:
    number: 3
ext-40-above: yes
ext-40-below: yes
    vht-80: yes

channel, index = 3:
    number: 4
ext-40-above: yes
ext-40-below: yes
    vht-80: yes

channel, index = 4:
    number: 5
ext-40-above: yes
ext-40-below: yes
    vht-80: yes

channel, index = 5:
    number: 6
ext-40-above: yes
ext-40-below: yes
    vht-80: yes

channel, index = 6:
    number: 7
ext-40-above: yes
ext-40-below: yes
    vht-80: yes

channel, index = 7:
    number: 8
ext-40-above: yes
ext-40-below: yes
    vht-80: yes
...
...
...

```

History

Version	Description
2.03	The show interface channels command has been introduced.

3.150.31 show interface chilli

Description Show information about statistics of connected clients to the [RADIUS](#) hotspot.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> interface <name> chilli`

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.

Example

```
(show)> interface Chilli0 chilli

      host:
      session-id: 4bf7c55f00000006
        user: 44w3c1
        ip: 10.1.30.3
        mac: 55:a3:f9:51:b4:11
      start-time: 3884
      end-time: 0
      idle-time: 9
idle-time-limit: 0
      tx-bytes: 695682
      tx-bytes-limit: 0
      rx-bytes: 1627453
      rx-bytes-limit: 0
      tx-speed: 0
      tx-speed-limit: 0
      rx-speed: 0
      rx-speed-limit: 0
```

History

Version	Description
2.10	The show interface chilli command has been introduced.

3.150.32 show interface country-codes

Description Show the list of available country codes on a radio interface.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis

```
(show)> interface <name> country-codes
```

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface to display.

Output

Element	Value
country-codes	Root node.
code	Country code.
country	Country name.

Example

```
(show)> interface WifiMaster0 country-codes
```

```
country-codes:
  country-code:
    code: AL
    country: Albania

  country-code:
    code: DZ
    country: Algeria

  country-code:
    code: AR
    country: Argentina

  country-code:
    code: AM
    country: Armenia

  country-code:
    code: AU
    country: Australia
```

```
...
...
...
```

History

Version	Description
2.03	The show interface country-codes command has been introduced.

3.150.33 show interface esim status

Description

Show the *eSIM* status.

Prefix no

No

Change settings No

Multiple input No

Synopsis `(show)> interface <name> esim status`

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.

Example `(show)> interface UsbLte0 esim status`

```
eid: 8908603020220000000250000000665360
  ds-address: testrootsmds.gsma.com
  profile-version: 2.3.1
  firmware-version: 4.2.0
  free-nv-memory: 296629
  free-memory: 13887
```

Version	Description
5.00	The show interface esim status command has been introduced.

3.150.34 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`

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface to display.

Example `(show)> interface GigabitEthernet0 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.

3.150.35 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	<div>(show)> interface <i><name></i> name-server</div>

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.

Example

```
(show)> interface WifiMaster1/WifiStation0 name-server

server:
  address: 1.1.1.1
  port: 0
  domain:
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 9.9.9.9
  port: 0
  domain:
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 8.8.8.8
  port: 0
  domain:
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 192.168.133.1
  port: 0
  domain:
  global: 65318
  service: WifiMaster1/WifiStation0 DHCP client
  interface: WifiMaster1/WifiStation0

server-tls:
  address: 8.8.8.8
  port: 0
  sni: dns.google
  spki:
  interface:
  domain:
```

History

Version	Description
3.09	The show interface name-server command has been introduced.

3.150.36 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**

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface to display.

Example (show)> **interface WifiMaster0 rf e2p**

```
[0x0000]:5392 [0x0002]:0103 [0x0004]:43EC [0x0006]:04F6
[0x0008]:042B [0x000A]:5392 [0x000C]:1814 [0x000E]:8001
[0x0010]:0000 [0x0012]:5392 [0x0014]:1814 [0x0016]:0000
[0x0018]:0001 [0x001A]:FF6A [0x001C]:0213 [0x001E]:FFFF
[0x0020]:FFFF [0x0022]:FFC1 [0x0024]:9201 [0x0026]:FFFF
[0x0028]:43EC [0x002A]:04F6 [0x002C]:052B [0x002E]:FFFF
[0x0030]:758E [0x0032]:4301 [0x0034]:FF22 [0x0036]:0025
[0x0038]:FFFF [0x003A]:012D [0x003C]:FFFF [0x003E]:FAD9
[0x0040]:88CC [0x0042]:FFFF [0x0044]:FF0A [0x0046]:0000
[0x0048]:0000 [0x004A]:0000 [0x004C]:0000 [0x004E]:FFFF
[0x0050]:FFFF [0x0052]:1111 [0x0054]:1111 [0x0056]:1111
[0x0058]:1011 [0x005A]:1010 [0x005C]:1010 [0x005E]:1010
[0x0060]:1111 [0x0062]:1211 [0x0064]:1212 [0x0066]:1312
[0x0068]:1313 [0x006A]:1413 [0x006C]:1414 [0x006E]:2264
[0x0070]:00F1 [0x0072]:1133 [0x0074]:0000 [0x0076]:FC62
[0x01E8]:FFFF [0x01EA]:FFFF [0x01EC]:FFFF [0x01EE]:FFFF
[0x01F0]:FFFF [0x01F2]:FFFF [0x01F4]:FFFF [0x01F6]:FFFF
[0x01F8]:FFFF [0x01FA]:FFFF [0x01FC]:FFFF [0x01FE]:FFFF
.....
```

Version	Description
2.04	The show interface rf e2p command has been introduced.

3.150.37 show interface rrd

Description	Show network interface loading on the principle of Round Robin Database.
Prefix no	No

Change settings No

Multiple input No

Synopsis `(show)> interface <name> rrd <attribute> [ <detail> ]`

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.
attribute	rxspeed	Value of data rate type.
	txspeed	
detail	0	Level of detail is 1 second.
	1	Level of detail is 2 seconds.
	2	Level of detail is 3 seconds.
	3	Level of detail is 5 seconds.
	4	Level of detail is 15 seconds.
	5	Level of detail is 30 seconds.
	6	Level of detail is 1 minute.
	7	Level of detail is 2 minutes.
	8	Level of detail is 3 minutes.
	9	Level of detail is 5 minutes.
	10	Level of detail is 15 minutes.
	11	Level of detail is 30 minutes.

Example

```
(show)> interface GigabitEthernet1 rrd rxspeed
```

```
data:
  t: 90083.990183
  v: 200880
```

```
data:
  t: 90082.990128
  v: 152392
```

```
data:
  t: 90081.990193
  v: 110976
```

```
data:
  t: 90080.990142
  v: 48000
```

```
data:
  t: 90079.990178
  v: 38366
```



```
(show)> interface GigabitEthernet1 rrd txspeed
```

```
data:
    t: 87771.249486
    v: 148202

data:
    t: 87768.248974
    v: 10694

data:
    t: 87765.248977
    v: 19070

data:
    t: 87762.249105
    v: 48909

data:
    t: 87759.249105
    v: 149277
```

```
(show)> interface GigabitEthernet1 rrd rxspeed 1
```

```
data:
    t: 90176.990054
    v: 164766

data:
    t: 90174.990061
    v: 121828

data:
    t: 90172.990052
    v: 95430

data:
    t: 90170.990085
    v: 57559

data:
    t: 90168.990119
    v: 97759
```

History

Version	Description
2.10	The show interface rrd command has been introduced.

3.150.38 show interface spectrum rrd

Description Show specific data from the spectrum analyzer.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> interface <name> spectrum rrd <channel> <attribute> [ <detail> ]`

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the Wi-Fi interface.
channel	<i>Integer</i>	Wi-Fi channel number.
attribute	load	Channel load percentage.
	dfs	DFS enabled.
	radar	Radar detected.
	valid	The data is valid.
	active	The channel is used by the selected Wi-Fi radio interface.
detail	0	RRD detalization level 64 x 1-minute. This value is used by default if the parameter is not specified explicitly.
	1	RRD detalization level 64 x 3-minutes.
	2	RRD detalization level 64 x 30-minutes.

Example

```
(show)> interface WifiMaster1 spectrum rrd 36 active
data:
    t: 976.500000
    v: 1

data:
    t: 916.500000
    v: 1

data:
    t: 856.500000
    v: 0

data:
    t: 796.500000
    v: 0

data:
    t: 736.500000
    v: 0

data:
    t: 676.500000
    v: 0
```

```

data:
    t: 616.500000
    v: 0

data:
    t: 556.500000
    v: 0

data:
    t: 496.500000
    v: 0

data:
    t: 436.500000
    v: 0

data:
    t: 376.500000
    v: 0

data:
    t: 316.500000
    v: 0

data:
    t: 256.500000
    v: 0

data:
    t: 196.500000
    v: 0

data:
    t: 136.500000
    v: 0

data:
    t: 76.500000
    v: 0

```

History

Version	Description
3.08	The show interface spectrum rrd command has been introduced.

3.150.39 show interface stat

Description Show interface statistics.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> interface <name> stat`

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.

Example

```
(show)> interface WifiMaster0/AccessPoint0 stat

rxpackets: 137033
rxbytes: 23915722
rxerrors: 0
rxdropped: 0
txpackets: 847802
txbytes: 1192583473
txerrors: 0
txdropped: 0
timestamp: 11754.721178
```

History

Version	Description
2.00	The show interface stat command has been introduced.

3.150.40 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	<i>Interface</i>	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.

3.150.41 show interface wps pin

Description Show the access point WPS PIN.

Prefix no No

Change settings No

Multiple input No

Interface type WiFi

Synopsis `(show)> interface <name> wps pin`

Arguments	Argument	Value	Description
	name	<i>Interface</i>	Full name or an alias of the interface.

Output	Element	Value
	pin	Pin number.

Example

```
(show)> interface WifiMaster0/AccessPoint0 wps pin
pin: 60180360
```

History	Version	Description
	2.00	The show interface wps pin command has been introduced.

3.150.42 show interface wps status

Description Show the access point WPS status.

Prefix no No

Change settings No

Multiple input No

Interface type WiFi

Synopsis `(show)> interface <name> wps status`

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.

Output

Element	Value
wps	Root node.
configured	WPS is configured for Access Point.
auto-self-pin	Auto-self-pin mode state.
status	disabled enabled active
direction	send receive
mode	pbk self-pin peer
left	Time to session closure in seconds.

Example

```
(show)> interface WifiMaster0/AccessPoint0 wps status

      wps:
        configured: yes
        auto-self-pin: yes
        status: active
        direction: send
        mode: self-pin
        left: infinite
```

History

Version	Description
2.00	The show interface wps status command has been introduced.

3.150.43 show interface zerotier peers

Description Show a list of nodes.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(show)> interface <name> zerotier peers
```

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.

Example

```
(show)> interface ZeroTier0 zerotier peers
```

```

peer:
  address: 63f865ae71
  latency: 328
    role: PLANET
  version: -1.-1.-1

  path: 50.7.252.138/9993

  path: 50.7.252.138/9993

peer:
  address: 458cde7190
  latency: 201
    role: PLANET
  version: -1.-1.-1

  path: 103.195.103.66/9993

peer:
  address: 126127940c
  latency: 153
    role: LEAF
  version: 1.12.2

  path: 35.209.81.208/53871

  path: 35.209.81.208/53871

  path: 35.209.81.208/53871

peer:
  address: fdfe04eba9
  latency: 129
    role: PLANET
  version: -1.-1.-1

  path: 84.17.53.155/9993

peer:
  address: dfde9efeb9
  latency: 246
    role: PLANET
  version: -1.-1.-1

```

```
path: 104.194.8.134/9993
```

History

Version	Description
4.01	The show interface zerotier peers command has been introduced.

3.150.44 show internet status

Description Check for an Internet connection on the device. The "Internet" LED (the globe) lights up as a result of connecting to popular internet sites.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **internet status**

Example

```
(show)> internet status

        checked: Tue Apr 24 17:14:37 2018
        reliable: yes
gateway-accessible: yes
        dns-accessible: yes
        host-accessible: yes
        internet: yes

gateway:
    interface: GigabitEthernet1
    address: 192.168.1.1
    failures: 0
    accessible: yes
    excluded: no

hosts:
    host:
        name: example.net
        failures: 0
        resolved: yes
        accessible: yes

    host:
        name: google.com
        failures: 0
        resolved: no
        accessible: no
```


History	Version	Description
	2.11	The show internet status command has been introduced.

3.150.45 show ip arp

Description Display the contents of the [ARP](#) cache.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip arp**

Example (show)> **ip arp**

IP	MAC	Interface
192.168.75.209	9c:b7:0d:91:e7:31	Home
82.135.72.150	00:0e:0c:09:db:60	ISP
192.168.75.106	88:53:2e:5e:07:1d	Home
192.168.75.201	7c:61:93:eb:6c:77	Home
192.168.75.203	00:19:d2:48:d6:dc	Home
10.10.30.34	a0:88:b4:40:9c:98	GuestWiFi
192.168.75.203	7c:61:93:ee:88:67	Home
192.168.75.211	00:26:c7:4a:e0:16	Home
82.138.72.163	34:51:c9:c6:53:cf	ISP
192.168.75.200	60:d8:19:cb:1b:36	Home
192.168.75.204	4c:0f:6e:4b:3c:ba	Home
82.138.72.129	00:30:48:89:b5:9f	ISP

History	Version	Description
	2.00	The show ip arp command has been introduced.

3.150.46 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.

3.150.47 show ip dhcp bindings

Description

Show *DHCP server* status. If you use no argument, the entire list of issued IPs for all pools will be displayed.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> ip dhcp bindings [ <pool> ]
```

Arguments

Argument	Value	Description
pool	<i>String</i>	The pool name.

Example

```
(show)> ip dhcp bindings _WEBADMIN
```

```

    lease:
      ip: 192.168.15.211
      mac: 00:26:c7:4a:e0:16
      expires: 289
      hostname: lenovo
    lease:
      ip: 192.168.15.208
      mac: 00:19:d2:48:d6:dc
      expires: 258
      hostname: evo

```

```

...
...

```

History

Version	Description
2.00	The show ip dhcp bindings command has been introduced.

3.150.48 show ip dhcp pool

Description Show information about specified pool. If you use no argument, the information about all system pools will be displayed.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip dhcp pool** [*<pool>*]

Arguments

Argument	Value	Description
pool	<i>String</i>	The pool name.

Example

```
(show)> ip dhcp pool 123

pool, name = 123:
interface, binding = auto:
  network: 0.0.0.0/0
  begin: 0.0.0.0
  end: 0.0.0.0
router, default = yes: 0.0.0.0
lease, default = yes: 25200
state: down
debug: no
```

History

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

3.150.49 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.

3.150.50 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.

Argument	Value	Description
	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.

3.150.51 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	<i>Integer</i>	The number of hosts. If not specified, the entire list of hosts is displayed.

Example

```
(show)> ip hotspot summary rxspeed
```

```

t: 255

host:
  active: yes
  name: toshiba
  rxspeed: 143964

host:
  active: yes
  name: lnx
  rxspeed: 24749

host:
  active: yes
  name: oneplus6
  rxspeed: 2558
```

```
(show)> ip hotspot summary rxspeed detail 0
```

```

t: 0

host:
  active: yes
  name: toshiba
  rxspeed: 186519

host:
  active: yes
  name: oneplus6
  rxspeed: 94298
```



```

host:
  active: yes
  name: lnx
  rxspeed: 8237

(show)> ip hotspot summary rxspeed count 3

      t: 255

host:
  active: yes
  name: toshiba
  rxspeed: 390322

host:
  active: yes
  name: lnx
  rxspeed: 53518

host:
  active: yes
  name: oneplus6
  rxspeed: 5284

```

History

Version	Description
2.14	The show ip hotspot summary command has been introduced.

3.150.52 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.

3.150.53 show ip name-server

Description Show a list of current IPv4 and IPv6 addresses of DNS servers in order of decreasing priority.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip name-server**

Example (show)> **ip name-server**

```
server:
  address: 1.1.1.1
  port: 0
  domain:
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 9.9.9.9
  port: 0
  domain:
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 2001:4860:4860::8888
  port: 0
  domain: ISP
  global: 0
  service: Dns::Manager
  interface:

server:
  address: 193.0.174.21
  port: 0
  domain:
  global: 64520
  service: Dhcp::Client-GigabitEthernet1
  interface: GigabitEthernet1

server:
```

```
address: 2a02:290:0:1::4
port: 0
domain:
global: 64520
service: Ip6::Dhcp::Client-GigabitEthernet1
interface: GigabitEthernet1

server:
address: 10.2.0.1
port: 0
domain:
global: 43
service: Dns::InterfaceSpecific-Wireguard5
interface: Wireguard5
```

History

Version	Description
2.00	The show ip name-server command has been introduced.

3.150.54 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 <i>TCP</i> type will be displayed.

Example

```
(show)> ip nat
=====
Type | In  | Source          Port Destination      Port  Packets
    | Out |                |      |                   |      |
-----
udp   |     | 10.1.30.34      6482 111.221.77.159    40005 1
      |     | 111.221.77.159  40005 82.138.7.164      6482 1
-----
udp   |     | 220.27.130.179  6896 82.138.7.164      28197 1
      |     | 192.168.15.204  28197 220.27.130.179    6896 1
-----
tcp   |     | 10.1.30.33      57474 78.141.179.15     12350 12
      |     | 78.141.179.15   12350 82.138.7.164      57474 11
-----
```

udp	10.1.30.34	6482	84.201.228.162	44423	11
	84.201.228.162	44423	82.138.7.164	6482	16
tcp	10.1.30.34	46655	96.55.147.21	443	2
	96.55.147.21	443	82.138.7.164	46655	0
udp	10.1.30.34	6482	213.199.179.158	40006	1
	213.199.179.158	40006	82.138.7.164	6482	1

History

Version	Description
2.00	The show ip nat command has been introduced.

3.150.55 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	<i>Keyword</i>	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.

3.150.56 show ip policy

Description Show the IP Policy profile status.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip policy** [*<policy>*]

Arguments

Argument	Value	Description
policy	<i>Policy</i>	Name of IP Policy profile.

Example

```

(show)> ip policy
policy, name = Policy0, description = VPN-OpenVPN:
  mark: fffffd00
  table: 42

  route:
    destination: 10.1.30.0/24
    gateway: 0.0.0.0
    interface: Guest
    metric: 0
    proto: boot
    floating: no

  route:
    destination: 172.16.3.33/32
    gateway: 0.0.0.0
    interface: L2TPVPN

```

```
metric: 0
proto: boot
floating: no

route:
destination: 192.168.1.0/24
gateway: 0.0.0.0
interface: Home
metric: 0
proto: boot
floating: no

policy, name = Policy3, description = Home:
mark: fffffd03
table: 45

route:
destination: 10.1.30.0/24
gateway: 0.0.0.0
interface: Guest
metric: 0
proto: boot
floating: no

route:
destination: 172.16.3.33/32
gateway: 0.0.0.0
interface: L2TPVPN
metric: 0
proto: boot
floating: no

route:
destination: 192.168.1.0/24
gateway: 0.0.0.0
interface: Home
metric: 0
proto: boot
floating: no
```

```
(show)> ip policy Policy0
policy, name = Policy0:
mark: fffffd00
table: 42

route:
destination: 0.0.0.0/0
gateway: 193.0.174.1
interface: ISP
metric: 0
proto: boot
floating: no

route:
```

```

destination: 10.1.30.0/24
  gateway: 0.0.0.0
  interface: Guest
    metric: 0
    proto: boot
    floating: no

route:
destination: 185.230.127.84/32
  gateway: 193.0.174.1
  interface: ISP
    metric: 0
    proto: boot
    floating: no

route:
destination: 192.168.1.0/24
  gateway: 0.0.0.0
  interface: Home
    metric: 0
    proto: boot
    floating: no

route:
destination: 193.0.174.0/24
  gateway: 0.0.0.0
  interface: ISP
    metric: 0
    proto: boot
    floating: no

route:
destination: 193.0.175.0/25
  gateway: 193.0.174.10
  interface: ISP
    metric: 0
    proto: boot
    floating: no

route:
destination: 193.0.175.22/32
  gateway: 193.0.174.1
  interface: ISP
    metric: 0
    proto: boot
    floating: no

```

History

Version	Description
2.12	The show ip policy command has been introduced.

3.150.57 show ip route

Description Show the current routing table.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> ip route [table <table> ] [sort <criteria> <direction> ]`

Arguments

Argument	Value	Description
table	<i>Integer</i>	The route number.
criteria	interface	Sorting criteria is the interface name.
	gateway	Sorting criteria is the gateway address.
	destination	Sorting criteria is the destination address.
direction	ascending	Routing table records are sorted in ascending order.
	descending	Routing table records are sorted in descending order.

Example

(show)> ip route table 254			
Destination	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			
13.32.99.0/24	0.0.0.0	Wireguard7	►
U 0			
82.3.116.12/32	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			
108.157.4.0/24	0.0.0.0	Wireguard7	►
U 0			
162.159.192.1/32	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			
172.16.85.0/24	0.0.0.0	Wireguard1	►
U 0			
176.124.212.86/32	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			


```

188.114.96.0/22    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
194.71.130.15/32    192.168.133.1    WifiMaster1/WifiStation0    ►
    U 0

```

```
(show)> ip route sort interface ascending
```

Destination F Metric	Gateway	Interface	
192.168.1.0/24 U 0	192.168.15.88	Home	►
192.168.15.0/24 U 0	0.0.0.0	Home	►
10.1.30.0/24 U 0	0.0.0.0	Guest	►
192.168.17.0/24 U 0	0.0.0.0	Bridge2	►
0.0.0.0/0 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
84.2.111.11/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
162.159.192.1/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
176.124.212.86/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
192.168.133.0/24 U 0	0.0.0.0	WifiMaster1/WifiStation0	►
194.71.130.15/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
1.1.1.1/32 U 0	0.0.0.0	Wireguard1	►
172.16.85.0/24 U 0	0.0.0.0	Wireguard1	►
192.168.220.0/24 U 0	0.0.0.0	Wireguard1	►
10.8.0.0/24 U 0	0.0.0.0	Wireguard3	►
8.8.8.8/32 U 0	0.0.0.0	Wireguard7	►
13.32.99.0/24 U 0	0.0.0.0	Wireguard7	►
108.157.4.0/24 U 0	0.0.0.0	Wireguard7	►

188.114.96.0/22	0.0.0.0	Wireguard7	►
U 0			
(show)> ip route sort interface descending			
Destination	Gateway	Interface	►
F Metric			
188.114.96.0/22	0.0.0.0	Wireguard7	►
U 0			
108.157.4.0/24	0.0.0.0	Wireguard7	►
U 0			
13.32.99.0/24	0.0.0.0	Wireguard7	►
U 0			
8.8.8.8/32	0.0.0.0	Wireguard7	►
U 0			
10.8.0.0/24	0.0.0.0	Wireguard3	►
U 0			
192.168.220.0/24	0.0.0.0	Wireguard1	►
U 0			
172.16.85.0/24	0.0.0.0	Wireguard1	►
U 0			
1.1.1.1/32	0.0.0.0	Wireguard1	►
U 0			
194.71.130.15/32	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			
192.168.133.0/24	0.0.0.0	WifiMaster1/WifiStation0	►
U 0			
176.124.212.86/32	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			
162.159.192.1/32	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			
85.1.112.11/32	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			
0.0.0.0/0	192.168.133.1	WifiMaster1/WifiStation0	►
U 0			
192.168.17.0/24	0.0.0.0	Bridge2	►
U 0			
10.1.30.0/24	0.0.0.0	Guest	►
U 0			
192.168.15.0/24	0.0.0.0	Home	►
U 0			
192.168.1.0/24	192.168.15.88	Home	►
U 0			

History

Version	Description
2.00	The show ip route command has been introduced.

3.150.58 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.

3.150.59 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.

3.150.60 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.

3.150.61 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.

3.150.62 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.

3.150.63 show ipv6 route

Description Show a list of current IPv6-routes.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> ipv6 route [table <table> ] [sort <criteria> <direction> ]`

Arguments

Argument	Value	Description
table	<i>Integer</i>	The route number.
criteria	interface	Sorting criteria is the interface name.
	gateway	Sorting criteria is the gateway address.
	destination	Sorting criteria is the destination address.
direction	ascending	Routing table records are sorted in ascending order.
	descending	Routing table records are sorted in descending order.

Example

```
(show)> ipv6 route table 42
```

```
route6:
destination: 2a02:290:2:65d:52ff:20ff:fe00:1e86/128
gateway: ::
interface: Home
metric: 256
flags: U
rejecting: no
proto: boot
floating: no
static: no
```

```
(show)> ipv6 route sort interface ascending
```

```
route6:
destination: 2a02:290:2:65d:52ff:20ff:fe00:1e86/128
gateway: ::
interface: Home
metric: 256
flags: U
rejecting: no
proto: kernel
floating: no
static: no
```

```
(show)> ipv6 route sort gateway descending
```

```

route6:
  destination: ::/0
  gateway: fe80::66a0:e7ff:fef5:6392
  interface: ISP
  metric: 1024
  flags: U
  rejecting: no
  proto: boot
  floating: no
  static: no

```

History

Version	Description
2.00	The show ipv6 routes command has been introduced.
4.00	New command name is show ipv6 route .

3.150.64 show ipv6 subnets

Description Show a list of current IPv6-subnets.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ipv6 subnets**

Example (show)> **ipv6 subnets**

```

subnet:
  name: Default
  interface: Home

prefixes:
  prefix: 2a0d:8140:2ba1::/64
  interface: TunnelSixInFour0
  valid-lifetime: infinite
  preferred-lifetime: 0
  global: no

```

History

Version	Description
4.01	The show ipv6 subnets command has been introduced.

3.150.65 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.

3.150.66 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	

Argument	Value	Description
	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.

3.150.67 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	

Argument	Value	Description
	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.

3.150.68 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	<pre> (show)> led controls controls: control, index = 0: name: SystemState short_description: System state owner: ndm user_configurable: no control, index = 1: </pre>
---------	---

```

        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.

3.150.69 show log

Description

Show system log contents (records that are present in a circular buffer). The command executes in the background, that is, until forced to stop by the user pressing [Ctrl]+[C].

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> log [ <max-lines> ] [once]
```

Arguments

Argument	Value	Description
max-lines	<i>Integer</i>	Limit for returned log items.
once	<i>Keyword</i>	Show current log and exit to the CLI.

Example

```
(show)> log
```

Time	Message
I [Jul 12 12:08:39]	radvd[228]: attempting to reread config file
I [Jul 12 12:08:39]	radvd[228]: resuming normal operation
I [Jul 12 12:08:40]	wmond: WifiMaster0/AccessPoint0: ► STA(d8:b3:77:36:05:c1) occurred MIC different in key handshaking.


```
I [Jul 12 12:08:40] radvd[228]: attempting to reread config file
I [Jul 12 12:08:40] radvd[228]: resuming normal operation
I [Jul 12 12:08:41] wmond: WifiMaster0/AccessPoint0: ►
STA(d8:b3:77:36:05:c1)
    occurred MIC different in key handshaking.
I [Jul 12 12:08:41] radvd[228]: attempting to reread config file
I [Jul 12 12:08:41] radvd[228]: resuming normal operation
I [Jul 12 12:08:44] wmond: WifiMaster0/AccessPoint0: ►
STA(d8:b3:77:36:05:c1)
    pairwise key handshaking timeout.
I [Jul 12 12:08:44] wmond: WifiMaster0/AccessPoint0: ►
STA(d8:b3:77:36:05:c1) had
    deauthenticated.
```

History

Version	Description
2.00	The show log command has been introduced.

3.150.70 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**

```
(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.

3.150.71 show mws candidate

Description Show the list of candidates or the description of specified candidate by the given identifier.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> mws candidate [ <candidate> ]`

Arguments

Argument	Value	Description
candidate	<i>String</i>	Device ID — MAC address or CID.

Example

```
(show)> mws candidate d11246e8-583d-11ef-911a-1f4569ab1720

candidate:
    mac: 51:ff:21:c4:a1:83
    cid: d11246e8-583d-11ef-911a-1f4569ab1720
    mode: extender
    model: Racer (KN-4010)
    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: Racer (KN-4010)
    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.

3.150.72 show mws log

Description Show log of connections and transitions from one Access Point to another within [MWS](#). The command executes in the background, that is, until forced to stop by the user pressing [Ctrl]+[C].

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> mws log [ <max-lines> ] [once]`

Arguments

Argument	Value	Description
max-lines	<i>Integer</i>	Limit of entries in the response.

Argument	Value	Description
once	<i>Keyword</i>	Show recent entries in the log.

Example

```
(show)> mws log 1
```

Time	Message
[Jan 17 15:04:58]	: 64:a2:f9:51:b1:82: associated -> ▶ 50:ff:20:00:11:82 (5 GHz)

```
(show)> mws log once
```

Time	Message
[Jan 17 14:46:37]	: 64:a2:f9:51:b1:82: associated -> ▶ 50:ff:20:00:11:82 (5 GHz)
[Jan 17 15:04:50]	: 64:a2:f9:51:b1:82: 50:ff:20:00:11:82 (5 ▶ GHz) -> disassociated
[Jan 17 15:04:58]	: 64:a2:f9:51:b1:82: associated -> ▶ 50:ff:20:00:11:82 (5 GHz)

History

Version	Description
2.15	The show mws log command has been introduced.

3.150.73 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	<i>String</i>	Device ID — MAC address or CID.

Example

```
(show)> mws member 1113b72-b339-11ee-911a-85c1127b77c0
```

```
member:
```

```
cid: 1113b72-b339-11ee-911a-85c1127b77c0
model: Racer (KN-4010)
mac: 50:ff:22:b1:1c:b1
```

```
known-host: Keenetic Racer
  ip: 192.168.1.108
  mode: extender
  hw_type: extender
  hw_id: KN-4010
  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.

3.150.74 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	<i>String</i>	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.

3.150.75 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: 193.0.174.200
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.

3.150.76 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.

3.150.77 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.

3.150.78 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.

3.150.79 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.

3.150.80 show ntce attributes

Description Show the list of attributes supported by the [NTCE](#) service.

Prefix no No

Change settings No

Multiple input No

Synopsis `(show)> ntce attributes`

Example

```
(show)> ntce attributes

    attribute:
      id-num: 1
      short: encrypted
      long: Indicates that the current connection is ►
encrypted traffic.

    attribute:
      id-num: 2
      short: audio
      long: Indicates that the current connection is ►
an audio or voice signal.

    attribute:
      id-num: 3
      short: out
      long: Indicates that the current connection is ►
a landline call, e.g. a call to a home phone.

    attribute:
      id-num: 4
      short: video
      long: Indicates that the current connection is ►
a video signal.

    attribute:
      id-num: 5
      short: file-transfer
      long: Indicates that the current connection is ►
a file transfer.

    attribute:
      id-num: 6
      short: web
```

```
        long: Indicates that the current connection is ▶  
a surf the Internet session.  
  
        attribute:  
            id-num: 7  
            short: chat  
            long: Indicates that the current connection is ▶  
a chat session.  
  
        attribute:  
            id-num: 8  
            short: mail  
            long: Indicates that the current connection is ▶  
mail traffic.  
  
        attribute:  
            id-num: 9  
            short: stream  
            long: Indicates that the current connection is ▶  
a continues unidirectional stream of audio and / or video.  
  
        attribute:  
            id-num: 10  
            short: android  
            long: Indicates that the client side uses the ▶  
operating system Android.  
  
        attribute:  
            id-num: 11  
            short: ios  
            long: Indicates that the client side uses the ▶  
operating system iOS.  
  
        attribute:  
            id-num: 12  
            short: windows-mobile  
            long: Indicates that the client side uses the ▶  
operating system Windows Mobile.  
  
        attribute:  
            id-num: 13  
            short: blackberry  
            long: Indicates that the client side uses the ▶  
operating system Blackberry.  
  
        attribute:  
            id-num: 14  
            short: picture  
            long: Indicates that the current connection ▶  
transfers pictures.  
  
        attribute:  
            id-num: 15  
            short: ddl
```

```

        long: Indicates that the current connection is ▶
a Direct Download Host.

        attribute:
            id-num: 16
            short: google
            long: Indicates that the current connection is ▶
a Google service.

        attribute:
            id-num: 17
            short: outlook_web_access
            long: Indicates that the current connection ▶
uses the Microsoft Exchange Outlook Web Access as authentication ▶
mechanism.

        attribute:
            id-num: 18
            short: amazon-cloud
            long: Indicates that the current connection is ▶
a service of Amazon Cloud.

        attribute:
            id-num: 19
            short: apache
            long: Indicates that the server side is an ▶
Apache server.

        attribute:
            id-num: 20
            short: mysql-server
            long: Indicates that the server side is a MySQL ▶
database server.

        attribute:
            id-num: 21
            short: mariadb-server
            long: Indicates that the server side is a ▶
MariaDB database server.

        attribute:
            id-num: 22
            short: ntlm
            long: Current connection uses NTLM as ▶
authentication mechanism.

        attribute:
            id-num: 23
            short: microsoft-windows
            long: Indicates that the client side is the ▶
operating system Microsoft Windows.

        attribute:
            id-num: 24

```

```

        short: chrome
        long: Indicates that the client side is the ►
operating system Chrome.

    attribute:
        id-num: 25
        short: akamai-cloud
        long: Indicates that the current connection is ►
a service of Akamai Cloud.

    attribute:
        id-num: 26
        short: dox
        long: Indicates that the current connection is ►
DoT (DNS over TLS) or DoH (DNS over HTTPS).

    attribute:
        id-num: 27
        short: rcs
        long: Indicates that the current connection is ►
RCS (Rich Communication Services).
```

History

Version	Description
3.07	The show ntce attributes command has been introduced.

3.150.81 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	<i>String</i>	The <i>NTCE</i> 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.

3.150.82 show ntce groups

Description Show the list of groups supported by the [NTCE](#) service.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ntce groups**

Example (show)> **ntce groups**

```

    group:
        id-num: 2048
        long: Generic
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2049
        long: Peer to Peer
    groupset-id: 6
groupset-short-id: filetransferring
groupset-long-id: File transferring

    group:

```

```
        id-num: 2050
        long: Gaming
    groupset-id: 1
groupset-short-id: gaming
groupset-long-id: Gaming

    group:
        id-num: 2051
        long: Tunnel
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
        id-num: 2052
        long: Business
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
        id-num: 2053
        long: E-Commerce
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
        id-num: 2054
        long: Voice over IP
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

    group:
        id-num: 2055
        long: Messaging
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

    group:
        id-num: 2056
        long: Streaming
    groupset-id: 2
groupset-short-id: streaming
groupset-long-id: Video & Audio streaming

    group:
        id-num: 2057
        long: Mobile
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing
```

```

    group:
      id-num: 2058
      long: Remote Control
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
      id-num: 2059
      long: Mail
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
      id-num: 2060
      long: Network Management
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
      id-num: 2061
      long: Database
    groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

    group:
      id-num: 2062
      long: Filetransfer
    groupset-id: 6
groupset-short-id: filetransferring
groupset-long-id: File transferring

    group:
      id-num: 2063
      long: Web
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

    group:
      id-num: 2064
      long: Conference
    groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing

    group:
      id-num: 2065
      long: Social
    groupset-id: 4

```

```
groupset-short-id: surfing
groupset-long-id: Web surfing

    group:
        id-num: 2066
        long: Sharehosting
    groupset-id: 6
groupset-short-id: filetransferring
groupset-long-id: File transferring

    group:
        id-num: 2067
        long: Deprecated
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2068
        long: Industrial
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2069
        long: Encrypted
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2070
        long: Advertisement and Analytic Services
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2071
        long: News
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

    group:
        id-num: 2072
        long: Health and Fitness
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2073
```

```

        long: Cloud and CDN Services
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2074
        long: Navigation
    groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

    group:
        id-num: 2075
        long: Finance
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2076
        long: Travel and Transportation
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2077
        long: Pornography
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2078
        long: Books and Magazines
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

    group:
        id-num: 2079
        long: Audio Entertainment
    groupset-id: 2
groupset-short-id: streaming
groupset-long-id: Video & Audio streaming

    group:
        id-num: 2080
        long: Education
    groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

```

```
group:
  id-num: 2081
  long: M2M and IoT
  groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

group:
  id-num: 2082
  long: Device Security
  groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

group:
  id-num: 2083
  long: Multimedia Service Providers
  groupset-id: 2
groupset-short-id: streaming
groupset-long-id: Video & Audio streaming

group:
  id-num: 2084
  long: Organizers
  groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home

group:
  id-num: 2085
  long: Enterprise Services
  groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

group:
  id-num: 2086
  long: App-Stores and OS Updates
  groupset-id: 6
groupset-short-id: filetransferring
groupset-long-id: File transferring

group:
  id-num: 2087
  long: Browsers
  groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing

group:
  id-num: 2088
  long: Removed
  groupset-id: 5
groupset-short-id: other
```

```

groupset-long-id: Other

group:
  id-num: 2089
  long: Moved
groupset-id: 5
groupset-short-id: other
groupset-long-id: Other

```

History

Version	Description
3.07	The show ntce groups command has been introduced.

3.150.83 show ntce groupsets

- Description** Show the list of groupsets supported by the [NTCE](#) service.
- Prefix no** No
- Change settings** No
- Multiple input** No
- Synopsis** (show)> **ntce groupsets**

Example

```

(show)> ntce groupsets

groupset:
  id-num: 0
  short: calling
  long: Calling and conferencing

groupset:
  id-num: 1
  short: gaming
  long: Gaming

groupset:
  id-num: 2
  short: streaming
  long: Video & Audio streaming

groupset:
  id-num: 3
  short: work
  long: Work & Learn from home

groupset:
  id-num: 4
  short: surfing
  long: Web surfing

```

```

groupset:
  id-num: 5
  short: other
  long: Other

groupset:
  id-num: 6
  short: filetransferring
  long: File transferring

```

History

Version	Description
3.07	The show ntce groupsets command has been introduced.

3.150.84 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: filetransferring
groupset-long-id: File transferring
groupset-service-class: 2
rxbytes: 16736
txbytes: 28451

application:
id-num: 611
short: zendesk
long: ZenDesk
group-id: 2052
group-long: Business
groupset-id: 3
groupset-short-id: work
groupset-long-id: Work & Learn from home
groupset-service-class: 2
rxbytes: 101697
txbytes: 187527

application:
id-num: 621
short: slack
long: Slack
group-id: 2064
group-long: Conference
groupset-id: 0
groupset-short-id: calling
groupset-long-id: Calling and conferencing
groupset-service-class: 2
rxbytes: 30568
txbytes: 3650

application:
id-num: 632
short: google-services
long: Google Shared Services
group-id: 2085
group-long: Enterprise Services
groupset-id: 4
groupset-short-id: surfing
groupset-long-id: Web surfing
```

```

groupset-service-class: 2
    rxbytes: 614512
    txbytes: 202174

application:
    id-num: 664
    short: microsoft-services
    long: Microsoft Services
    group-id: 2085
    group-long: Enterprise Services
    groupset-id: 4
    groupset-short-id: surfing
    groupset-long-id: Web surfing
groupset-service-class: 2
    rxbytes: 20243
    txbytes: 10699

application:
    id-num: 700
    short: fastly
    long: Fastly
    group-id: 2073
    group-long: Cloud and CDN Services
    groupset-id: 5
    groupset-short-id: other
    groupset-long-id: Other
groupset-service-class: 2
    rxbytes: 14859
    txbytes: 3147

application:
    id-num: 703
    short: cloudflare
    long: Cloudflare
    group-id: 2073
    group-long: Cloud and CDN Services
    groupset-id: 5
    groupset-short-id: other
    groupset-long-id: Other
groupset-service-class: 2
    rxbytes: 2172
    txbytes: 3593

application:
    id-num: 719
    short: google-apis
    long: Google APIs
    group-id: 2052
    group-long: Business
    groupset-id: 3
    groupset-short-id: work
    groupset-long-id: Work & Learn from home
groupset-service-class: 2
    rxbytes: 11837

```

```
        txbytes: 7602

    application:
        id-num: 933
        short: bamtech-media
        long: BAMTech Media
        group-id: 2083
        group-long: Multimedia Service Providers
        groupset-id: 2
        groupset-short-id: streaming
        groupset-long-id: Video & Audio streaming
    groupset-service-class: 2
        rxbytes: 4734
        txbytes: 6006

    os-id: 3
    os-long: Windows

    host:
        mac: 04:d4:c4:54:31:12
        via: 04:d4:c4:54:31:12
        ip: 192.168.11.19
        hostname: MyHost
        name: MyHost

    interface:
        id: Bridge0
        name: Home
        description: Home network

        dhcp:
            static: yes

    registered: yes
        access: permit
    schedule:
        active: yes
        rxbytes: 0
        txbytes: 0
        uptime: 9083
    first-seen: 9097
    last-seen: 1
        link: up
    auto-negotiation: yes
        speed: 1000
        duplex: yes
        port: 2

    traffic-shape:
        rx: 0
        tx: 0
        mode: mac
        schedule:
```

History

Version	Description
3.07	The show ntce hosts command has been introduced.

3.150.85 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.

3.150.86 show ntce status

Description Show *NTCE* service info.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ntce status**

Example (show)> **ntce status**

```
    contrack:
        hosts: 2
        applications: 16
    applications-flows: 63
    applications-events: 0
        groups: 12
        groups-flows: 64
        groups-events: 0

        memory:
        applications-flows: 1512
    applications-events: 0
        applications: 512
        groups-flows: 1536
        groups-events: 0
```

```

groups: 384
hosts: 72
total: 4016

event:
  count: 0

memory:
  total: 0

database:
  hosts: 1
applications: 54
  groups: 30
  attributes: 6

memory:
  applications: 2372976
  groups: 1318320
  attributes: 263664
  total: 3954960

```

History

Version	Description
3.07	The show ntce status command has been introduced.

3.150.87 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 ②
    synchronized: yes ③
    ndsstime: no ④
    usertime: no ⑤

```

History

Version	Description
2.00	The show ntp status command has been introduced.

3.150.88 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	<i>String</i>	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.google.com
    type: runtime
    deadline4: 143
    deadline6: 274
    fail-counter4: 0
    fail-counter6: 0
    parent: google.com

    ipv4:
    address: 216.58.210.138
    ttl: 168
    last-updated: 36

    ipv6:
    address: 2a00:1450:4026:802::200a

```



```

        ttl: 300
        last-updated: 36

    entry:
        fqdn: ogs.google.com
        type: runtime
        deadline4: 287
        deadline6: 297
        fail-counter4: 0
        fail-counter6: 0
        parent: google.com

    ipv4:
        address: 216.58.210.142
        ttl: 300
        last-updated: 27

    ipv6:
        address: 2a00:1450:4026:804::200e
        ttl: 300
        last-updated: 27

    entry:
        fqdn: google.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.

3.150.89 show oc-server

Description	Show current connections to the <i>OpenConnect</i> 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.

3.150.90 show ping-check

Description

Show [Ping Check](#) profile status. If you use no arguments, the command displays information about all profiles.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> ping-check [ <profile_name> ]
```

Arguments

Argument	Value	Description
profile_name	<i>String</i>	Profile name.

Example

```
(show)> ping-check
```

```

pingcheck:
  profile: TEST
  host: 8.8.8.8
  port: 80
  max-fails: 7
  timeout: 1
  mode: connect

  interface: ISP
  fail count: 0
  status: pass

pingcheck:
  profile: TEST1
  mode: icmp

pingcheck:
  profile: TEST2
  mode: icmp

```

History

Version	Description
2.04	The show ping-check command has been introduced.

3.150.91 show processes

Description Show statistics of CPU usage by services and processes.

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.

3.150.92 show running-config

Description Show current settings, that is file system: running-config contains, just like command **more** does.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **running-config**

Example

```
(show)> running-config
! $$$ Model: Keenetic Hopper
! $$$ 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 GigabitEthernet0
    up
!
interface GigabitEthernet0/0
    rename 1
    switchport mode access
    switchport mode trunk
    switchport access vlan 1
    switchport trunk vlan 3
    up
!
interface GigabitEthernet0/1
    rename 2
    switchport mode access
    switchport mode trunk
    switchport access vlan 1
    switchport trunk vlan 3
    up
!
interface GigabitEthernet0/2
    rename 3
    switchport mode access
    switchport mode trunk
    switchport access vlan 1
    switchport trunk vlan 3
    up
!
interface GigabitEthernet0/Vlan1
    description "Home VLAN"
    ip dhcp client dns-routes
    up
!
interface GigabitEthernet0/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 BMclwe4ZX9/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 BMc0w7dA7GF04ZX9/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.

3.150.93 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.

3.150.94 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.

3.150.95 show site-survey

Description Show available wireless networks.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis (show)> **site-survey** <name>

Arguments

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

Example

```
(show)> site-survey WifiMaster0
```

SSID		MAC	Ch	Mode ▶
	Q			
Hello_123		11:22:d4:70:97:f1	1	▶
11b/g/n	31			
BRT		78:69:87:b3:9d:68	1	▶
11b/g/n	13			
SVH34-34		23:bf:45:7b:0e:2e	1	▶
11b/g/n	5			
Keenetic-1234		56:f4:ab:56:9a:48	3	▶
11b/g/n	26			

(show)> **site-survey WifiMaster1**

SSID		MAC	Ch	Mode ▶
	Q			
Keenetic-1153 (5)		34:ff:22:3d:69:fc	36	▶
11a/n/ac	2			
RT-5WiFi-87F8		15:a3:b8:e6:57:fa	44	▶
11a/n/ac	42			
GPON5		23:9a:34:b1:b1:26	48	▶
11a/n/ac	0			

History

Version	Description
2.00	The show site-survey command has been introduced.

3.150.96 show snmp view

Description	Show <i>SNMP</i> 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.

3.150.97 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:Nhxcg8KNeE62E8zAZJngImcrJkmA
rsa: SHA256:LM7MyrIaq4qFGT/dyF/t8TbJk5tCzreeGuh03zaydu4
ecdsa: ►
MD5:a6:db:b4:fb:3c:b9:ae:31:ca:6d:ca:ed:62:73:a5:7e
ecdsa: SHA1:ndWg/dx/dP/P8rMkJcVC3XB8nFo
ecdsa: ►
SHA256:Wp1K9d8MsquQBtlBeBlpVlyKdCN1Vay3BtBwbj0xs+o
```

History

Version	Description
2.12	The show ssh fingerprint command has been introduced.

3.150.98 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.

3.150.99 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.

3.150.100 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.

3.150.101 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.

3.150.102 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.

3.150.103 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.

3.150.104 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.

3.150.105 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.

3.150.106 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	<i>IPv6 address</i>	Destination IPv6 address for the pinhole rule.
port	<i>Integer</i>	Destination port number for the pinhole rule.
index	<i>Integer</i>	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.

3.150.107 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	<i>TCP</i> protocol.
	udp	<i>UDP</i> protocol.
interface	<i>Interface</i>	Interface associated with the redirect rule.
port	<i>Integer</i>	Destination port number for the rule.
index	<i>Integer</i>	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.

3.150.108 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: Racer (KN-4010)
hw_version: 12108000
hw_type: router
hw_id: KN-4010
device: Racer
consent: EA
region: EA
description: Keenetic Racer (KN-4010)
```

History

Version	Description
2.00	The show version command has been introduced.

3.150.109 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.

3.150.110 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: ►
6wF0askdljaksld78667hHhspPsoe+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;sdka;l;k129873toKl5Iq4J4fdscwR09JJ023dA2WA=
    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.

3.151 snmp community

Description

Set new name for *SNMP* community. By default, common name `public` is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> snmp community <community>
```

```
(config)> no snmp community
```

Arguments

Argument	Value	Description
community	<i>String</i>	New community name.

Example

```
(config)> snmp community Co_test
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.

3.152 snmp contact

Description

Assign the contact name of *SNMP* agent. By default, the name is not defined.

Command with **no** prefix resets setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> snmp contact <contact>
```

```
(config)> no snmp contact
```

Arguments

Argument	Value	Description
contact	<i>String</i>	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.

3.153 snmp location

Description

Assign the location of [SNMP](#) agent. By default, the location is not defined.
Command with **no** prefix resets setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config)> snmp location <location>
```

```
(config)> no snmp location
```

Arguments

Argument	Value	Description
location	<i>String</i>	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.

3.154 snmp view

Description

Create [SNMP](#) community with restricted access.

Command with **no** prefix removes community.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> snmp view <name>
(config)> no snmp view <name>
```

Arguments

Argument	Value	Description
name	<i>String</i>	Community name in reduced form, not more than 32 characters. The maximum number of communities is 4.

Example

```
(config)> snmp view client
Snmp::Manager: Created view "client".
```

```
(config)> no snmp view client
Snmp::Manager: Removed view "client".
```

History

Version	Description
4.01	The snmp view command has been introduced.

3.155 snmp view exclude

Description Add subtree exclusion from *SNMP* view.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> snmp view exclude <oid>
(config)> no snmp view exclude [ <oid> ]
```

Arguments

Argument	Value	Description
oid	<i>String</i>	Object identifier.

Example

```
(config)> snmp view client exclude mgmt
Snmp::Manager: "client": added excluded OID "mgmt".
```

```
(config)> no snmp view client exclude mgmt
Snmp::Manager: "client": removed excluded OID "mgmt".
```

History

Version	Description
4.01	The snmp view exclude command has been introduced.

3.156 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	<i>String</i>	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.

3.157 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.

3.157.1 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.

3.157.2 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.

3.157.3 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.

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

Example

```
(sstp-server)> dhcp route 192.168.2.0/24  
SstpServer::Manager: Added DHCP INFORM route to ►  
192.168.2.0/255.255.255.0.
```

```
(sstp-server)> no dhcp route  
SstpServer::Manager: Cleared DHCP INFORM routes.
```

History

Version	Description
2.12	The sstp-server dhcp route command has been introduced.

3.157.5 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	<i>IP address</i>	Address of primary DNS server.
dns2	<i>IP address</i>	Address of secondary DNS server.

Example

```
(sntp-server)> dns-servers 1.1.1.1
SntpServer::Manager: Set custom DNS server "1.1.1.1".
```

```
(sntp-server)> dns-servers 1.1.1.1 8.8.8.8
SntpServer::Manager: Set custom DNS servers "1.1.1.1" and ►
"8.8.8.8".
```

```
(sntp-server)> no dns-servers
SntpServer::Manager: Disabled custom DNS servers.
```

History

Version	Description
5.00	The sntp-server dns-servers command has been introduced.

3.157.6 sntp-server interface

Description

Bind [SNTP](#) server to the specified interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(sntp-server)> interface <interface>
```

```
(sntp-server)> no interface
```

Arguments

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

Example

```
(sntp-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.

3.157.7 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.

3.157.8 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	<i>Integer</i>	Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply.
count	<i>Integer</i>	The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated.
adaptive	<i>Keyword</i>	Pppd will send LCP echo-request frames only if no traffic was received from the peer since the last echo-request was sent.

Example

```
(sstp-server)> lcp echo 5 3
SstpServer::Manager: LCP echo parameters updated.
```

History

Version	Description
2.12	The sstp-server lcp echo command has been introduced.

3.157.9 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.

3.157.10 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	<i>Integer</i>	<i>MRU</i> 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.

3.157.11 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	<i>Integer</i>	<i>MTU</i> 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.

3.157.12 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.

3.157.13 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	<i>IP address</i>	Start address of pool.
size	<i>Integer</i>	Pool size.

Example

```
(sstp-server)> pool-range 192.168.1.22 7
SstpServer::Manager: Configured pool range 192.168.1.22 to ►
192.168.1.28.
```

History

Version	Description
2.12	The sstp-server pool-range command has been introduced.

3.157.14 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	<i>Integer</i>	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.

3.157.15 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.

3.157.16 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	<i>String</i>	Username.
address	<i>IP address</i>	IP address to bind.

Example

```
(sstp-server)> static-ip admin 192.168.1.22
SstpServer::Manager: Static IP 192.168.1.22 assigned to user ►
"admin".
```

History

Version	Description
2.12	The sstp-server static-ip command has been introduced.

3.158 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.

3.158.1 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.

Argument	Value	Description
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).

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.

3.158.2 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 (Racer (KN-4010))).
	hwid	The Model identifier (for example, Racer (KN-4010)).

Argument	Value	Description
	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.

3.158.3 system clock date

Description Adjust system date and time.

Prefix no No

Change settings Yes

Multiple input No

Synopsis

```
(system)> clock date <date-and-time>
```

Arguments

Argument	Value	Description
date-and-time	<i>String</i>	Current date and time in DD MM YYYY HH:MM:SS format.

Example

```
(system)> clock date 18 07 2012 09:52:33
System date and time has been changed.
```

History

Version	Description
2.00	The system clock date command has been introduced.

3.158.4 system clock timezone

Description Set the system timezone.

Command with **no** prefix resets timezone to default (GMT).

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(system)> clock timezone <locality>
(system)> no clock timezone <locality>
```

Arguments

Argument	Value	Description
locality	<i>String</i>	Name of the city, indicating the time zone.

Example

```
(system)> clock timezone Dublin
the system timezone is set to "Dublin".
```

History

Version	Description
2.00	The system clock timezone command has been introduced.

3.158.5 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.

3.158.6 system configuration fail-safe commit

Description Commit all unsaved changes and stop the timer.

Prefix no No

Change settings No

Multiple input

No

Synopsis**(system)> configuration fail-safe commit****Example**

```
(system)> configuration fail-safe commit
Core::System::Mtd::ConfigStorage: Committed fail-safe ►
configuration changes.
```

History

Version	Description
3.08	The system configuration fail-safe commit command has been introduced.

3.158.7 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.

3.158.8 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.

3.158.9 system configuration fail-safe timer

Description

Setup or cancel the fail-safe timer. The command configures (or reconfigures) a timer state that is permanent between reboots — it does not require explicit configuration saving. Implemented for the router mode only.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> configuration fail-safe timer <action> <interval>
```

```
(system)> no configuration fail-safe timer
```

Arguments

Argument	Value	Description
action	reboot	Action when the timer expires.
interval	<i>Integer</i>	Timer value in the range from 60 to 86400 seconds.

Example

```
(system)> configuration fail-safe timer reboot 60
Core::System::Mtd::ConfigStorage: Enabled a 60-second fail-safe ►
"reboot" timer.
```

```
(system)> no configuration fail-safe timer
Core::System::Mtd::ConfigStorage: Turned off the fail-safe mode.
```

History

Version	Description
3.08	The system configuration fail-safe timer command has been introduced.

3.158.10 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.

3.158.11 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	<i>String</i>	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.

²¹ https://en.wikipedia.org/wiki/ISO_3166-1_alpha-2

History	Version	Description
	4.00	The system country command has been introduced.

3.158.12 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.

3.158.13 system description

Description Set the system description as an arbitrary string. By default, description Racer (KN-4010) is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(system)>  description <description>
(system)> no description
```

Arguments	Argument	Value	Description
	description	<i>String</i>	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.

3.158.14 system domainname

Description

Assign domain name for the system.

Command with **no** prefix removes domain name.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> domainname <domain>
```

```
(system)> no domainname
```

Arguments

Argument	Value	Description
domain	<i>String</i>	The domain name to assign.

Example

```
(system)> domainname example
Domainname saved.
```

History

Version	Description
2.00	The system domainname command has been introduced.

3.158.15 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
```

Argument	Value	Description
hostname	<i>String</i>	Name of the host.

Example

```
(system)> hostname KN1010
Core::System::Hostname: The host name set.

(system)> no hostname
Core::System::Hostname: The host name reset.
```

Version	Description
2.00	The system hostname command has been introduced.

3.158.16 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
```

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

Example

```
(system)> led power schedule schedule1
Core::Peripheral::Manager: Set LED power schedule "schedule1".

(system)> no led power schedule
Core::Peripheral::Manager: Clear LED power schedule.
```

History

Version	Description
3.06	The system led power schedule command has been introduced.

3.158.17 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 .

3.158.18 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.

3.158.19 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.

3.158.20 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	<i>IP address</i>	Remote log server address.
port	<i>Integer</i>	Remote log server port.

Example

```
(system)> log server 192.168.1.1:8080
Syslog: server 192.168.1.1:8080 added.
```

History

Version	Description
2.00	The system log server command has been introduced.

3.158.21 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	<i>String</i>	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.

3.158.22 system mode

Description Select system operating mode for Racer.

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.

3.158.23 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.

3.158.24 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 .

3.158.25 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	<i>Integer</i>	Timeout for reboot, in seconds. If not specified, the reboot will be executed immediately.
schedule	<i>Schedule</i>	The name of the schedule that was created with schedule group of commands.

Example

```
(system)> reboot 20
Core::System::RebootManager: Rebooting in 20 seconds.
```

```
(system)> no reboot
Core::System::RebootManager: Reboot cancelled.
```

```
(system)> reboot schedule rebootroute
Core::System::RebootManager: Set reboot schedule "rebootroute".
```

```
(system)> no reboot schedule
Core::System::RebootManager: Schedule disabled.
```

History

Version	Description
2.00	The system reboot command has been introduced.
2.12	The schedule argument has been added.

3.158.26 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	<i>String</i>	Identifier of the system parameter.
value	<i>String</i>	New value of the system parameter.

Example

```
(config)> system
(system)> set net.ipv4.ip_forward 1
(system)> set net.ipv4.tcp_fin_timeout 30
(system)> set net.ipv4.tcp_keepalive_time 120
(system)> set ►
net.ipv4.netfilter.ip_conntrack_tcp_timeout_established 1200
(system)> set net.ipv4.netfilter.ip_conntrack_udp_timeout 60
(system)> set net.ipv4.netfilter.ip_conntrack_max 4096
(system)> exit
(config)> show running-config
system
set net.ipv4.ip_forward 1
    set net.ipv4.tcp_fin_timeout 30
    set net.ipv4.tcp_keepalive_time 120
    set net.ipv4.netfilter.ip_conntrack_tcp_timeout_established ►
1200
    set net.ipv4.netfilter.ip_conntrack_udp_timeout 60
    set net.ipv4.netfilter.ip_conntrack_max 4096
!
...
(config)>
```

History

Version	Description
2.00	The system set command has been introduced.

3.158.27 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	<i>String</i>	Threshold value in milliseconds. Can take values in the range from 100 to 1000000000 inclusively. The threshold value is not saved into startup-config.

Example

```
(system)> system trace lock threshold 100
Lockable: Set threshold to 100 ms.
```

```
(system)> no trace lock threshold
Lockable: Reset threshold.
```

History

Version	Description
3.03	The system trace lock threshold command has been introduced.

3.159 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.

3.159.1 tools arping

Description Command action is analogous to **tools ping** command, but operates at the link layer of the OSI model using the **ARP** protocol.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(tools)> arping <address> source-interface <source-interface> [ count
<count> ] [ wait-time <wait-time> ]
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	IP address of the respondent.
source-interface	<i>Interface</i>	Name of source-interface.
count	<i>Integer</i>	Quantity of requests. If not specified, the command will run until interrupted by the user.
wait-time	<i>Integer</i>	The maximum response time, in milliseconds.

Example

```
(tools)> arping 192.168.15.51 source-interface Home count 4 ►
wait-time 3000
Starting the ARP ping to "192.168.15.51"...
ARPING 192.168.15.51 from 192.168.15.1 br0.
Unicast reply from 192.168.15.51 [9c:b7:0d:ce:51:6a] 1.884 ms.
Unicast reply from 192.168.15.51 [9c:b7:0d:ce:51:6a] 1.831 ms.
Sent 4 probes, received 2 responses.
Process terminated.
```

History

Version	Description
2.00	The tools arping command has been introduced.

3.159.2 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	<i>String</i>	The IP address or hostname of the iPerf3 server.
ipv4	<i>String</i>	Use the IPv4 protocol version.
ipv6	<i>String</i>	Use the IPv6 protocol version.

Argument	Value	Description
tcp	<i>Keyword</i>	Use the TCP transport protocol.
udp	<i>Keyword</i>	Use the UDP transport protocol.
reverse	<i>Keyword</i>	The mode, when the server sends data to the client.
port	<i>Integer</i>	The server port to connect (default: 5201).
bitrate	<i>Integer</i>	The bitrate in bits per second (bit/s).
streams	<i>Integer</i>	The number of simultaneous streams to use.
time	<i>Integer</i>	The duration in seconds.
bytes	<i>Integer</i>	The total number of bytes to transmit.
source-interface	<i>Interface</i>	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	<i>IP address</i>	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 speedtest1.serverius.net is sending
[  5] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51220 ►
connected to 2a00:1ca8::21 port 5002
[  7] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51236 ►
connected to 2a00:1ca8::21 port 5002
[  9] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51240 ►
connected to 2a00:1ca8::21 port 5002
[ 11] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51244 ►
connected to 2a00:1ca8::21 port 5002
[ 13] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51248 ►
connected to 2a00:1ca8::21 port 5002
[ 15] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51252 ►
connected to 2a00:1ca8::21 port 5002
[ 17] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51256 ►
connected to 2a00:1ca8::21 port 5002
[ 19] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51272 ►
connected to 2a00:1ca8::21 port 5002
[ 21] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51288 ►
connected to 2a00:1ca8::21 port 5002
[ 23] local 2a02:290:2:612:52ff:20ff:fe00:1e87 port 51298 ►
connected to 2a00:1ca8::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 Mb/s
[ 7]   0.00-1.00    sec   1.00 MBytes  8.38 Mb/s
[ 9]   0.00-1.00    sec   1.00 MBytes  8.38 Mb/s
[11]   0.00-1.00    sec   1.00 MBytes  8.38 Mb/s
[SUM] 0.00-1.00    sec   4.00 MBytes 33.5 Mb/s
- - - - -
[SUM] 0.00-30.00   sec  143 MBytes 40.1 Mb/s   74    ►
    sender
[SUM] 0.00-30.00   sec  142 MBytes 39.8 Mb/s    ►
    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 Mb/s     0   106 ►
KBytes
[ 7]   0.00-1.00    sec   384 KBytes  3.14 Mb/s     0   106 ►
KBytes
[ 9]   0.00-1.00    sec   384 KBytes  3.14 Mb/s     0   106 ►
KBytes
[11]   0.00-1.00    sec   256 KBytes  2.10 Mb/s     0   100 ►
KBytes
[SUM] 0.00-1.00    sec   1.38 MBytes 11.5 Mb/s     0
- - - - -
[ ID] Interval            Transfer      Bitrate      Retr
[ 5]   0.00-1.00    sec   384 KBytes  3.14 Mb/s     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.

3.159.3 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.

Argument	Value	Description
count	<i>Integer</i>	Quantity of ICMP Echo Requests. If not specified, the command will run until interrupted by the user.
packetsize	<i>Integer</i>	Size of the ICMP Echo Request data field in bytes. By default, 56 value is used. Can take values in the range from 28 to 65535 inclusively.
sequence-id	<i>Integer</i>	Sequence number to aid in matching Echo Request and Echo Reply. By default, 0 value is used. Can take values in the range from 0 to 65535 inclusively.
source	source-address	Address of the outgoing interface.
	source-interface	Interface to be used as the source interface in outgoing probe packets.
tos	<i>Integer</i>	Type Of Service. By default, 0 value is used. Can take values in the range from 0 to 63 inclusively.
ttl	<i>Integer</i>	Maximum number of hops (max time-to-live value) traceroute will probe. By default, 30 value is used. Can take values in the range from 1 to 255 inclusively.

Example

```
(tools)> ping 8.8.8.8 count 5 size 100
Sending ICMP ECHO request to 192.168.1.33
PING 192.168.1.33 (192.168.1.33) 72 (100) bytes of data.
100 bytes from 192.168.1.33: icmp_req=1, ttl=128, time=2.35 ms.
100 bytes from 192.168.1.33: icmp_req=2, ttl=128, time=1.07 ms.
100 bytes from 192.168.1.33: icmp_req=3, ttl=128, time=1.06 ms.
--- 192.168.1.33 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss,
0 duplicate(s), time 2002.65 ms.
Round-trip min/avg/max = 1.06/1.49/2.35 ms.
Process terminated.
```

```
(tools)> ping 8.8.8.8 source Wireguard1
sending ICMP ECHO request to 8.8.8.8...
PING 8.8.8.8 (8.8.8.8) 72 (100) bytes of data.
96 bytes from 8.8.8.8: icmp_req=1, ttl=108, time=17.58 ms. ►
(truncated).
96 bytes from 8.8.8.8: icmp_req=2, ttl=108, time=17.62 ms. ►
(truncated).
96 bytes from 8.8.8.8: icmp_req=3, ttl=108, time=17.29 ms. ►
(truncated).
96 bytes from 8.8.8.8: icmp_req=4, ttl=108, time=17.17 ms. ►
(truncated).
96 bytes from 8.8.8.8: icmp_req=5, ttl=108, time=17.41 ms. ►
(truncated).
```

```

--- 8.8.8.8 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss,
0 duplicate(s), time 4019.72 ms.
Round-trip min/avg/max = 17.17/17.41/17.62 ms.

```

History

Version	Description
2.00	The tools ping command has been introduced.
4.01	New values address and interface were added to the source argument.

3.159.4 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 <tll> ]

```

Arguments

Argument	Value	Description
host	<i>String</i>	Domain name or host IPv6-address.
count	<i>Integer</i>	Quantity of ICMPv6 Echo Requests. If not specified, the command will run until interrupted by the user.
packetsize	<i>Integer</i>	Size of the ICMPv6 Echo Request data field in bytes. By default, 56 value is used. Can take values in the range from 28 to 65535 inclusively.
sequence-id	<i>Integer</i>	Sequence number to aid in matching Echo Request and Echo Reply. By default, 0 value is used. Can take values in the range from 0 to 65535 inclusively.
source	source-address	Address of the outgoing interface.

Argument	Value	Description
	source-interface	Interface to be used as the source interface in outgoing probe packets.
tos	<i>Integer</i>	Type Of Service. By default, 0 value is used. Can take values in the range from 0 to 63 inclusively.
ttl	<i>Integer</i>	Maximum number of hops (max time-to-live value) traceroute will probe. By default, 30 value is used. Can take values in the range from 1 to 255 inclusively.

Example

```
(tools)> ping6 2001:4860:4860::8888 count 5 size 111
sending ICMPv6 ECHO request to 2001:4860:4860::8888...
PING 2001:4860:4860::8888 (2001:4860:4860::8888) 63 (111) bytes ►
of data.
71 bytes from 2001:4860:4860::8888: icmp_req=1, ttl=108, ►
time=19.84 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=2, ttl=108, ►
time=19.73 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=3, ttl=108, ►
time=19.96 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=4, ttl=108, ►
time=19.86 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=5, ttl=108, ►
time=19.76 ms.
--- 2001:4860:4860::8888 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss,
0 duplicate(s), time 4021.21 ms.
Round-trip min/avg/max = 19.73/19.83/19.96 ms.
```

```
(tools)> ping6 2001:4860:4860::8888 source ISP
sending ICMPv6 ECHO request to 2001:4860:4860::8888...
PING 2001:4860:4860::8888 (2001:4860:4860::8888) from eth3: 56 ►
(104) bytes of data.
64 bytes from 2001:4860:4860::8888: icmp_req=1, ttl=108, ►
time=19.90 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=2, ttl=108, ►
time=19.75 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=3, ttl=108, ►
time=19.64 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=4, ttl=108, ►
time=19.66 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=5, ttl=108, ►
time=19.88 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=6, ttl=108, ►
time=19.72 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=7, ttl=108, ►
time=19.71 ms.
--- 2001:4860:4860::8888 ping statistics ---
7 packets transmitted, 7 packets received, 0% packet loss,
```

```
0 duplicate(s), time 6221.53 ms.
Round-trip min/avg/max = 19.64/19.75/19.90 ms.
```

History

Version	Description
2.00	The tools ping6 command has been introduced.
4.01	New values address and interface were added to the source argument.

3.159.5 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	<i>String</i>	Name of the target host.
count	<i>Integer</i>	Number of probe packets per hop. Default value — 3. Value must be in the range [1;10].
interval	<i>Integer</i>	Time in seconds between sending packets. Default value — 0. Value must be in the range [0;15].
wait-time	<i>Integer</i>	Time to wait for a response to a probe (in seconds). Default value — 1. Value must be in the range [1;15].
packetsize	<i>Integer</i>	Size of packet according to the protocol type. For tcp type default packet size is 52. Range of values [52]. For udp and icmp types default packet size is 60. Range of values [28;65535].
max-ttl	<i>Integer</i>	Maximum number of hops (max time-to-live value) traceroute will probe. Default value — 30. Value must be in the range [1;255].

Argument	Value	Description
port	<i>Integer</i>	Destination port. For tcp type default port is 80. For udp type default port is 33434. For icmp type default port is 1.
source-address	<i>String</i>	Address of the outgoing interface.
source-interface	<i>String</i>	Interface to be used as the source interface in outgoing probe packets.
type	tcp	TCP protocol.
	udp	UDP protocol. Used by default.
	icmp	ICMP protocol.
tos	<i>Integer</i>	Type Of Service. Default value — 0. Value must be in the range [0;255].

Example

```
(tools)> traceroute google.com count 5 interval 5
starting traceroute to google.com...
traceroute to google.com (64.233.161.113), 30 hops maximum, 60 ►
byte packets.
 1 192.168.233.1 (192.168.233.1) 2.742 ms 2.406 ms 2.460 ms ►
 2.191 ms 2.957 ms
 2 10.77.140.1 (10.77.140.1) 3.301 ms 3.847 ms 3.839 ms
process terminated
```

History

Version	Description
2.00	The tools traceroute command has been introduced.

3.160 udpxy

Description Access to a group of commands to configure [udpxy](#) parameters.

Prefix no No

Change settings No

Multiple input No

Group entry (udpxy)

Synopsis `(config)> udpxy`

History

Version	Description
2.03	The udpxy command has been introduced.

3.160.1 udpxy buffer-size

Description Set *udpxy* buffer size. By default, 2048 value is used.

Command with **no** prefix resets buffer size to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> buffer-size <size>
```

```
(udpxy)> no buffer-size
```

Arguments

Argument	Value	Description
size	<i>Integer</i>	Buffer size in bytes. Can take values in the range from 1 to 1048576.

Example

```
(udpxy)> buffer-size 500
```

Udpxy::Manager: a buffer size set to 500 bytes.

History

Version	Description
2.04	The udpxy buffer-size command has been introduced.

3.160.2 udpxy buffer-timeout

Description Set *udpxy* timeout to hold data in the buffer. By default, 1 value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> buffer-timeout <timeout>
```

```
(udpxy)> no buffer-timeout
```

Arguments

Argument	Value	Description
timeout	<i>Integer</i>	Timeout value in seconds. Can take values in the range from -1 to 60. -1 — unlimited timeout.

Example

```
(udpxy)> buffer-timeout 10
UdpXY::Manager: a hold data timeout set to 10 sec.
```

History

Version	Description
2.04	The udpxy buffer-timeout command has been introduced.

3.160.3 udpxy interface

Description Bind [udpxy](#) to the specified interface. By default, current default gateway is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> interface <interface>
(udpxy)> no interface
```

Arguments

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

Example

```
(udpxy)> interface [Tab]

Usage template:
    interface {interface}

Choose:
    GigabitEthernet1
    ISP
    WifiMaster0/AccessPoint2
    WifiMaster1/AccessPoint1
    WifiMaster0/AccessPoint3
    WifiMaster0/AccessPoint0
    AccessPoint

(udpxy)> interface ISP
UdpXY::Manager: bound to GigabitEthernet1.
```

History

Version	Description
2.02	The udpxy interface command has been introduced.

3.160.4 udpxy port

Description Specify port for HTTP requests. By default, 4022 value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> port <port>
```

```
(udpxy)> no port
```

Arguments

Argument	Value	Description
port	<i>Integer</i>	Port number. Can take values in the range from 0 to 65535.

Example

```
(udpxy)> port 2323
Udpxy::Manager: a port set to 2323.
```

History

Version	Description
2.03	The udpxy port command has been introduced.

3.160.5 udpxy renew-interval

Description Set renew interval of subscription to the multicast channel. By default, 0 value is used, i.e. the subscription is not renewed.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> renew-interval <renew-interval>
```

```
(udpxy)> no renew-interval
```

Arguments

Argument	Value	Description
renew-interval	<i>Integer</i>	Renew interval of subscription in seconds. Can take values in the range from 0 to 3600.

Example

```
(udpxy)> renew-interval 120
Udpxy::Manager: a renew subscription interval value set to 120 ►
sec.
```

History	Version	Description
	2.03	The udpxy renew-interval command has been introduced.

3.160.6 udpxy timeout

Description Set connection timeout. By default, 5 value is used.
Command with **no** prefix resets setting to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(udpxy)> timeout <timeout>
(udpxy)> no timeout
```

Arguments	Argument	Value	Description
	timeout	<i>Integer</i>	Timeout in seconds. Can take values in the range from 5 to 60.

Example

```
(udpxy)> timeout 10
Udpxy::Manager: a stream timeout set to 10 sec.
```

History	Version	Description
	2.03	The udpxy timeout command has been introduced.

3.161 upnp 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.

3.162 user

Description

Access to a group of commands to configure user account parameters. If specified user is not found, the command tries to create it.

Note:

Account with reserved name admin can not be removed. In addition, the admin user can not lose the access right to command line.

Command with **no** prefix removes user account.

Prefix no

Yes

Change settings Yes

Multiple input Yes

Group entry (config-user)

Synopsis

```
(config)> user <name>
(config)> no user <name>
```

Arguments

Argument	Value	Description
name	<i>String</i>	The user name.

History

Version	Description
2.00	The user command has been introduced.

3.162.1 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.

3.162.2 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	<i>String</i>	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.

3.162.3 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	<i>String</i>	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.

3.162.4 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	<i>String</i>	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.

3.162.5 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	<i>String</i>	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.

3.162.6 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.
	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.

3.163 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.

3.163.1 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.

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

Example

```
(vpn-server)> dhcp route 192.168.2.0/24
VpnServer::Manager: Added DHCP INFORM route to ►
192.168.2.0/255.255.255.0.
```

```
(vpn-server)> no dhcp route
VpnServer::Manager: Cleared DHCP INFORM routes.
```

History

Version	Description
2.12	The vpn-server dhcp route command has been introduced.

3.163.3 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	<i>IP address</i>	Address of primary DNS server.
dns2	<i>IP address</i>	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.

3.163.4 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	<i>Interface</i>	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 GigabitEthernet0/Vlan1
VpnServer::Manager: Bound to GigabitEthernet0/Vlan1
```

```
(vpn-server)> no interface
VpnServer::Manager: Reset interface binding.
```

History

Version	Description
2.04	The vpn-server interface command has been introduced.

3.163.5 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.

3.163.6 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	<i>Integer</i>	Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply.
count	<i>Integer</i>	The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated.
adaptive	<i>Keyword</i>	Pppd will send LCP echo-request frames only if no traffic was received from the peer since the last echo-request was sent.

Example

```
(vpn-server)> lcp echo 5 3
LCP echo parameters updated.
```

History

Version	Description
2.06	The vpn-server lcp echo command has been introduced.

3.163.7 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	<i>Integer</i>	The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 2 to 20.
duration	<i>Integer</i>	An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 120.
observation-window	<i>Integer</i>	Duration of suspicious activity observation in minutes. By default, 3 value is used. Can take values in the range from 1 to 20.

Example

```
(vpn-server)> lockout-policy 10 30 2
VpnServer::Manager: Bruteforce detection is reconfigured.
```

```
(vpn-server)> no lockout-policy
VpnServer::Manager: Bruteforce detection is disabled.
```

```
(vpn-server)> lockout-policy 0
VpnServer::Manager: Bruteforce detection reset to default.
```

History

Version	Description
3.01	The vpn-server lockout-policy command has been introduced.

3.163.8 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.

3.163.9 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.

3.163.10 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
```

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

Example

```
(vpn-server)> mru 200
```

VpnServer::Manager: mru set to 200.

Version	Description
2.04	The vpn-server mru command has been introduced.

3.163.11 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
```

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

Example

```
(vpn-server)> mtu 200
```

VpnServer::Manager: mtu set to 200.

Version	Description
2.04	The vpn-server mtu command has been introduced.

3.163.12 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.

3.163.13 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	<i>IP address</i>	Start address of pool.
size	<i>Integer</i>	Pool size. Can take values in the range from 1 to 64 inclusively. If the size is not specified, it is determined automatically depending on the device.

Example

```
(vpn-server)> pool-range 172.168.1.22 20
VpnServer::Manager: Configured pool range 172.168.1.22 to ►
172.168.1.41.
```

```
(vpn-server)> no pool-range
VpnServer::Manager: Reset pool range.
```

History

Version	Description
2.04	The vpn-server pool-range command has been introduced.

3.163.14 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	<i>Integer</i>	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.

3.163.15 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.

3.163.16 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	<i>String</i>	Username.
address	<i>IP address</i>	IP address to bind.

Example

```
(vpn-server)> static-ip test 172.16.1.35  
VpnServer::Manager: Static IP 172.16.1.35 assigned to user "test".
```

```
(vpn-server)> static-ip test  
VpnServer::Manager: Static IP address removed for user "test".
```

History

Version	Description
2.04	The vpn-server static-ip command has been introduced.

3.164 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	<i>Interface</i>	Full interface name or an alias. You can see the list of available interfaces with help of interface [Tab] command.

Example

```
(config)> 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.
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.
Beamforming	is a kind of radio frequency management in which an access point makes use of various antennas to transmit the exact same signal. By broadcasting various signals and examining client feedback, the wireless LAN infrastructure could very well modify the signals it transmits. This way, it can identify the ideal path the signal must follow to get to a client device. Beamforming efficiently enhances the uplink and downlink SNR performances as well as the overall network capacity.
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 CodeI 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	<p>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:</p> <ul style="list-style-type: none">• <i>dynamic allocation</i>: A network administrator assigns a range of IP addresses to DHCP, and each client computer on the LAN is configured to request an IP address from the DHCP server during network initialization. The request-and-grant process uses a lease concept with a controllable time period, allowing the DHCP server to reclaim (and then reallocate) IP addresses that are not renewed.• <i>automatic allocation</i>: 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.• <i>static allocation</i>: 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_\(SLAAC\)](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.
Dynamic Frequency Selection	is a channel allocation scheme specified to identify and avoid interference in AP 5 GHz. The zero wait DFS feature provides seamless change of channels and avoids the one minute outage.
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).

⁵ <https://datatracker.ietf.org/doc/html/rfc4443>

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 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	<p>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.</p> <p>LCP packets are divided into three classes:</p> <ul style="list-style-type: none">• Link configuration packets used to establish and configure a link• Link termination packets used to terminate a link• Link maintenance packets used to manage and debug a link
Link Layer Discovery Protocol	<p>is a vendor-neutral link layer protocol in the Internet Protocol Suite used by network devices for advertising their identity, capabilities, and neighbors on an IEEE 802 local area network, principally wired Ethernet.</p> <p>Information gathered with LLDP is stored in the device as a management information database (MIB) and can be queried with the Simple Network Management Protocol (SNMP).</p>
Low-Density Parity-Check	<p>is a linear error correcting code, a method of transmitting a message over a noisy transmission channel. An LDPC is constructed using a sparse bipartite graph. LDPC codes are capacity-approaching codes, which means that practical constructions exist that allow the noise threshold to be set very close (or even arbitrarily close on the BEC) to the theoretical maximum (the Shannon limit) for a symmetric memoryless channel. The noise threshold defines an upper bound for the channel noise, up to which the probability of lost information can be made as small as desired. Using iterative belief propagation techniques, LDPC codes can be decoded in time linear to their block length.</p>
Maximum Receive Unit	<p>is the maximum size (in bytes) of the frame, which can be received at the data link layer of communication protocol.</p>
Maximum Segment Size	<p>is a parameter of the options field of the TCP header that specifies the largest amount of data, specified in bytes, that a computer or communications device can receive in a single TCP segment. It does not count the TCP header or the IP header.</p>
Maximum Transmission Unit	<p>is the largest size packet or frame, specified in octets (eight-bit bytes), that can be sent in a packet- or frame-based network such as the Internet. The Internet's Transmission Control Protocol (TCP) uses the MTU to determine the maximum size of each packet in any transmission. Most computer operating systems provide a default MTU value that is suitable for most users. In general, Internet users should follow the advice of their Internet service provider (ISP) about whether to change the default value and what to change it to.</p>
Microsoft Point-to-Point Encryption	<p>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</p>

	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	<p>also DPI, Deep Deep Packet Inspection</p> <p>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.</p> <p>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.</p> <p>The Traffic Classification Engine component operates completely independently and does not make any calls to external services.</p>
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.

Orthogonal Frequency-Division Multiple Access	is a new feature of 802.11ax that divides available channel bandwidth into several mutual orthogonal subcarriers or resource units. Access to multiple users is granted in OFDMA by assigning subsets of these subcarriers to individual users. The 802.11ax OFDMA is both uplink and downlink.
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	<p>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.</p> <p>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.</p> <p>Long preamble:</p>

- 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	<p>is an Internet Protocol (IP) used to synchronize the clocks of networks of computers.</p> <p>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.</p> <p>SNTP can operate on IPv4 and IPv6 networks. The standard is described in RFC 4330⁸.</p>
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.
Spatial Reuse	is a The Spatial Reuse (SR) operation included in the IEEE 802.11ax-2020 (11ax) amendment aims at increasing the number of parallel transmissions in an Overlapping Basic Service Set (OBSS).
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.
Target Wake Time	is a feature reduces power consumption and improves spectral efficiency by enabling devices to determine how often to wake in order to send/receive data. This technology enables 802.11ax deployments to consistently deliver higher quality of service to many different devices.
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.

⁸ <https://www.rfc-editor.org/rfc/rfc4330>

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 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.
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).

	<p>WMM also features a Power Save certification that helps small devices on a network conserve battery life. Power Save allows small devices, such as phones and PDAs, to transmit data while in a low-power "dozing" status. The certification gives software developers and hardware manufacturers a way to fine-tune battery use in the ever-increasing number of small devices that have Wi-Fi capabilities.</p>
Wi-Fi Protected Access	<p>Wi-Fi Protected Access II (WPA2), and Wi-Fi Protected Access 3 (WPA3) are three security protocols and security certification programs developed by the Wi-Fi Alliance to secure wireless computer networks. The Alliance defined these in response to serious weaknesses researchers had found in the previous system, WEP. WPA advantages are enhanced data security and tightened access control for wireless networks. Important characteristic is the compatibility between multiple wireless devices at the hardware level as well as at software level.</p> <p>WPA3 uses 128-bit encryption in WPA3-Personal mode (192-bit in WPA3-Enterprise). The WPA3 standard also replaces the Pre-Shared Key exchange with Simultaneous Authentication of Equals as defined in IEEE 802.11-2016 resulting in a more secure initial key exchange in personal mode.</p> <p>WPA Enterprise is a protocol-based authentication mode IEEE 802.1X using an external authentication server RADIUS and local client Supplicant.</p>
Wi-Fi Protected Setup	<p>provides an industry-wide mechanism to set up and configure networks for home and small office (SOHO) environments. Wi-Fi Protected Setup enables typical users who possess little understanding of traditional Wi-Fi configuration and security settings to easily configure new wireless networks, to add new devices and to enable security.</p>
Wired Equivalent Privacy	<p>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.</p>
Wireless Internet Service Provider	<p>is an Internet service provider (ISP) that allows subscribers to connect to a server at designated hotspots (access points) using a wireless connection such as Wi-Fi. This type of ISP offers Broadband service and allows subscriber computers, called stations, to access the Internet and the Web from anywhere within the zone of coverage provided by the server antenna. This is usually a region with a radius of several kilometers.</p> <p>The simplest WISP is a basic service set (BSS) consisting of one server and numerous stations all linked to that server by wireless. More sophisticated WISP networks employ the extended service set (ESS) topology, consisting of two or more BSSs linked together at access points (APs). Both BSS and ESS are supported by the IEEE 802.11b specification.</p>

Extended Authentication	or XAUTH, provides an additional level of authentication by allowing the <i>IPsec</i> gateway to request extended authentication from remote users, thus forcing remote users to respond with their credentials before being allowed access to the VPN.
XFRM	is an IP framework for transforming packets (such as encrypting their payloads) and used to implement the IPsec protocol suite. It is also used for the IP Payload Compression Protocol and features of Mobile IPv6.
ZeroTier	<p>is a distributed network hypervisor built atop a cryptographically secure global peer to peer network. It provides advanced network virtualization and management capabilities on par with an enterprise SDN switch, but across both local and wide area networks and connecting almost any kind of app or device.</p> <p>All traffic is encrypted end to end on OSI layer 1 using 256-bit Salsa20 and authenticated using the Poly1305 message authentication (MAC) algorithm. MAC is computed after encryption (encrypt-then-MAC) and the cipher/MAC composition used is identical to the NaCl reference implementation.</p> <p>The ZeroTier world is controlled by two types of identifier: 40-bit/10-digit ZeroTier addresses and 64-bit/16-digit <i>network IDs</i>. These identifiers are easily distinguished by their length. A <i>ZeroTier address</i> identifies a node or "device" (laptop, phone, server, VM, app, etc.) while a network ID identifies a virtual Ethernet network that can be joined by devices.</p> <p>A ZeroTier address looks like 8056c2e21c and a network ID looks like 8056c2e21c000001. Network IDs are composed of the ZeroTier address of that network's primary controller and an arbitrary 24-bit ID that identifies the network on this controller.</p>

Interface Hierarchy

Figure A.1. Core interfaces

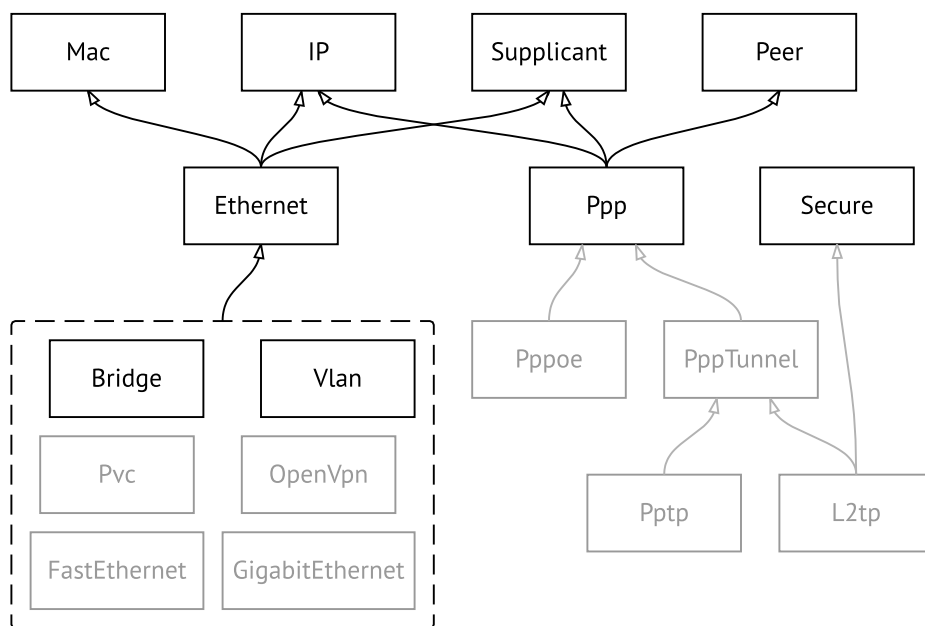


Figure A.2. Tunnel interfaces

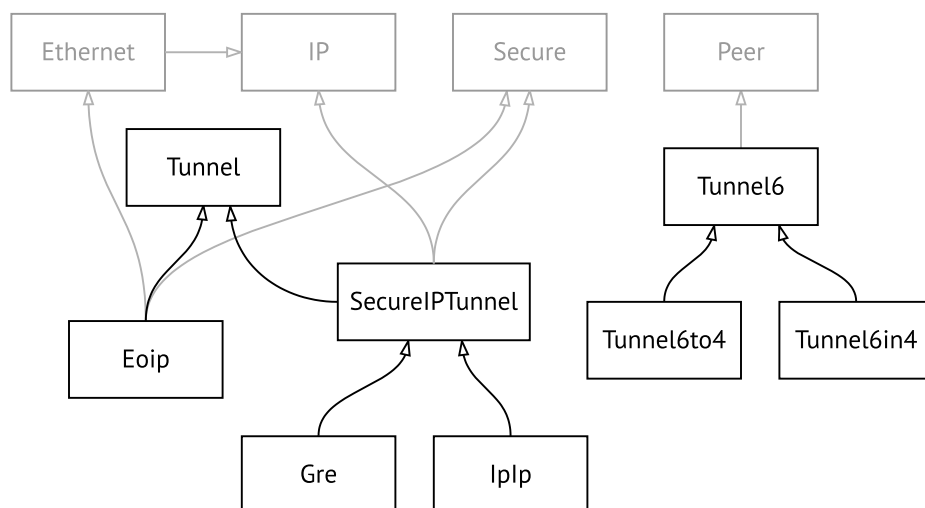
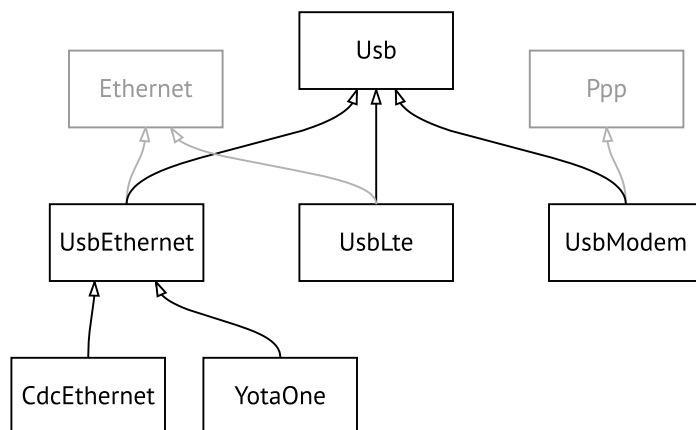
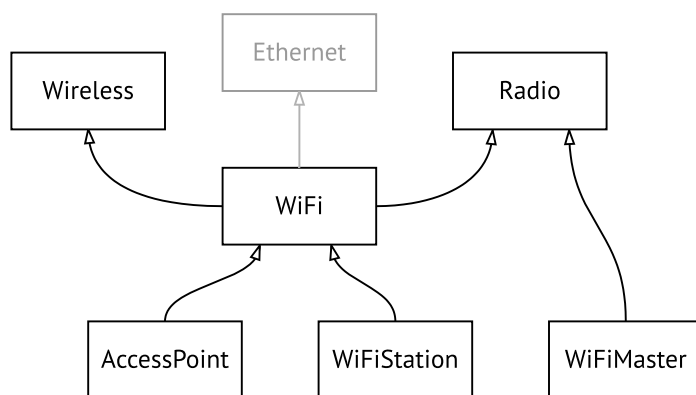


Figure A.3. USB interfaces**Figure A.4. Wi-Fi interfaces**

HTTP API

B.1 REST Core Interface

Racer HTTP API lets you develop a custom application, that will access Racer 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 Racer 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 728](#).

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 728](#)

- 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 729](#) and [Section B.1.3.3 on page 729](#)

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 3.47.6 on page 335](#) to see how “interface” and “access” parameters are mentioned in the Arguments table.

¹In compliance with RFC 7159.


```
POST /rci/ip/hotspot/policy HTTP/1.1
Host: 192.168.1.1
Content-length: 48
Content-type: application/json

{
  "interface": "Home",
  "access": "permit"
}
```

B.1.3.2 Nested resources

Object and array values of a parent object are interpreted as nested resources.

```
{
  "command": {
    "parameter": value
  }
}
```

In particular, empty object denotes a command with no parameters.

```
{
  "command": {}
}
```

Using this rule, you can address multiple resources at a time. RCI engine will process your request from top to bottom, recursing over the JSON structure. Parameters of a parent resource apply to all nested resources within the nearest surrounding scope.

Example B.2. Create and enable a PPP interface

Call “interface” to create a new PPPoE connection, as described in [Section 3.25 on page 140](#), 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": "Racer (KN-4010)",
      "hw_version": "10128000",
      "hw_id": "KN-4010",
      "device": "Racer",
      "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.

Racer 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 Racer 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 Racer.

```

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>GigabitEthernet1</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>
```

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:

Basic

OID: 1.3.6.1.2.1.2

- IF-MIB::ifNumber
- IF-MIB::ifIndex
- IF-MIB::ifDescr
- IF-MIB::ifType
- IF-MIB::ifMtu
- IF-MIB::ifSpeed
- IF-MIB::ifPhysAddress
- IF-MIB::ifAdminStatus

- IF-MIB::ifOperStatus
- IF-MIB::ifLastChange
- IF-MIB::ifInOctets
- IF-MIB::ifInUcastPkts
- IF-MIB::ifInDiscards
- IF-MIB::ifInErrors
- IF-MIB::ifOutOctets
- IF-MIB::ifOutUcastPkts
- IF-MIB::ifOutDiscards
- IF-MIB::ifOutErrors

Advanced

OID 1.3.6.1.2.1.31

- IF-MIB::ifName
- IF-MIB::ifInMulticastPkts
- IF-MIB::ifInBroadcastPkts
- IF-MIB::ifOutMulticastPkts
- IF-MIB::ifOutBroadcastPkts
- IF-MIB::ifHCInOctets
- IF-MIB::ifHCInUcastPkts
- IF-MIB::ifHCInMulticastPkts
- IF-MIB::ifHCInBroadcastPkts
- IF-MIB::ifHCOctets
- IF-MIB::ifHCOUcastPkts
- IF-MIB::ifHCOMulticastPkts
- IF-MIB::ifHCOBroadcastPkts
- IF-MIB::ifLinkUpDownTrapEnable
- IF-MIB::ifHighSpeed
- IF-MIB::ifPromiscuousMode
- IF-MIB::ifConnectorPresent
- IF-MIB::ifAlias

- IF-MIB::ifCounterDiscontinuityTime

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::udpHCOudDatagrams

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 | <ul style="list-style-type: none">• UCD-SNMP-MIB::memTotalReal• UCD-SNMP-MIB::memAvailReal• UCD-SNMP-MIB::memShared• UCD-SNMP-MIB::memBuffer• UCD-SNMP-MIB::memCached |
| USB-storage info | <ul style="list-style-type: none">• 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 | <ul style="list-style-type: none">• 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)

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
IPsec SA	3DES-CBC/SHA1/MODP2048	dh-group 26
	3DES-CBC/SHA1/MODP1536	
	3DES-CBC/SHA1/MODP1024	
	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 AES-256-CBC/SHA256/MODP1024 AES-128-CBC/SHA256/MODP1024 3DES-CBC/SHA256/MODP1024	dh-group 26
IKEv2	AES-256-CBC/SHA256/MODP1024 AES-128-CBC/SHA256/MODP1024 3DES-CBC/SHA256/MODP1024 AES-256-CBC/SHA1/MODP1024 AES-256-CBC/SHA1/ECP384 AES-256-CBC/SHA1/MODP2048 AES-128-CBC/SHA1/MODP1024 AES-128-CBC/SHA1/ECP256 AES-256-CBC/SHA256/MODP2048 3DES-CBC/SHA1/MODP2048 3DES-CBC/SHA1/MODP1536 3DES-CBC/SHA1/MODP1024	encryption aes-256-cbc encryption aes-128-cbc encryption 3des integrity sha256 integrity sha1 dh-group 2 dh-group 20 dh-group 14 dh-group 5 dh-group 26
IPsec SA	3DES-CBC/SHA1/MODP1024 3DES-CBC/SHA1 AES-256-CBC/SHA1 AES-128-CBC/SHA1 AES-256-CBC/SHA1/MODP1536 AES-128-CBC/SHA1/MODP1536 3DES-CBC/SHA1/MODP1536 AES-256-CBC/SHA1/MODP1024 AES-128-CBC/SHA1/MODP1024	cypher esp-3des cypher esp-aes-256 cypher esp-aes-128 hmac esp-sha1-hmac hmac esp-sha256-hmac dh-group 2 dh-group 14

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
IPsec SA	AES-128-CBC/SHA1/MODP1536	dh-group 26
	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	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
		dh-group 26
IPsec SA	AES-256-CBC/SHA1/MODP1536	cypher esp-aes-256
	AES-256-CBC/SHA1/MODP2048	cypher esp-aes-128
	AES-128-CBC/SHA1/MODP2048	hmac esp-sha1-hmac
	AES-128-CBC/SHA1/MODP1536	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	aead
	CHACHA20POLY1305	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

