

KEENETIC

SPRINTER

AX1800 Mesh Wi-Fi 6 Gigabit Router/Extender
with a 4-Port Gigabit Smart Switch

Command Reference Guide

Model	Sprinter (KN-3710)
OS Version	4.3
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Preface

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

2 Organization

This manual covers the following topics:

Introduction to the CLI	Describes how to use the Sprinter 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 Sprinter 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 27

Introduction to the CLI 29

Command Reference 35

Glossary 647

Interface Hierarchy 661

HTTP API 663

SNMP MIB 671

IPsec Encryption Levels 677

Table of Contents

Preface	3
1 Readership	3
2 Organization	3
3 Document Conventions	3
Table of Contents	5
Chapter 1	
Product Overview	27
1.1 Hardware Configuration	27
Chapter 2	
Introduction to the CLI	29
2.1 Enter commands in the CLI	29
2.1.1 Entering a group	30
2.2 Getting Help and auto-completion	30
2.3 Prefix no	31
2.4 Multiple input	32
2.5 Saving to startup settings	32
2.6 Delayed restart	33
Chapter 3	
Command Reference	35
3.1 Core commands	35
3.1.1 copy	35
3.1.2 erase	35
3.1.3 exit	36
3.1.4 grep	36
3.1.5 ls	39
3.1.6 mkdir	40
3.1.7 more	41
3.2 access-list	41
3.2.1 access-list auto-delete	42
3.2.2 access-list deny	42
3.2.3 access-list permit	45
3.2.4 access-list rule	47
3.3 cloud control2 security-level	48
3.4 components	49
3.4.1 components auto-update channel	49

3.4.2	components auto-update disable	50
3.4.3	components auto-update schedule	50
3.4.4	components check-update	51
3.4.5	components commit	52
3.4.6	components install	52
3.4.7	components list	53
3.4.8	components preset	54
3.4.9	components preview	54
3.4.10	components remove	55
3.4.11	components validity-period	55
3.5	crypto engine	56
3.6	crypto ike key	57
3.7	crypto ike mtu	58
3.8	crypto ike nat-keepalive	58
3.9	crypto ike policy	59
3.9.1	crypto ike policy lifetime	60
3.9.2	crypto ike policy mode	60
3.9.3	crypto ike policy negotiation-mode	61
3.9.4	crypto ike policy proposal	62
3.10	crypto ike proposal	63
3.10.1	crypto ike proposal aead	63
3.10.2	crypto ike proposal dh-group	64
3.10.3	crypto ike proposal encryption	65
3.10.4	crypto ike proposal integrity	66
3.10.5	crypto ike proposal prf	66
3.11	crypto ipsec incompatible	67
3.12	crypto ipsec profile	68
3.12.1	crypto ipsec profile authentication-local	69
3.12.2	crypto ipsec profile authentication-remote	69
3.12.3	crypto ipsec profile dpd-clear	70
3.12.4	crypto ipsec profile dpd-interval	71
3.12.5	crypto ipsec profile identity-local	71
3.12.6	crypto ipsec profile match-identity-remote	72
3.12.7	crypto ipsec profile mode	73
3.12.8	crypto ipsec profile policy	74
3.12.9	crypto ipsec profile preshared-key	74
3.12.10	crypto ipsec profile xauth	75
3.12.11	crypto ipsec profile xauth-identity	76
3.12.12	crypto ipsec profile xauth-password	76
3.13	crypto ipsec rekey delete-delay	77
3.14	crypto ipsec rekey make-before	78
3.15	crypto ipsec transform-set	78
3.15.1	crypto ipsec transform-set aead	79

3.15.2	crypto ipsec transform-set cypher	80
3.15.3	crypto ipsec transform-set dh-group	80
3.15.4	crypto ipsec transform-set hmac	81
3.15.5	crypto ipsec transform-set lifetime	82
3.16	crypto map	83
3.16.1	crypto map connect	83
3.16.2	crypto map enable	84
3.16.3	crypto map fallback-check-interval	85
3.16.4	crypto map force-encaps	85
3.16.5	crypto map l2tp-server dhcp route	86
3.16.6	crypto map l2tp-server enable	87
3.16.7	crypto map l2tp-server interface	87
3.16.8	crypto map l2tp-server ipv6cp	88
3.16.9	crypto map l2tp-server lcp echo	89
3.16.10	crypto map l2tp-server mru	90
3.16.11	crypto map l2tp-server mtu	90
3.16.12	crypto map l2tp-server multi-login	91
3.16.13	crypto map l2tp-server nat	92
3.16.14	crypto map l2tp-server range	92
3.16.15	crypto map l2tp-server session-logout	93
3.16.16	crypto map l2tp-server session-preempt	93
3.16.17	crypto map l2tp-server static-ip	94
3.16.18	crypto map nail-up	95
3.16.19	crypto map reauth-passive	95
3.16.20	crypto map set-peer	96
3.16.21	crypto map set-peer-fallback	97
3.16.22	crypto map set-profile	97
3.16.23	crypto map set-tcpmss	98
3.16.24	crypto map set-transform	99
3.16.25	crypto map traffic-selectors	100
3.16.26	crypto map tunnel-interface	100
3.16.27	crypto map virtual-ip dhcp route	101
3.16.28	crypto map virtual-ip dns-server	102
3.16.29	crypto map virtual-ip enable	103
3.16.30	crypto map virtual-ip interface	103
3.16.31	crypto map virtual-ip multi-login	104
3.16.32	crypto map virtual-ip nat	104
3.16.33	crypto map virtual-ip range	105
3.16.34	crypto map virtual-ip session-logout	106
3.16.35	crypto map virtual-ip session-preempt	106
3.16.36	crypto map virtual-ip static-ip	107
3.17	dns-proxy	107
3.17.1	dns-proxy filter assign host preset	108

3.17.2	dns-proxy filter assign host profile	109
3.17.3	dns-proxy filter assign interface preset	110
3.17.4	dns-proxy filter assign interface profile	110
3.17.5	dns-proxy filter engine	111
3.17.6	dns-proxy filter profile	112
3.17.7	dns-proxy filter profile description	113
3.17.8	dns-proxy filter profile dns53 upstream	113
3.17.9	dns-proxy filter profile https upstream	114
3.17.10	dns-proxy filter profile intercept enable	115
3.17.11	dns-proxy filter profile tls upstream	116
3.17.12	dns-proxy https upstream	117
3.17.13	dns-proxy intercept enable	118
3.17.14	dns-proxy max-ttl	119
3.17.15	dns-proxy proceed	119
3.17.16	dns-proxy rebind-protect	120
3.17.17	dns-proxy srr-reset	121
3.17.18	dns-proxy tls upstream	121
3.18	dpn accept	122
3.19	dyndns profile	123
3.19.1	dyndns profile domain	123
3.19.2	dyndns profile password	124
3.19.3	dyndns profile send-address	125
3.19.4	dyndns profile type	125
3.19.5	dyndns profile update-interval	126
3.19.6	dyndns profile url	127
3.19.7	dyndns profile username	128
3.20	easyconfig check	128
3.20.1	easyconfig check exclude-gateway	129
3.20.2	easyconfig check max-fails	129
3.20.3	easyconfig check period	130
3.21	easyconfig disable	131
3.22	eula accept	131
3.23	igmp-proxy	132
3.23.1	igmp-proxy fast-leave	132
3.23.2	igmp-proxy force	133
3.24	igmp-snooping disable	133
3.25	interface	134
3.25.1	interface authentication chap	135
3.25.2	interface authentication eap-md5	136
3.25.3	interface authentication eap-mschapv2	136
3.25.4	interface authentication eap-ttls	137
3.25.5	interface authentication identity	138
3.25.6	interface authentication mschap	138

3.25.7	interface authentication mschap-v2	139
3.25.8	interface authentication pap	140
3.25.9	interface authentication password	140
3.25.10	interface authentication peap	141
3.25.11	interface authentication shared	142
3.25.12	interface authentication wpa-psk	142
3.25.13	interface auto-ssid	143
3.25.14	interface backhaul	144
3.25.15	interface band-steering	144
3.25.16	interface band-steering preference	145
3.25.17	interface beamforming explicit	146
3.25.18	interface beamforming implicit	147
3.25.19	interface ccp	147
3.25.20	interface channel	148
3.25.21	interface channel auto-rescan	149
3.25.22	interface channel width	149
3.25.23	interface chilli coaport	150
3.25.24	interface chilli dhcpif	151
3.25.25	interface chilli dns	151
3.25.26	interface chilli lease	152
3.25.27	interface chilli login	153
3.25.28	interface chilli logout	153
3.25.29	interface chilli macauth	154
3.25.30	interface chilli macpasswd	155
3.25.31	interface chilli nasip	155
3.25.32	interface chilli nasmac	156
3.25.33	interface chilli profile	157
3.25.34	interface chilli radius	158
3.25.35	interface chilli radiusacctport	158
3.25.36	interface chilli radiusauthport	159
3.25.37	interface chilli radiuslocationid	160
3.25.38	interface chilli radiuslocationname	160
3.25.39	interface chilli radiusnasid	161
3.25.40	interface chilli radiussecret	162
3.25.41	interface chilli uamallowed	162
3.25.42	interface chilli uamdomain	163
3.25.43	interface chilli uamhomepage	164
3.25.44	interface chilli uamport	165
3.25.45	interface chilli uamsecret	165
3.25.46	interface chilli uamserver	166
3.25.47	interface compatibility	167
3.25.48	interface connect	167
3.25.49	interface country-code	168

3.25.50	interface debug	169
3.25.51	interface description	169
3.25.52	interface down	170
3.25.53	interface downlink-mumimo	170
3.25.54	interface downlink-ofdma	171
3.25.55	interface duplex	172
3.25.56	interface dyndns nobind	172
3.25.57	interface dyndns profile	173
3.25.58	interface dyndns update	174
3.25.59	interface encryption anonymous-dh	174
3.25.60	interface encryption enable	175
3.25.61	interface encryption key	175
3.25.62	interface encryption mppe	176
3.25.63	interface encryption owe	177
3.25.64	interface encryption tkip hold-down	177
3.25.65	interface encryption wpa	178
3.25.66	interface encryption wpa2	179
3.25.67	interface encryption wpa3	179
3.25.68	interface encryption wpa3 suite-b	180
3.25.69	interface flowcontrol	180
3.25.70	interface follow	181
3.25.71	interface ft enable	182
3.25.72	interface ft mdid	183
3.25.73	interface ft otd	183
3.25.74	interface green-ethernet	184
3.25.75	interface hide-ssid	185
3.25.76	interface iapp auto	185
3.25.77	interface iapp key	186
3.25.78	interface idle-timeout	186
3.25.79	interface igmp downstream	187
3.25.80	interface igmp fork	188
3.25.81	interface igmp upstream	188
3.25.82	interface include	189
3.25.83	interface inherit	189
3.25.84	interface ip access-group	190
3.25.85	interface ip address	191
3.25.86	interface ip address dhcp	192
3.25.87	interface ip adjust-ttl rcv	193
3.25.88	interface ip adjust-ttl send	193
3.25.89	interface ip alias	194
3.25.90	interface ip dhcp client broadcast	195
3.25.91	interface ip dhcp client class-id	196
3.25.92	interface ip dhcp client debug	196

3.25.93	interface ip dhcp client displace	197
3.25.94	interface ip dhcp client dns-routes	198
3.25.95	interface ip dhcp client fallback	199
3.25.96	interface ip dhcp client hostname	199
3.25.97	interface ip dhcp client name-servers	200
3.25.98	interface ip dhcp client release	201
3.25.99	interface ip dhcp client renew	201
3.25.100	interface ip dhcp client routes	202
3.25.101	interface ip flow	202
3.25.102	interface ip global	203
3.25.103	interface ip mru	204
3.25.104	interface ip mtu	205
3.25.105	interface ip name-servers	206
3.25.106	interface ip nat loopback	206
3.25.107	interface ip remote	207
3.25.108	interface ip tcp adjust-mss	207
3.25.109	interface ipcp address	208
3.25.110	interface ipcp default-route	209
3.25.111	interface ipcp dns-routes	209
3.25.112	interface ipcp name-servers	210
3.25.113	interface ipcp vj	211
3.25.114	interface ipsec aggressive	211
3.25.115	interface ipsec encryption-level	212
3.25.116	interface ipsec force-encaps	213
3.25.117	interface ipsec ignore	214
3.25.118	interface ipsec ikev2	214
3.25.119	interface ipsec nail-up	215
3.25.120	interface ipsec name-servers	215
3.25.121	interface ipsec preshared-key	216
3.25.122	interface ipsec proposal lifetime	217
3.25.123	interface ipsec proposal local-id	218
3.25.124	interface ipsec proposal remote-id	218
3.25.125	interface ipsec transform-set lifetime	219
3.25.126	interface ipv6 address	220
3.25.127	interface ipv6 dhcp client pd hint	221
3.25.128	interface ipv6 id	221
3.25.129	interface ipv6 name-servers	222
3.25.130	interface ipv6 prefix	223
3.25.131	interface ipv6cp	223
3.25.132	interface lcp acfc	224
3.25.133	interface lcp echo	225
3.25.134	interface lcp pfc	225
3.25.135	interface ldpc	226

3.25.136	interface led wan	227
3.25.137	interface lldp disable	227
3.25.138	interface mac access-list address	228
3.25.139	interface mac access-list type	229
3.25.140	interface mac address	229
3.25.141	interface mac address factory	230
3.25.142	interface mac band	231
3.25.143	interface mac bssid	232
3.25.144	interface mac clone	232
3.25.145	interface openconnect accept-addresses	233
3.25.146	interface openconnect accept-routes	233
3.25.147	interface openconnect authgroup	234
3.25.148	interface openconnect dtls	234
3.25.149	interface openconnect protocol fortinet	235
3.25.150	interface openvpn accept-routes	236
3.25.151	interface openvpn connect	236
3.25.152	interface openvpn name-servers	237
3.25.153	interface peer	238
3.25.154	interface peer-isolation	238
3.25.155	interface ping-check profile	239
3.25.156	interface ping-check restart	240
3.25.157	interface pmf	240
3.25.158	interface pmksa-lifetime	241
3.25.159	interface power	242
3.25.160	interface pppoe service	243
3.25.161	interface pppoe session auto-cleanup	243
3.25.162	interface preamble-short	244
3.25.163	interface proxy connect	244
3.25.164	interface proxy protocol	245
3.25.165	interface proxy socks5-udp	246
3.25.166	interface proxy upstream	246
3.25.167	interface reconnect-delay	247
3.25.168	interface rekey-interval	248
3.25.169	interface rename	249
3.25.170	interface rf e2p set	249
3.25.171	interface role	250
3.25.172	interface rrm	251
3.25.173	interface rssi-threshold	251
3.25.174	interface schedule	252
3.25.175	interface security-level	253
3.25.176	interface spatial-reuse	254
3.25.177	interface speed	255
3.25.178	interface speed nonegotiate	256

3.25.179	interface ssid	256
3.25.180	interface standby enable	257
3.25.181	interface storm-control disable	258
3.25.182	interface switchport access	258
3.25.183	interface switchport friend	259
3.25.184	interface switchport mode	260
3.25.185	interface switchport trunk	261
3.25.186	interface target-waketime	261
3.25.187	interface traffic-shape	262
3.25.188	interface tunnel destination	263
3.25.189	interface tunnel eoip id	264
3.25.190	interface tunnel gre keepalive	264
3.25.191	interface tunnel source	265
3.25.192	interface tx-burst	266
3.25.193	interface tx-queue length	266
3.25.194	interface tx-queue scheduler cake	267
3.25.195	interface tx-queue scheduler fq_codel	268
3.25.196	interface up	268
3.25.197	interface uplink-mumimo	269
3.25.198	interface uplink-ofdma	269
3.25.199	interface vlan qos egress map	270
3.25.200	interface whnat	271
3.25.201	interface wireguard asc	271
3.25.202	interface wireguard listen-port	272
3.25.203	interface wireguard peer	273
3.25.204	interface wireguard private-key	279
3.25.205	interface wmm	279
3.25.206	interface wpa-eap radius secret	280
3.25.207	interface wpa-eap radius server	281
3.25.208	interface wps	281
3.25.209	interface wps auto-self-pin	282
3.25.210	interface wps button	282
3.25.211	interface wps peer	283
3.25.212	interface wps self-pin	284
3.25.213	interface zerotier accept-addresses	284
3.25.214	interface zerotier accept-routes	285
3.25.215	interface zerotier connect	285
3.25.216	interface zerotier network-id	286
3.26	ip arp	287
3.27	ip dhcp class	287
3.27.1	ip dhcp class option	288
3.28	ip dhcp host	289
3.29	ip dhcp pool	289

3.29.1	ip dhcp pool bind	290
3.29.2	ip dhcp pool bootfile	291
3.29.3	ip dhcp pool class	292
3.29.4	ip dhcp pool debug	293
3.29.5	ip dhcp pool default-router	293
3.29.6	ip dhcp pool dns-server	294
3.29.7	ip dhcp pool domain	295
3.29.8	ip dhcp pool enable	295
3.29.9	ip dhcp pool lease	296
3.29.10	ip dhcp pool next-server	296
3.29.11	ip dhcp pool option	297
3.29.12	ip dhcp pool range	298
3.29.13	ip dhcp pool update-dns	299
3.29.14	ip dhcp pool wpad	299
3.30	ip dhcp relay enable	300
3.31	ip dhcp relay lan	301
3.32	ip dhcp relay server	301
3.33	ip dhcp relay upstream interface	302
3.34	ip dhcp relay upstream server	303
3.35	ip dhcp relay wan	303
3.36	ip esp alg enable	304
3.37	ip flow-cache timeout active	304
3.38	ip flow-cache timeout inactive	305
3.39	ip flow-export destination	307
3.40	ip flow-export version	307
3.41	ip host	307
3.42	ip hotspot	308
3.42.1	ip hotspot auto-register disable	308
3.42.2	ip hotspot auto-scan interface	309
3.42.3	ip hotspot auto-scan interval	310
3.42.4	ip hotspot auto-scan passive	310
3.42.5	ip hotspot auto-scan timeout	311
3.42.6	ip hotspot default-policy	312
3.42.7	ip hotspot host	313
3.42.8	ip hotspot host conform	314
3.42.9	ip hotspot host priority	314
3.42.10	ip hotspot policy	315
3.42.11	ip hotspot priority	316
3.42.12	ip hotspot wake	317
3.43	ip http lockout-policy	318
3.44	ip http log access	319
3.45	ip http log auth	319
3.46	ip http log webdav	320

3.47	ip http port	320
3.48	ip http proxy	321
3.48.1	ip http proxy auth	322
3.48.2	ip http proxy dns-override	322
3.48.3	ip http proxy domain	323
3.48.4	ip http proxy domain ndns	324
3.48.5	ip http proxy force-host	324
3.48.6	ip http proxy preserve-host	325
3.48.7	ip http proxy preserve-origin	325
3.48.8	ip http proxy preserve-referer	326
3.48.9	ip http proxy security-level	327
3.48.10	ip http proxy ssl redirect	327
3.48.11	ip http proxy timeout	328
3.48.12	ip http proxy upstream	329
3.48.13	ip http proxy x-real-ip	330
3.49	ip http security-level	330
3.50	ip http ssl acme debug	408
3.51	ip http ssl acme ecdsa	332
3.52	ip http ssl acme get	332
3.53	ip http ssl acme revoke	333
3.54	ip http ssl acme list	333
3.55	ip http ssl enable	334
3.56	ip http ssl port	334
3.57	ip http ssl redirect	335
3.58	ip http x-frame-options	336
3.59	ip name-server	336
3.60	ip nat	338
3.61	ip nat full-cone	338
3.62	ip nat oc	339
3.63	ip nat restricted-cone	340
3.64	ip nat sstp	340
3.65	ip nat vpn	341
3.66	ip policy	342
3.66.1	ip policy description	342
3.66.2	ip policy ipv6 route	343
3.66.3	ip policy multipath	344
3.66.4	ip policy permit	345
3.66.5	ip policy permit auto	345
3.66.6	ip policy rate-limit input	346
3.66.7	ip policy rate-limit output	347
3.66.8	ip policy route	348
3.66.9	ip policy standalone	349
3.67	ip route	350

3.68	ip search-domain	351
3.69	ip sip alg direct-media	352
3.70	ip sip alg port	353
3.71	ip ssh	353
3.71.1	ip ssh cipher	354
3.71.2	ip ssh keygen	355
3.71.3	ip ssh lockout-policy	356
3.71.4	ip ssh port	357
3.71.5	ip ssh security-level	357
3.71.6	ip ssh session timeout	358
3.72	ip static	359
3.73	ip static rule	361
3.74	ip telnet	362
3.74.1	ip telnet lockout-policy	362
3.74.2	ip telnet port	363
3.74.3	ip telnet security-level	364
3.74.4	ip telnet session max-count	364
3.74.5	ip telnet session timeout	365
3.75	ip traffic-shape host	366
3.76	ip traffic-shape unknown-host	367
3.77	ipv6 local-prefix	368
3.78	ipv6 name-server	369
3.79	ipv6 pass	370
3.80	ipv6 route	371
3.81	ipv6 static	372
3.82	ipv6 subnet	373
3.82.1	ipv6 subnet bind	373
3.82.2	ipv6 subnet dns-server	374
3.82.3	ipv6 subnet mode	375
3.82.4	ipv6 subnet number	375
3.82.5	ipv6 subnet prefix delegate	377
3.82.6	ipv6 subnet prefix length	377
3.83	isolate-private	377
3.84	kabinet	378
3.84.1	kabinet access-level	378
3.84.2	kabinet interface	379
3.84.3	kabinet password	380
3.84.4	kabinet port	381
3.84.5	kabinet protocol-version	381
3.84.6	kabinet server	382
3.85	known host	383
3.86	mws acquire	383
3.87	mws auto-ap-shutdown	384

3.88	mws backhaul shutdown	385
3.89	mws log stp	385
3.90	mws member	386
3.91	mws member debug	387
3.92	mws member dpn-accept	387
3.93	mws member port access	388
3.94	mws member port disable	389
3.95	mws member reboot	389
3.96	mws member update channel	390
3.97	mws member update check	391
3.98	mws member update start	391
3.99	mws member update stop	392
3.100	mws reboot	392
3.101	mws revisit	393
3.102	mws stp priority	393
3.103	mws update start	394
3.104	mws update stop	395
3.105	mws zone	395
3.106	nextdns	396
3.106.1	nextdns assign	397
3.106.2	nextdns authenticate	398
3.106.3	nextdns authtoken	398
3.106.4	nextdns check-availability	399
3.107	ndns	399
3.107.1	ndns book-name	400
3.107.2	ndns check-name	402
3.107.3	ndns drop-name	403
3.107.4	ndns get-booked	404
3.107.5	ndns get-update	405
3.108	ntce	407
3.108.1	ntce debug	408
3.108.2	ntce filter assign host	408
3.108.3	ntce filter assign interface	409
3.108.4	ntce filter profile	410
3.108.5	ntce filter profile application	411
3.108.6	ntce filter profile description	411
3.108.7	ntce filter profile group	412
3.108.8	ntce filter profile schedule	413
3.108.9	ntce filter profile type	413
3.108.10	ntce memory-watcher	414
3.108.11	ntce qos category priority	414
3.108.12	ntce qos enable	415
3.108.13	ntce upstream rate-limit input	416

3.108.14	ntce upstream rate-limit output	417
3.109	ntp	417
3.110	ntp master	418
3.111	ntp server	418
3.112	ntp source	419
3.113	ntp sync-period	420
3.114	object-group fqdn	420
3.114.1	object-group fqdn exclude	421
3.114.2	object-group fqdn include	422
3.115	object-group ip	422
3.115.1	object-group ip exclude	423
3.115.2	object-group ip include	424
3.116	oc-server	425
3.116.1	oc-server camouflage	426
3.116.2	oc-server debug	426
3.116.3	oc-server interface	427
3.116.4	oc-server mtu	427
3.116.5	oc-server multi-login	428
3.116.6	oc-server pool-range	428
3.116.7	oc-server route	429
3.116.8	oc-server session-logout	430
3.116.9	oc-server session-preempt	431
3.116.10	oc-server static-ip	431
3.117	ping-check profile	432
3.117.1	ping-check profile host	433
3.117.2	ping-check profile max-fails	433
3.117.3	ping-check profile min-success	434
3.117.4	ping-check profile mode	435
3.117.5	ping-check profile port	435
3.117.6	ping-check profile timeout	436
3.117.7	ping-check profile update-interval	437
3.117.8	ping-check profile uri	437
3.118	ppe	438
3.119	pppoe pass	439
3.120	schedule	440
3.120.1	schedule action	440
3.120.2	schedule description	441
3.120.3	schedule led	441
3.121	service dhcp	442
3.122	service dhcp-relay	443
3.123	service dns-proxy	443
3.124	service http	444
3.125	service igmp-proxy	444

3.126	service internet-checker	445
3.127	service ipsec	445
3.128	service kabinet	446
3.129	service mws	446
3.130	service ntce	447
3.131	service ntp	447
3.132	service oc-server	448
3.133	service snmp	448
3.134	service ssh	449
3.135	service sstp-server	449
3.136	service telnet	450
3.137	service udpxy	450
3.138	service upnp	451
3.139	service vpn-server	451
3.140	show	452
3.140.1	show acme	452
3.140.2	show associations	453
3.140.3	show button	454
3.140.4	show button bindings	455
3.140.5	show button handlers	457
3.140.6	show chilli profiles	459
3.140.7	show clock date	460
3.140.8	show clock timezone-list	460
3.140.9	show components status	461
3.140.10	show configurator status	462
3.140.11	show credits	463
3.140.12	show crypto ike key	471
3.140.13	show crypto map	471
3.140.14	show defaults	473
3.140.15	show dns-proxy	474
3.140.16	show dns-proxy filter presets	476
3.140.17	show dns-proxy filter profiles	477
3.140.18	show dpn document	478
3.140.19	show dpn list	479
3.140.20	show dot1x	481
3.140.21	show drivers	482
3.140.22	show dyndns updaters	483
3.140.23	show easyconfig status	483
3.140.24	show eula document	484
3.140.25	show eula list	485
3.140.26	show interface	486
3.140.27	show interface bridge	488
3.140.28	show interface channel-utilization rrd	489

3.140.29	show interface channels	491
3.140.30	show interface chilli	493
3.140.31	show interface country-codes	493
3.140.32	show interface mac	494
3.140.33	show interface name-server	496
3.140.34	show interface rf e2p	497
3.140.35	show interface rrd	498
3.140.36	show interface spectrum rrd	500
3.140.37	show interface stat	502
3.140.38	show interface wps pin	502
3.140.39	show interface wps status	503
3.140.40	show interface zerotier peers	504
3.140.41	show internet status	506
3.140.42	show ip arp	506
3.140.43	show ip dhcp bindings	507
3.140.44	show ip dhcp pool	508
3.140.45	show ip hotspot	509
3.140.46	show ip hotspot rrd	510
3.140.47	show ip hotspot summary	513
3.140.48	show ip http proxy	514
3.140.49	show ip name-server	515
3.140.50	show ip nat	516
3.140.51	show ip neighbour	517
3.140.52	show ip policy	518
3.140.53	show ip route	521
3.140.54	show ip service	524
3.140.55	show ipsec	525
3.140.56	show ipv6 addresses	526
3.140.57	show ipv6 dhcp bindings	526
3.140.58	show ipv6 prefixes	527
3.140.59	show ipv6 route	528
3.140.60	show ipv6 subnets	529
3.140.61	show kabinet status	530
3.140.62	show last-change	530
3.140.63	show led	531
3.140.64	show led bindings	532
3.140.65	show led controls	535
3.140.66	show log	538
3.140.67	show mws associations	539
3.140.68	show mws candidate	539
3.140.69	show mws log	541
3.140.70	show mws member	542
3.140.71	show ndns	543

3.140.72	show netfilter	544
3.140.73	show nextdns availability	544
3.140.74	show nextdns profiles	545
3.140.75	show ntce applications	545
3.140.76	show ntce attributes	548
3.140.77	show ntce filter profile	551
3.140.78	show ntce groups	552
3.140.79	show ntce groupsets	558
3.140.80	show ntce hosts	559
3.140.81	show ntce oses	564
3.140.82	show ntce status	565
3.140.83	show ntp status	566
3.140.84	show oc-server	567
3.140.85	show ping-check	568
3.140.86	show processes	568
3.140.87	show running-config	570
3.140.88	show schedule	577
3.140.89	show self-test	577
3.140.90	show site-survey	578
3.140.91	show snmp view	579
3.140.92	show ssh fingerprint	579
3.140.93	show sstp-server	580
3.140.94	show system	581
3.140.95	show system country	581
3.140.96	show system cpustat	582
3.140.97	show tags	584
3.140.98	show threads	584
3.140.99	show torrent status	585
3.140.100	show upnp redirect	586
3.140.101	show version	586
3.140.102	show vpn-server	587
3.141	snmp community	588
3.142	snmp contact	589
3.143	snmp location	589
3.144	snmp view	590
3.145	snmp view exclude	591
3.146	snmp view include	591
3.147	sstp-server	592
3.147.1	sstp-server allow-bridging	592
3.147.2	sstp-server camouflage	593
3.147.3	sstp-server debug	593
3.147.4	sstp-server dhcp route	594
3.147.5	sstp-server interface	595

3.147.6	sstp-server ipv6cp	596
3.147.7	sstp-server lcp echo	596
3.147.8	sstp-server lcp force-pap	597
3.147.9	sstp-server mru	597
3.147.10	sstp-server mtu	598
3.147.11	sstp-server multi-login	599
3.147.12	sstp-server pool-range	599
3.147.13	sstp-server session-logout	600
3.147.14	sstp-server session-preempt	600
3.147.15	sstp-server static-ip	601
3.148	system	601
3.148.1	system button	602
3.148.2	system caption	603
3.148.3	system clock date	604
3.148.4	system clock timezone	604
3.148.5	system configuration factory-reset	605
3.148.6	system configuration fail-safe commit	605
3.148.7	system configuration fail-safe keep-alive	606
3.148.8	system configuration fail-safe rollback	606
3.148.9	system configuration fail-safe timer	607
3.148.10	system configuration save	607
3.148.11	system country	608
3.148.12	system debug	608
3.148.13	system description	609
3.148.14	system domainname	610
3.148.15	system hostname	611
3.148.16	system led	611
3.148.17	system led power schedule	612
3.148.18	system led power shutdown	613
3.148.19	system log clear	614
3.148.20	system log reduction	614
3.148.21	system log server	614
3.148.22	system log suppress	615
3.148.23	system mode	616
3.148.24	system ndss dump-report disable	616
3.148.25	system reboot	617
3.148.26	system set	618
3.148.27	system trace lock threshold	619
3.149	tools	620
3.149.1	tools arping	620
3.149.2	tools ping	621
3.149.3	tools ping6	623
3.149.4	tools traceroute	624

3.150	udpxy	626
3.150.1	udpxy buffer-size	626
3.150.2	udpxy buffer-timeout	627
3.150.3	udpxy interface	627
3.150.4	udpxy port	628
3.150.5	udpxy renew-interval	629
3.150.6	udpxy timeout	630
3.151	upnp forward	630
3.152	upnp lan	631
3.153	upnp redirect	632
3.154	user	633
3.154.1	user password	633
3.154.2	user tag	634
3.155	vpn-server	637
3.155.1	vpn-server dhcp route	637
3.155.2	vpn-server interface	638
3.155.3	vpn-server ipv6cp	639
3.155.4	vpn-server lcp echo	639
3.155.5	vpn-server lockout-policy	640
3.155.6	vpn-server mppe	641
3.155.7	vpn-server mppe-optional	642
3.155.8	vpn-server mru	642
3.155.9	vpn-server mtu	643
3.155.10	vpn-server multi-login	643
3.155.11	vpn-server pool-range	644
3.155.12	vpn-server session-logout	644
3.155.13	vpn-server session-preempt	645
3.155.14	vpn-server static-ip	645
	Glossary	647
	Appendix A	
	Interface Hierarchy	661
	Appendix B	
	HTTP API	663
B.1	REST Core Interface	663
B.1.1	Resource Location	663
B.1.2	Methods	663
B.1.3	Data Format	664
B.2	XML Core Interface	667
B.2.1	Command Request	668
B.2.2	Configuration Request	669
B.2.3	Request Packet	669

Appendix C	
SNMP MIB	671
C.1 SNMPv2-MIB	671
C.2 IF-MIB	671
C.3 IP-MIB	673
C.4 UDP-MIB	674
C.5 HOST-RESOURCES-MIB	674
C.6 UCD-SNMP-MIB	674
Appendix D	
IPsec Encryption Levels	677
D.1 weak	677
D.2 weak-pfs	678
D.3 normal	680
D.4 normal-pfs	681
D.5 normal-3des	682
D.6 normal-3des-pfs	683
D.7 high	684
D.8 strong	685
D.9 strong-aead	686
D.10 strong-aead-pfs	686

Product Overview

1.1 Hardware Configuration

CPU EcoNet EN7528DU/DA MIPS® 1004Kc 900MHz, 2 cores / 4 threads

RAM 256MB DDR3 (on-die)

Flash 128MB: Kioxia TC58CVG0S3HRAIJ, Winbond 5N01GVZEIG, XTX XT26G01CWSIGA

Ethernet

Ports	Chipset	Notes
4	Integrated	

Label	Speed	Notes
0	1000 Mbps	WAN port
1	1000 Mbps	
2	1000 Mbps	
3	1000 Mbps	

Wi-Fi

Band	Chipset	Notes
2.4 GHz	MediaTek MT7905DA	802.11ax 2x2
5 GHz		

Introduction to the CLI

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

The primary tool for managing the Sprinter 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.

Sprinter 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 Sprinter. 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 Sprinter 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 Sprinter 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 Sprinter 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>String</i>	Number of lines to show after match.
b	<i>String</i>	Number of lines to show before match.
c	<i>String</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,usb_3,single_usb_port,
          led_control,wifi_button, wifi5ghz,vht2ghz,mimo2ghz,
          mimo5ghz,atf2ghz,atf5ghz,wifi6,wifi_ft,wpa3,hwnat,
          hwnat_mib,link_agg,lte
```

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

```
ndw:
version: 4.1.2.17.1
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
```

```
(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,kabinet,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,usblte,usbmodem,
            usbnet,usbnet-extra,usbqmi,usbserial-extra,
            vpnserver,vpnserver-l2tp,webdav,wireguard,wpa-eap,
            zerotier
```

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

```

    ndw:
    version: 4.1.2.17.1
    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,kabinet,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: 4.02.A.7.0-0
    sandbox: draft
    title: 4.2 Alpha 7
    arch: mips

    ndm:
    exact: 0-0c7997d
    cdate: 27 Apr 2024

    bsp:
    exact: 0-844097c815
    cdate: 27 Apr 2024

    ndw:
    version: 4.1.2.17.1
    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,kabinet,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,
usbdsi,usbdlte,usbmodem,usbnet,usbnet-extra,usbqmi,
usbserial-extra,vpnserver,vpnserver-l2tp,webdav,
wireguard,wpa-eap,zerotier
```

```
ndw3:
  version: 1.73.1
```

```
manufacturer: Keenetic Ltd.
vendor: Keenetic
series: KN
model: Giga (KN-1011)
hw_version: 11108000
  hw_type: router
    hw_id: KN-1011
      device: Giga
        region: EA
          description: Keenetic Giga (KN-1011)
```

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

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

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Example

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

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

History

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

3.2.2 access-list deny

Description

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

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

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

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

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

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

Arguments

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

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

Example

```
(config-acl)> 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.

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

Example

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

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

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

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

History

Version	Description
2.00	The access-list permit command has been introduced.
2.06	New value 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.

Prefix no No

Change settings No

Multiple input No

Synopsis

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

Arguments

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

Example

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

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

History

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

3.4.5 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>`

Arguments

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

Example

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

History

Version	Description
2.00	The components install command has been introduced.

3.4.7 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 ]`

Arguments

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

Example

```
(config-comp)> list

firmware:
  version: 2.13.C.0.0-1

sandbox: stable

local:
  sandbox: beta

component:
  name: base

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

  preset: minimal
  preset: recommended
  queued: yes

...
```

History

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

3.4.8 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>	MTU value. Can take values in the range from 576 to 1500 inclusively.

Example

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

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

History

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

3.8 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
```

Arguments

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

Example

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

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

History

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

3.9.2 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
```

Arguments

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

Example

```
(config-ike-policy)> mode ikev2
IpSec::Manager: "test": crypto ike policy mode set to "ikev2".
```

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

History

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

3.9.3 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>	<i>IKE</i> proposal name. Latin letters, numbers, dots, hyphens and underscores are acceptable.

Example

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

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

History

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

3.10 crypto ike proposal

Description	Access to a group of commands to configure selected <i>IKE</i> proposal. If <i>IKE</i> 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 <i>IKE</i> proposal. At the same time references to this <i>IKE</i> proposal are automatically deleted from all <i>IKE</i> policy.								
Prefix no	Yes								
Change settings	Yes								
Multiple input	Yes								
Group entry	(config-ike-proposal)								
Synopsis	<pre>(config)> crypto ike proposal <name></pre> <pre>(config)> no crypto ike proposal <name></pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>name</td><td>String</td><td><i>IKE</i> proposal name. Latin letters, numbers, dots, hyphens and underscores are acceptable.</td></tr></table>			Argument	Value	Description	name	String	<i>IKE</i> proposal name. Latin letters, numbers, dots, hyphens and underscores are acceptable.
Argument	Value	Description							
name	String	<i>IKE</i> proposal name. Latin letters, numbers, dots, hyphens and underscores are acceptable.							
Example	<pre>(config)> crypto ike proposal test</pre> <pre>IpSec::Manager: "test": crypto ike proposal successfully created.</pre> <pre>(config)> no crypto ike proposal test</pre> <pre>IpSec::Manager: Crypto ike proposal "test" removed.</pre>								
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.06</td><td>The crypto ike proposal command has been introduced.</td></tr></table>			Version	Description	2.06	The crypto ike proposal command has been introduced.		
Version	Description								
2.06	The crypto ike proposal command has been introduced.								

3.10.1 crypto ike proposal aead

Description	Enable <i>AEAD</i> cypher mode on <i>IKE</i> proposal.
Prefix no	No
Change settings	No
Multiple input	No
Synopsis	<pre>(config-ike-proposal)> aead</pre>

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	DH group to work in the PFS 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	HMAC signature algorithm of IKE messages.
	sha1	
	aes-xcbc	
	sha256	
	sha384	
	sha512	
	aes-cmac	

Example

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

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

History

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

3.11 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: "VPLN2TPServer": crypto ipsec profile DPD action ►
set to "clear".
```

```
(config-ipsec-profile)> no dpd-clear
IpSec::Manager: "VPLN2TPServer": 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.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

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

Arguments

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

Example

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

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

History

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

3.12.6 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.

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

Example

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

```
Choose:
VirtualIPServer
VPNL2TPServer
```

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

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

History

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

3.12.9 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 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.

3.16.7 crypto map l2tp-server interface

Description Bind [L2TP](#) server to the specified interface.
Command with **no** prefix unbinds the server.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

Arguments

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

Example

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

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

```
Choose:
```

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

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

```
IpSec::Manager: "VPNLT2PSTServer": crypto map L2TP/IPsec server ►
is bound to ISP.
```

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

```
IpSec::Manager: "VPNLT2PSTServer": crypto map L2TP/IPsec server ►
is unbound.
```

History

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

3.16.8 crypto map l2tp-server ipv6cp

Description

Enable IPv6 support. DHCP IPv6 pools are created for each [L2TP](#) server. By default, the setting is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> l2tp-server ipv6cp
```

```
(config-crypto-map)> no l2tp-server ipv6cp
```

Example

```
(config-crypto-map)> l2tp-server ipv6cp
```

```
IpSec::Manager: "VPNLT2PSTServer": 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.

3.16.9 crypto map l2tp-server lcp echo

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

Arguments

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

Example

```
(config-crypto-map)> l2tp-server lcp echo 5 3
IpSec::Manager: "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.

3.16.10 crypto map l2tp-server mru

Description Set [MRU](#) value to be transmitted to [L2TP](#) server. By default, 1200 value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

3.16.11 crypto map l2tp-server mtu

Description Set [MTU](#) value to be transmitted to [L2TP](#) server. By default, 1400 value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

3.16.12 crypto map l2tp-server multi-login

Description

Allow connection to *L2TP* server for multiple users from one account.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

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

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

Example

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

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

History

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

3.16.13 crypto map l2tp-server nat

Description Enable translation of addresses for [L2TP](#) server.
Command with **no** prefix disables the translation.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

Example

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

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

History

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

3.16.14 crypto map l2tp-server range

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

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-crypto-map)> l2tp-server range <begin> <end> | <size>
(config-crypto-map)> no l2tp-server range
```

Arguments

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

Example

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

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

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

History

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

3.16.15 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.

3.16.16 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.

3.16.17 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.

3.16.18 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.

3.16.19 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.

3.16.20 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.

3.16.21 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.

3.16.22 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.

3.16.23 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.

3.16.24 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.

3.16.25 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.

3.16.26 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.

3.16.27 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.

3.16.28 crypto map virtual-ip dns-server

Description

Set [DNS](#) server issued to clients in Virtual IP server mode.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-crypto-map)> virtual-ip dns-server <address>
```

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

Arguments

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

Example

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

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

History

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

3.16.29 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.

3.16.30 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.

3.16.31 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.

3.16.32 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.

3.16.33 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.

3.16.34 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.

3.16.35 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.

3.16.36 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 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.

3.17.2 dns-proxy filter assign host profile

Description Assign a filtering profile to a network device.

Add new profile you can with help of **dns-proxy filter profile** command.

See the list of profiles you can with help of **show dns-proxy filter profiles** command.

Command with **no** prefix removes the defined profile for host. If you use no argument, the entire list of profiles will be cleared for hosts.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-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.

3.17.3 dns-proxy filter assign interface preset

Description Assign a filtering preset to all devices on segment (exclude ones with already assigned profiles/presets).

See the list of presets you can with help of [show dns-proxy filter presets](#) command.

Command with **no** prefix removes the defined preset for interface. If you use no argument, the entire list of presets for interfaces will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> filter assign interface preset <interface> <preset>
```

```
(config-dnspx)> no filter assign interface preset [ <interface> ]
```

Arguments

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

Example

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

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

```
(config-dnspx)> no filter assign interface preset
Dns::Filter::Public: Removed presets for interfaces.
```

History

Version	Description
3.08	The dns-proxy filter assign interface preset command has been introduced.

3.17.4 dns-proxy filter assign interface profile

Description Assign a filtering profile to all devices on segment (exclude ones with already assigned profiles/presets).

Add new profile you can with help of [dns-proxy filter profile](#) command.

See the list of profiles you can with help of [show dns-proxy filter profiles](#) command.

Command with **no** prefix removes the defined profile for interface. If you use no argument, the entire list of profiles for interfaces will be cleared.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

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

Arguments

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

Example

```
(config-dnspx)> filter assign interface profile ►
GigabitEthernet0/Vlan1 DnsProfile0
Dns::Filter::Public: Associated interface ►
"GigabitEthernet0/Vlan1" with profile "DnsProfile0".
```

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

```
(config-dnspx)> no filter assign interface profile
Dns::Filter::Public: Removed profiles for interfaces.
```

History

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

3.17.5 dns-proxy filter engine

Description Selects DNS engine.

Command with **no** prefix disables the feature. Config request will return empty value in case of disabled filter.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> filter engine <engine>
```

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

Arguments

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

Example

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

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

History

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

3.17.6 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.

3.17.7 dns-proxy filter profile description

Description

Assign description for DNS filtering profile.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-dnspx)> filter profile <name>description <description>
```

```
(config-dnspx)> no filter profile <name>description <description>
```

Arguments

Argument	Value	Description
name	<i>String</i>	Profile name.
description	<i>String</i>	Arbitrary description of the profile.

Example

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

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

History

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

3.17.8 dns-proxy filter profile dns53 upstream

Description

Add IP address of the DNS server to user-defined filtering profile. Number of servers are limited to 6.

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

Prefix no

Yes

Change settings Yes**Multiple input** Yes

Synopsis

```
(config-dnspx)> filter profile <name>dns53 upstream <address>[:<port>]

(config-dnspx)> no filter profile <name>dns53 description [ <address>
[:<port>] ]
```

Arguments

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

Example

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

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

```
(config-dnspx)> no filter profile test dns53 upstream 1.1.1.1
Dns::Filter::Public: Removed DNS name server 1.1.1.1 from profile ►
"test".
```

History

Version	Description
3.08	The dns-proxy filter profile dns53 upstream command has been introduced.

3.17.9 dns-proxy filter profile https upstream

Description Add [DNS over HTTPS](#) server to user-defined filtering profile. Number of servers are limited to 6.

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

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

Synopsis

```
(config-dnspx)> filter profile <name>https upstream <url> [ spki <hash>
]

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

Arguments

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

Example

```
(config-dnspx)> filter profile test https upstream ►
https://dns.google/resolve
Dns::Filter::Public: Added DNS-over-HTTPS name server ►
https://dns.google/resolve to profile "test".
```

```
(config-dnspx)> no filter profile test https upstream ►
https://dns.google/resolve
Dns::Filter::Public: Removed DNS-over-HTTPS name server ►
https://dns.google/resolve from profile "test".
```

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

History

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

3.17.10 dns-proxy filter profile intercept enable

Description Enable transit DNS requests interception for filtering profile. By default, the interception is disabled.

Command with **no** prefix disables the interception for filtering profile.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> filter profile <name>intercept enable
```

```
(config-dnspx)> no filter profile <name>intercept enable
```

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.

3.17.11 dns-proxy filter profile tls upstream

Description

Add [DNS over TLS](#) server to user-defined filtering profile. Number of servers are limited to 6.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-dnspx)> filter profile <name>tls upstream <address> [ <port>
] [ sni <fqdn> ] [ spki <hash> ]
```

```
(config-dnspx)> no filter profile <name>tls description [ <address> ] [
<port> ]
```

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.

3.17.12 dns-proxy https upstream

Description

Add *DNS over HTTPS* server.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config-dnspx)> https upstream <url> [ <format> ] [ sni <hash> ] [ on
<interface> ] [ domain <domain> ]

(config-dnspx)> no https upstream [ <url> ]
```

Arguments

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

Example

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

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

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

```
(config-dnspx)> https upstream https://my.domain.com/dns-query ►
dnsm domain my.lib
```

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

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

3.17.13 dns-proxy intercept enable

Description Enable transit DNS requests interception for system profile. By default, the interception is disabled.

Command with **no** prefix disables the interception for system profile.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnsp) > intercept enable
(config-dnsp) > no intercept enable
```

Example

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

3.17.14 dns-proxy max-ttl

Description Set maximum TTL for DNS proxy cached entries.

Command with **no** prefix removes maximum TTL value.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> max-ttl <max-ttl>
```

```
(config-dnspx)> no max-ttl
```

Arguments

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

Example

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

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

History

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

3.17.15 dns-proxy proceed

Description Set interval between concurrent requests, which is sent by DNS proxy to multiple DNS servers. By default, 500 value is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> proceed <proceed>
```

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

Arguments

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

Example

```
(config-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.

3.17.16 dns-proxy rebind-protect

Description Enable protect against *DNS rebinding* attacks. By default, auto mode is used. Command with **no** prefix disables protection.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspj)> rebind-protect (auto | strict)
```

```
(config-dnspj)> no rebind-protect
```

Arguments

Argument	Value	Description
auto	<i>Keyword</i>	Protect subnets for private interfaces.
strict	<i>Keyword</i>	Protect subnets from list IANA IPv4 Special-Purpose Address Registry ¹ .

Example

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

History

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

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

3.17.17 dns-proxy srr-reset

Description Set DNS proxy send-response rating reset time. By default, value 600000 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-dnspx)> srr-reset <srr-reset>
```

```
(config-dnspx)> no srr-reset
```

Arguments

Argument	Value	Description
srr-reset	<i>Integer</i>	The value of time reset in milliseconds. Can take values in the range from 0 to 600000.

Example

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

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

History

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

3.17.18 dns-proxy tls upstream

Description Add [DNS over TLS](#) server.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-dnspx)> tls upstream <address> [ <port> ] [ sni <fqdn> ] [ spki
<hash> ] [ on <interface> ] [ domain <domain> ]
```

```
(config-dnspx)> no tls upstream [ <address> ] [ <port> ]
```

Arguments

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

Example

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

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

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

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

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

History

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

3.18 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

² <http://www.dyndns.com>

³ <http://www.no-ip.com>

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
```

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 dyndns profile url command).

Example

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

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

History

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

3.19.5 dyndns profile update-interval

Description

Set the address update interval for DynDns.

Command with **no** prefix cancels the ability to update.

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>

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

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

History

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

3.23.2 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
Igmp::Proxy: Forced protocol: igmp-v1.
```

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

History

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

3.24 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
        UsbQmi
        UsbLte
        Yota
        Bridge
        PPPoE
        SSTPEthernet
        SSTP
        PPTP
        L2TP
        ZeroTier
        Wireguard
        Proxy
        OpenVPN
        IPIP
        XFRM
        TunnelSixInFour
        IKE
        Gre
        EoIP
        Clat
        MapT
        DsLite
        TunnelFourInSix
        Chilli
```

History

Version	Description
2.00	The interface command has been introduced.

3.25.1 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	<pre>(config-if)> authentication chap</pre>

```
(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	<pre>(config-if)> authentication mschap</pre> <pre>(config-if)> no authentication mschap</pre>				
Example	<pre>(config-if)> authentication mschap</pre> <pre>Network::Interface::Supplicant: "PPTP0": added authentication: ► MS-CHAP.</pre> <pre>(config-if)> no authentication mschap</pre> <pre>Network::Interface::Supplicant: "PPTP0": removed authentication: ► MS-CHAP.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>2.00</td><td>The interface authentication mschap command has been introduced.</td></tr> </tbody> </table>	Version	Description	2.00	The interface authentication mschap command has been introduced.
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	<pre>(config-if)> authentication mschap-v2</pre> <pre>(config-if)> no authentication mschap-v2</pre>				
Example	<pre>(config-if)> authentication mschap-v2</pre> <pre>Network::Interface::Supplicant: "PPTP0": authentication is ► unchanged.</pre> <pre>(config-if)> no authentication mschap-v2</pre> <pre>Network::Interface::Supplicant: "PPTP0": removed authentication: ► MS-CHAPv2.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>2.00</td><td>The interface authentication mschap-v2 command has been introduced.</td></tr> </tbody> </table>	Version	Description	2.00	The interface authentication mschap-v2 command has been introduced.
Version	Description				
2.00	The interface authentication mschap-v2 command has been introduced.				

3.25.8 interface authentication pap

Description Enable [PAP](#) authentication support.

Command with **no** prefix disables [PAP](#).

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Secure

Synopsis

```
(config-if)> authentication pap
(config-if)> no authentication pap
```

Example

```
(config-if)> authentication pap
Network::Interface::Supplicant: "PPTP0": added authentication: ►
PAP.

(config-if)> no authentication pap
Network::Interface::Supplicant: "PPTP0": removed authentication: ►
PAP.
```

History

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

3.25.9 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. 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. 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.
	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.

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	MAC address	MAC address of the registered client.
all	Keyword	Disable all MAC addresses.

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

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

History

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

3.25.29 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 <i>RADIUS</i> server.
server2	<i>String</i>	Address of second <i>RADIUS</i> 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 keeneticru_12
Chilli::Interface: "Chilli0": radiusnasid set to "keeneticru_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
```

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.
```

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 down

Description

Disable the network interface and persist the state “down” to the settings.

Command with **no** prefix enables the network interface and deletes “down” from settings.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(config-if)> down
```

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

Example

```
(config-if)> down
Network::Interface::Base: "GigabitEthernet0/2": interface is down.
```

```
(config-if)> up
Network::Interface::Base: "GigabitEthernet0/2": interface is up.
```

History

Version	Description
2.00	The interface down command has been introduced.

3.25.53 interface downlink-mumimo

Description

Enable the downlink (explicit) *Beamforming* (eBF) MU-MIMO for AP 5 GHz. 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.

3.25.54 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.

3.25.55 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.

3.25.56 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.

3.25.57 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.

3.25.58 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.

3.25.59 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.

3.25.60 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.

3.25.61 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.

3.25.62 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.

3.25.63 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.

3.25.64 interface encryption tkip hold-down

Description

Set the "countermeasure" timer value for [TKIP](#) when the joint use [WPA](#) and [WPA2](#) security algorithms on the wireless interface. By default, the value 60 is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type WiFi**Synopsis**`(config-if)> encryption tkip hold-down <hold-down>``(config-if)> no encryption tkip hold-down`**Arguments**

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

Example

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

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

History

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

3.25.65 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.

3.25.66 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.

3.25.67 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.

3.25.68 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.

3.25.69 interface flowcontrol

Description

Configure Ethernet flow control Tx/Rx. By default, the feature is enabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-if)> flowcontrol on
(config-if)> no flowcontrol [send]
```

Arguments

Argument	Value	Description
send	<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.

3.25.70 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

Argument	Value	Description
		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.

3.25.71 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.

3.25.72 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.

3.25.73 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.

3.25.74 interface green-ethernet

Description Enable *Green Ethernet* mode on the interface. By default, this mode is disabled. Command with **no** prefix disables the setting.

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

Synopsis

```
(config-if)> green-ethernet
(config-if)> no green-ethernet
```

Example

```
(config-if)> green-ethernet
Network::Interface::Ethernet: Green ethernet enabled.

(config-if)> no green-ethernet
Network::Interface::Ethernet: Green ethernet disabled.
```

History

Version	Description
3.05	The interface green-ethernet command has been introduced.

3.25.75 interface hide-ssid

Description	Enable hidden SSID mode. When using this feature, Access Point will not be displayed in the list of available wireless networks. But if user informed of the existence of this network and know its SSID, than he can connect to it. The mode is disabled by default. Command with no prefix disables the mode.				
Prefix no	Yes				
Change settings	Yes				
Multiple input	No				
Interface type	Access Point				
Synopsis	<pre>(config-if)> hide-ssid</pre> <pre>(config-if)> no hide-ssid</pre>				
Example	<pre>(config-if)> hide-ssid Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ► SSID broadcasting disabled.</pre> <pre>(config-if)> no hide-ssid Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ► SSID broadcasting enabled.</pre>				
History	<table> <tr> <th>Version</th><th>Description</th></tr> <tr> <td>2.00</td><td>The interface hide-ssid command has been introduced.</td></tr> </table>	Version	Description	2.00	The interface hide-ssid command has been introduced.
Version	Description				
2.00	The interface hide-ssid command has been introduced.				

3.25.76 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	<pre>(config-if)> iapp auto</pre>
Example	<pre>(config-if)> iapp auto Network::Interface::Rtx::Iapp: Bridge0 autoconfigured.</pre>

History

Version	Description
3.03	The interface iapp auto command has been introduced.

3.25.77 interface iapp key

Description

Assign the *IAPP* Mobile Domain key for successful synchronization between Access Points where *FT* works (**interface ft enable** command). Access Points must belong to the same IP-subnet. By default, the key is not assigned.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Bridge

Synopsis

```
(config-if)> iapp key <key>
```

```
(config-if)> no iapp key
```

Arguments

Argument	Value	Description
key	<i>String</i>	The value of <i>IAPP</i> key. Maximum key length is 64 characters.

Example

```
(config-if)> iapp key 11223344556677
Network::Interface::Rtx::Iapp: Bridge0 key applied.
```

```
(config-if)> no iapp key
Network::Interface::Rtx::Iapp: Bridge0 key cleared.
```

History

Version	Description
2.13	The interface iapp key command has been introduced.

3.25.78 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 <i><idle-timeout></i> (config-if)> no idle-timeout								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>idle-timeout</td><td><i>Integer</i></td><td>Idle-timeout value in seconds. Can take values in the range from 60 to 2147483646.</td></tr></table>			Argument	Value	Description	idle-timeout	<i>Integer</i>	Idle-timeout value in seconds. Can take values in the range from 60 to 2147483646.
Argument	Value	Description							
idle-timeout	<i>Integer</i>	Idle-timeout value in seconds. Can take values in the range from 60 to 2147483646.							
Example	(config-if)> idle-timeout 500 Network::Interface::Rtx::WifiMaster: "WifiMaster1": idle timeout ► value is 500 sec. (config-if)> no idle-timeout Network::Interface::Rtx::WifiMaster: "WifiMaster1": idle timeout ► disabled.								
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>3.06</td><td>The interface idle-timeout command has been introduced.</td></tr></table>			Version	Description	3.06	The interface idle-timeout command has been introduced.		
Version	Description								
3.06	The interface idle-timeout command has been introduced.								

3.25.79 interface igmp downstream

Description	Enable <i>IGMP</i> 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	<pre>(config-if)> igmp downstream</pre> <pre>(config-if)> no igmp downstream</pre>
Example	<pre>(config-if)> igmp downstream</pre> <pre>(config-if)> no igmp downstream</pre>

History

Version	Description
2.00	The interface igmp downstream command has been introduced.

3.25.80 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.

3.25.81 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.

3.25.82 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.

3.25.83 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.

3.25.84 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.

3.25.85 interface ip address

Description Change the IP address and the mask of the network interface. If the address automatic configuration service is running on the interface, for instance, DHCP client, (see [interface ip address dhcp](#)), then the manually set address can be overwritten.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

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

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

Arguments

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

Example

The network address, defined by the IP address and mask, can be specified in either of the two ways: specify a mask in the canonical form, or set the prefix bit length.

```
(config)> ip address 192.168.9.1/24
Network::Interface::Ip: "Bridge3": IP address is 192.168.9.1/24.
```

```
(config)> no ip address
Network::Interface::Ip: "Bridge3": IP address cleared.
```

History

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

3.25.86 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.

3.25.87 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 .

3.25.88 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.

3.25.89 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

Argument	Value	Description
		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.

3.25.90 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.

3.25.91 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 "Sprinter"
Dhcp::Client: ISP DHCP client vendor class is set to "Sprinter".
```

```
(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.

3.25.92 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.

3.25.93 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.

3.25.94 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.

3.25.95 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
```

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

Example

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

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

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

3.25.96 interface ip dhcp client hostname

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

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-if)> ip dhcp client hostname <hostname>
```

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

Arguments

Argument	Value	Description
hostname	<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).
```

History

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

3.25.97 interface ip dhcp client name-servers

Description

Use [DNS](#) server addresses which are received via [DHCP](#). By default, the function is enabled.

Command with **no** prefix denies using of [DNS](#) server addresses which are received via [DHCP](#).

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Ethernet

Synopsis

```
(config-if)> ip dhcp client name-servers
```

```
(config-if)> no ip dhcp client name-servers
```

Example

```
(config-if)> ip dhcp client name-servers
Dhcp::Client: ISP DHCP name servers are enabled.
```

```
(config-if)> no ip dhcp client name-servers
Dhcp::Client: ISP DHCP name servers are disabled.
```

History

Version	Description
2.00	The interface ip dhcp client name-servers command has been introduced.

3.25.98 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.

3.25.99 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.

3.25.100 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.

3.25.101 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.

3.25.102 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.

3.25.103 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.

3.25.104 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.

3.25.105 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.

3.25.106 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.

3.25.107 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.

3.25.108 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 <i>MSS</i> , equal to the minimum <i>MTU</i> along the path to the remote peer.
mss	<i>Integer</i>	<i>MSS</i> upper limit.

Example

```
(config-if)> ip tcp adjust-mss pmtu
Network::Interface::Ip: "L2TP0": TCP-MSS adjustment enabled.
```

```
(config-if)> ip tcp adjust-mss 1300
Network::Interface::Ip: "L2TP0": TCP-MSS adjustment enabled.
```

```
(config-if)> no ip tcp adjust-mss
Network::Interface::Ip: "L2TP0": TCP-MSS adjustment disabled.
```

History

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

3.25.109 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.

3.25.110 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.

3.25.111 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.

3.25.112 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.

3.25.113 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.

3.25.114 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.

3.25.115 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.

3.25.116 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.

3.25.117 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.

3.25.118 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.

3.25.119 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.

3.25.120 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.

3.25.121 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.

3.25.122 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.

3.25.123 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
```

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.
```

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

3.25.124 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.

3.25.125 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.

3.25.126 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.

3.25.127 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.

3.25.128 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.

3.25.129 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.

3.25.130 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.

3.25.131 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.

3.25.132 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.

3.25.133 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.

3.25.134 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.

3.25.135 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.

3.25.136 interface led wan

Description Display the interface status by means of LED. SelectedWan control should be chosen with **system led** command. By default, function is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-if)> led wan
(config-if)> no led wan
```

Example

```
(config-if)> led wan
Network::Interface::Led: Selected WAN GigabitEthernet1.
```

```
(config-if)> no led wan
Network::Interface::Led: Selected no WAN.
```

History

Version	Description
2.08	The interface led wan command has been introduced.

3.25.137 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.

3.25.138 interface mac access-list address

Description

Add a MAC address to the permit/deny filtering list of the interface. Type of access list is set with **interface mac access-list type** command.

Command with **no** prefix removes the specified MAC address from the [ACL](#).

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

Access Point

Synopsis

```
(config-if)> mac access-list address <address>
```

```
(config-if)> no mac access-list address <address>
```

Arguments

Argument	Value	Description
address	<i>MAC address</i>	A MAC address to be added to the ACL .

Example

```
(config-if)> mac access-list address 64:a2:f9:53:b2:12
Network::Interface::Ethernet: "WifiMaster0/AccessPoint1": added ►
64:a2:f9:53:b2:12 to the ACL.
```

```
(config-if)> no mac access-list address 64:a2:f9:53:b2:12
Network::Interface::Ethernet: "WifiMaster0/AccessPoint1": removed ►
64:a2:f9:53:b2:12 from the ACL.
```

```
(config-if)> no mac access-list address
Network::Interface::Ethernet: "WifiMaster0/AccessPoint1": ACL ►
cleared.
```

History

Version	Description
2.00	The interface mac access-list address command has been introduced.

3.25.139 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.

3.25.140 interface mac address

Description Set the MAC address to the specified network interface. Address is specified in hexadecimal format 00:00:00:00:00:00. The command allows one to assign arbitrary address, but warns the user if the new address “multicast” bit is set or “OUI enforced” bit is cleared.

Command with **no** prefix resets the original MAC addresses on the interface.

Warning: Change MAC address on Wi-Fi interface is prohibited.

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

Synopsis

```
(config-if)> mac address <mac>
```

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

Arguments

Argument	Value	Description
mac	MAC address	New MAC address of the interface.

Example

```
(config-if)> mac address 3C:1F:6E:2A:1C:BA
```

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

History

Version	Description
2.00	The interface mac address command has been introduced.

3.25.141 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.

3.25.142 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.

3.25.143 interface mac bssid

Description Specify the Access Point's MAC address to connect to [WISP](#).

Command with **no** prefix removes the MAC address.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WifiStation

Synopsis

```
(config-if)> mac bssid <bssid>
(config-if)> no mac bssid
```

Arguments

Argument	Value	Description
bssid	MAC address	MAC address of WISP Access Point.

Example

```
(config-if)> mac bssid 56:ff:20:00:1e:11
Network::Interface::WifiStation: BSSID set to 56:ff:20:00:1e:11.
```

```
(config-if)> no mac bssid
Network::Interface::WifiStation: BSSID cleared.
```

History

Version	Description
2.13	The interface mac bssid command has been introduced.

3.25.144 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.

3.25.145 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	<pre>(config-if)> openconnect accept-addresses</pre> <pre>(config-if)> no openconnect accept-addresses</pre>				
Example	<pre>(config-if)> openconnect accept-addresses</pre> <pre>OpenConnect::Interface: "OpenConnect0": enabled addresses accept.</pre> <pre>(config-if)> no openconnect accept-addresses</pre> <pre>OpenConnect::Interface: "OpenConnect0": disabled addresses accept.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>4.02</td><td>The interface openconnect accept-addresses command has been introduced.</td></tr> </tbody> </table>	Version	Description	4.02	The interface openconnect accept-addresses command has been introduced.
Version	Description				
4.02	The interface openconnect accept-addresses command has been introduced.				

3.25.146 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	<pre>(config-if)> openconnect accept-routes</pre> <pre>(config-if)> no openconnect accept-routes</pre>
Example	<pre>(config-if)> openconnect accept-routes</pre> <pre>OpenConnect::Interface: "OpenConnect0": enabled routes accept.</pre> <pre>(config-if)> no openconnect accept-routes</pre> <pre>OpenConnect::Interface: "OpenConnect0": disabled routes accept.</pre>

History

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

3.25.147 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

```
(config-if)> openconnect authgroup <authgroup>
```

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

Arguments

Argument	Value	Description
authgroup	<i>String</i>	The group name.

Example

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

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

History

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

3.25.148 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.

3.25.149 interface openconnect protocol fortinet

Description Enable support [Fortinet](https://www.infradead.org/openconnect/fortinet.html)¹³ protocol for the *OpenConnect*.
Command with **no** prefix removes the setting.

Prefix no	Yes
Change settings	Yes
Multiple input	No
Interface type	OpenConnect

Synopsis

```
(config-if)> openconnect protocol fortinet
(config-if)> no openconnect protocol
```

Example

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

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

¹³ <https://www.infradead.org/openconnect/fortinet.html>

History

Version	Description
4.03	The interface openconnect protocol fortinet command has been introduced.

3.25.150 interface openvpn accept-routes**Description**

Enable receiving routes from a remote side via OpenVPN.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

OpenVPN

Synopsis

```
(config-if)> openvpn accept-routes
```

```
(config-if)> no openvpn accept-routes
```

Example

```
(config-if)> openvpn accept-routes
```

```
Network::Interface::OpenVpn: "OpenVPN0": enable automatic routes ►  
accept via tunnel.
```

```
(config-if)> no openvpn accept-routes
```

```
Network::Interface::OpenVpn: "OpenVPN0": disable automatic routes ►  
accept via tunnel.
```

History

Version	Description
2.10	The interface openvpn accept-routes command has been introduced.

3.25.151 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.

3.25.152 interface openvpn name-servers

Description

Use [DNS](#) server addresses which are received via OpenVPN server. By default, the function is enabled.

Command with **no** prefix denies using of [DNS](#) server addresses which are received via OpenVPN server.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

OpenVPN

Synopsis

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

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

Example

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

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

History

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

3.25.153 interface peer

Description 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.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

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

Arguments

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

Example

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

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

History

Version	Description
2.00	The interface peer command has been introduced.
2.12	Added the ability to change the port of a remote server.

3.25.154 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	<pre>(config-if)> peer-isolation</pre> <pre>(config-if)> no peer-isolation</pre>				
Example	<pre>(config-if)> peer-isolation</pre> <pre>Network::Interface::Ethernet: "Bridge0": peer isolation enabled.</pre> <pre>(config-if)> no peer-isolation</pre> <pre>Network::Interface::Ethernet: "Bridge0": peer isolation disabled.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>2.10</td><td>The interface peer-isolation command has been introduced.</td></tr> </tbody> </table>	Version	Description	2.10	The interface peer-isolation command has been introduced.
Version	Description				
2.10	The interface peer-isolation command has been introduced.				

3.25.155 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	<pre>(config-if)> ping-check profile <profile></pre> <pre>(config-if)> no ping-check profile</pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>profile</td><td><i>String</i></td><td>Profile name to assign.</td></tr></table>			Argument	Value	Description	profile	<i>String</i>	Profile name to assign.
Argument	Value	Description							
profile	<i>String</i>	Profile name to assign.							
Example	<pre>(config-if)> ping-check profile test</pre> <pre>PingCheck::Client: Set ping-check profile for interface "ISP".</pre> <pre>(config-if)> no ping-check profile</pre> <pre>PingCheck::Client: Reset ping-check profile for interface "ISP".</pre>								
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.04</td><td>The interface ping-check profile command has been introduced.</td></tr></table>			Version	Description	2.04	The interface ping-check profile command has been introduced.		
Version	Description								
2.04	The interface ping-check profile command has been introduced.								

3.25.156 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 Ping Check on the binded interface is triggered. If this argument is not specified, the interface binded with Ping Check profile will be restarted.

Example

```
(config-if)> ping-check restart
PingCheck::Client: Enabled "PPPoE0" interface restart.
```

```
(config-if)> ping-check restart ISP
PingCheck::Client: Enabled "ISP" interface restart for "PPPoE0".
```

```
(config-if)> no ping-check restart
PingCheck::Client: Remove restart settings for "PPPoE0".
```

History

Version	Description
3.04	The interface ping-check restart command has been introduced.

3.25.157 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.

3.25.158 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.

3.25.159 interface power

Description

Set the transmitter power for the radio interface. Transmitter power is limited by the hardware capabilities and state laws applicable to radio broadcast. This command allows one to only reduce the power of the transmitter relative to its maximum power, such as to decrease potential interference with other devices in this range/band. By default, the setting value of the power is set to 100.

Prefix no

No

Change settings

Yes

Multiple input

No

Interface type

Radio

Synopsis

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

Arguments

Argument	Value	Description
power	<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.
```

History

Version	Description
2.00	The interface power command has been introduced.

3.25.160 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.

3.25.161 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.

3.25.162 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.

3.25.163 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	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>via</td><td>Interface</td><td>Interface through which remote node is accessed.</td></tr></table>	Argument	Value	Description	via	Interface	Interface through which remote node is accessed.
Argument	Value	Description					
via	Interface	Interface through which remote node is accessed.					
Example	(config-if)> proxy connect via WifiMaster1/WifiStation0 Proxy::Interface: "Proxy0": set connection via ► WifiMaster1/WifiStation0. (config-if)> no proxy connect Proxy::Interface: "Proxy0": set connection via any interface.						
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>3.09</td><td>The interface proxy connect command has been introduced.</td></tr></table>	Version	Description	3.09	The interface proxy connect command has been introduced.		
Version	Description						
3.09	The interface proxy connect command has been introduced.						

3.25.164 interface proxy protocol

Description	Set the connection protocol. By default, the http protocol and <i>TCP</i> 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	<pre>(config-if)> proxy protocol <i><protocol></i></pre><pre>(config-if)> no proxy protocol</pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td rowspan="2">protocol</td><td>socks5</td><td>Use <i>SOCKS5</i> protocol for connection.</td></tr><tr><td>http</td><td>Use <i>HTTP or HTTPS</i> protocol for connection.</td></tr></table>	Argument	Value	Description	protocol	socks5	Use <i>SOCKS5</i> protocol for connection.	http	Use <i>HTTP or HTTPS</i> protocol for connection.
Argument	Value	Description							
protocol	socks5	Use <i>SOCKS5</i> protocol for connection.							
	http	Use <i>HTTP or HTTPS</i> 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.

3.25.165 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.

3.25.166 interface proxy upstream

Description

Set proxy server for connection.

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

Prefix no

Yes

Change settings

Yes

Multiple input No

Interface type Proxy

Synopsis

```
(config-if)> proxy upstream <host> [<port>]
(config-if)> no proxy upstream
```

Arguments

Argument	Value	Description
host	<i>String</i>	IP-address or domain name of proxy server.
port	<i>Integer</i>	The server port.

Example

```
(config-if)> proxy upstream 161.8.174.48 1080
Proxy::Interface: "Proxy0": set proxy upstream to ►
161.8.174.48:1080.
```

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

History

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

3.25.167 interface reconnect-delay

Description Set the period of time between reconnection attempts. By default, value 3 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type PPP

Synopsis

```
(config-if)> reconnect-delay <sec>
(config-if)> no reconnect-delay
```

Arguments

Argument	Value	Description
sec	<i>Integer</i>	Value of time in seconds. Can take values in the range from 3 to 600.

Example

```
(config-if)> reconnect-delay 3
Network::Interface::Ppp: "PPTP1": reconnect delay set to 3 ►
seconds.
```

```
(config-if)> no reconnect-delay
Network::Interface::Ppp: "PPTP0": reconnect delay reset to ►
default.
```

History

Version	Description
2.11	The interface reconnect-delay command has been introduced.

3.25.168 interface rekey-interval

Description

Set the period of time between automatic changes of the secret keys, which all devices on the network share. By default, 86400 value is used.

Command with **no** prefix disables keys changing.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WiFi

Synopsis

```
(config-if)> rekey-interval <interval>
```

```
(config-if)> no rekey-interval
```

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.

3.25.169 interface rename

Description Assign arbitrary name to the specified network interface. The interface can be referred to by the new name just like by ID.

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

Warning: Do not rename Home interface. This can cause unpredictable system errors.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

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

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.

Version	Description
2.08	The interface rename command has been introduced.

3.25.170 interface rf e2p set

Description Change the memory cell value of calibration data at *offset* by *value* for the specified interface.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis

```
(config-if) rf e2p set <offset> <value>
```

Arguments

Argument	Value	Description
offset	<i>Hex</i>	Memory cell location. Can take values in the range from 1E0 to 1FE.
value	<i>Hex</i>	Value to be set. Can take values in the range from 0 to FFFF.

Example

```
(config-if)> rf e2p set 1f6 0
Network::Interface::Rtx::WifiMaster: EEPROM [0x01F6]:0000 set.
```

History

Version	Description
2.04	The interface rf e2p set command has been introduced.

3.25.171 interface role

Description

Set a role for the interface. Multiple roles can be assigned to one interface. Command is used for correct view of VLAN connections in the web interface.

Command with **no** prefix removes the role. If you use no arguments, the entire list of roles will be removed.

Prefix no

Yes

Change settings

No

Multiple input

Yes

Synopsis

```
(config-if)> role <role> [ for <ifor> ]
```

```
(config-if)> no role [ role ]
```

Arguments

Argument	Value	Description
role	inet	Interface is used for Internet connection.
	iptv	Interface is used for IPTV service.
	voip	Interface is used for VoIP service.
	misc	Interface is used for IP Policy .
ifor	<i>Interface</i>	Full interface name or an alias.

Example

```
(config-if)> role iptv for GigabitEthernet1
Network::Interface::Base: "GigabitEthernet1": assigned role ▶
"iptv" for GigabitEthernet1.
```

```
(config-if)> no role iptv for GigabitEthernet1
Network::Interface::Base: "GigabitEthernet1": deleted role "iptv".
```

```
(config-if)> no role
Network::Interface::Base: "GigabitEthernet1": deleted all roles.
```

History

Version	Description
2.06	The interface role command has been introduced.
2.10	Argument <code>misc</code> was added.

3.25.172 interface rrm

Description

Enable [RRM](#) for search of nearby APs according to IEEE 802.11k standard in order to provide this AP list to the subscriber device by request. By default, the option is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

AccessPoint

Synopsis

```
(config-if)> rrm
```

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

Example

```
(config-if)> rrm
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
RRM enabled.
```

```
(config-if)> no rrm
Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ►
RRM disabled.
```

History

Version	Description
2.13	The interface rrm command has been introduced.

3.25.173 interface rssi-threshold

Description

Set the RSSI signal strength threshold for the Access Point at which Wi-Fi clients will be disconnected and cannot connect to the Access Point. By default, the RSSI value 0 is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type AccessPoint

Synopsis

```
(config-if)> rssi-threshold <rssi-threshold>
(config-if)> no rssi-threshold
```

Arguments

Argument	Value	Description
rssi-threshold	<i>Integer</i>	RSSI values in the range from -100 to 0. If value is set to 0, the setting is disabled.

Example

```
(config-if)> rssi-threshold -30
Network::Interface::Mtk::AccessPoint: "WifiMaster0/AccessPoint0": ►
rss threshold is set to -30.

(config-if)> no rssi-threshold
Network::Interface::Mtk::AccessPoint: "WifiMaster0/AccessPoint0": ►
rss threshold reset to 0.
```

History

Version	Description
4.01	The interface rssi-threshold command has been introduced.

3.25.174 interface schedule

Description Assign a schedule to the interface. Schedule must be created and customized with **schedule action** command before execution.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

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

Arguments

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

Example

```
(config-if)> schedule WIFI
Network::Interface::Base: "WifiMaster0": schedule is "WiFi".
```

```
(config-if)> no schedule
Network::Interface::Base: "WifiMaster0": schedule cleared.
```

History

Version	Description
2.06	The interface schedule command has been introduced.

3.25.175 interface security-level

Description

Specify the interface security level. The security levels define the firewall logic:

- Allow establishing private → public connections.
- Prohibit establishing connections coming to the public interface, i. e. in the direction public → private and public → public.
- The device itself accepts network connections (allows control) only from private interfaces.
- Data transfer between private interfaces can be allowed or disallowed depending on the **isolate-private** global parameter.
- protected interfaces have no access to device and to other private/protected subnetworks, but they have access to public interfaces and to the internet. The device provides only DHCP and DNS services to the protected segments.
- Data transfer from private to protected interfaces is forbidden by default. To allow such connection use the **no isolate-private** command.

Note: By default, to all newly created interfaces public security level assigned.

Access lists **access-list** have higher priority than the security levels, so they can be used to set additional rules of packet filtering.

Prefix no No

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-if)> security-level (public | private | protected)
```

Example

Despite the fact that there is no functionality to disable the firewall completely, it is possible to disable it for particular directions. Suppose that it is necessary to allow data transfer between the “home” network Home and global network

PPPoE0. To accomplish that, to both interfaces must be assigned private security level and function **isolate-private** must be disabled.

```
(config)> interface Home security-level private
Network::Interface::IP: "Bridge0": security level set to ►
"private".
```

```
(config)> interface PPPoE0 security-level private
Network::Interface::IP: "PPPoE0": security level set to "private".
```

```
(config)> no isolate-private
Netfilter::Manager: Private networks not isolated.
```

Note: The firewall and the address translation — are the functions designed to solve fundamentally different problems. Enabling NAT between Home and PPPoE0 interfaces in the configuration shown above, does not prohibit access to the network Home from the global network. Even as the address translation is enabled by command **ip nat Home**, the packets from PPPoE0 will get to Home network.

History

Version	Description
2.00	The interface security-level command has been introduced.
2.06	The protected parameter was added.

3.25.176 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": 11ax 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.

3.25.177 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.

3.25.178 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.

3.25.179 interface ssid

Description Specify the wireless network name (SSID) for Wi-Fi Station and Access Point interfaces. Depending on the interface type, the SSID value is processed differently.

- For Access Point, the SSID is a necessary setting, without which the connection will not be accepted.
- For the Wi-Fi Station SSID determines which access point Wi-Fi Station will connect to. Without a specified SSID, Wi-Fi Station 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	<pre>(config-if)> ssid <ssid></pre> <pre>(config-if)> no ssid</pre>							
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>ssid</td><td>String</td><td>Wireless Network Name (SSID).</td></tr></table>		Argument	Value	Description	ssid	String	Wireless Network Name (SSID).
Argument	Value	Description						
ssid	String	Wireless Network Name (SSID).						
Example	<pre>(config-if)> ssid MYNETWORK</pre> <pre>Network::Interface::Wireless: "WifiMaster0/AccessPoint0": SSID ► saved.</pre> <pre>(config-if)> no ssid</pre> <pre>Network::Interface::Rtx::AccessPoint: "WifiMaster0/AccessPoint0": ► SSID reset.</pre>							
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.00</td><td>The interface ssid command has been introduced.</td></tr></table>		Version	Description	2.00	The interface ssid command has been introduced.		
Version	Description							
2.00	The interface ssid command has been introduced.							

3.25.180 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	<pre>(config-if)> standby enable</pre> <pre>(config-if)> no standby enable</pre>
Example	<pre>(config-if)> standby enable</pre> <pre>Network::Interface::Standby: "CdcEthernet0": enabled.</pre>

```
(config-if)> no standby enable
Network::Interface::Standby: "CdcEthernet0": disabled.
```

History

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

3.25.181 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.

3.25.182 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	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>vid</td><td><i>Integer</i></td><td>Access VLAN ID. Can take values in the range from 1 to 4094 inclusively.</td></tr></table>	Argument	Value	Description	vid	<i>Integer</i>	Access VLAN ID. Can take values in the range from 1 to 4094 inclusively.
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	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.06</td><td>The interface switchport access command has been introduced.</td></tr></table>	Version	Description	2.06	The interface switchport access command has been introduced.		
Version	Description						
2.06	The interface switchport access command has been introduced.						

3.25.183 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><thead><tr><th>Argument</th><th>Value</th><th>Description</th></tr></thead><tbody><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></tbody></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

```
(config-if)> switchport friend vlan 2
Network::Interface::Switch: "GigabitEthernet0/0": set friend ►
VLAN ID: 2.
```

History

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

3.25.184 interface switchport mode

Description

Set access or trunk mode for [VLAN](#). By default, access mode is set.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

Port

Synopsis

```
(config-if)> switchport mode [ (access [q-in-q]) | trunk]
```

```
(config-if)> no switchport mode
```

Arguments

Argument	Value	Description
mode	access	Enable the access mode to a VLAN , that is the mode when only the untagged frames pass through the port. The incoming frames get tagged with the PVID marker, which is set with switchport access command. The port is an output one only for VLAN with PVID ID. Once a frame is transferred to the port, the VLAN marker gets removed.
	trunk	Enable the VLAN trunk mode, that is the mode when frames belonging to several VLANs get transmitted through the port. In this case each frame gets tagged. The list of IDs of VLAN networks that include the port is set with switchport trunk command.
q-in-q	<i>Keyword</i>	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.

3.25.185 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>	VLAN 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.

3.25.186 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.

3.25.187 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.

3.25.188 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.

3.25.189 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.

3.25.190 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.

3.25.191 interface tunnel source

Description Set the local end of tunnel. If it is used in conjunction with an automatic *IPSec* connection associated with the tunnel, then the reception mode of IPsec IKE connections is activated to establish a secure tunnel.

Prefix no No

Change settings Yes

Multiple input No

Interface type Tunnel

Synopsis

```
(config-if)> tunnel source (auto | <interface> | <address>)
```

Arguments

Argument	Value	Description
auto	<i>Keyword</i>	Set the current working WAN interface.
interface	<i>Interface</i>	Full interface name or an alias.
address	<i>IP address</i>	Local IP-address of the tunnel.

Example

```
(config-if)> tunnel source auto
Network::Interface::Tunnel: "Gre0": set source interface to auto.
```

History

Version	Description
2.08	The interface tunnel source command has been introduced.
2.09	The auto argument has been added.
3.08	The no prefix was removed as obsolete.

3.25.192 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.

3.25.193 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.

3.25.194 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_code1 — 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.

3.25.195 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.

3.25.196 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.

3.25.197 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.

3.25.198 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.

3.25.199 interface vlan qos egress map

Description

Configure [NTCE](#) priority mapping to [IEEE P802.1p](#)¹⁴ PCP for outgoing packets. By default, value 0 is used.

Command with **no** prefix resets the [IEEE P802.1p](#)¹⁵ 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	<i>Integer</i>	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	<i>Integer</i>	The new value of the IEEE P802.1p ¹⁶ priority code point.

Example

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

¹⁴ https://en.wikipedia.org/wiki/IEEE_P802.1p

¹⁵ https://en.wikipedia.org/wiki/IEEE_P802.1p

¹⁶ https://en.wikipedia.org/wiki/IEEE_P802.1p

```
(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.

3.25.200 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.

3.25.201 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>
```

```
(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.

Example

```
(config-if)> wireguard asc 120 22 320 0 0 1 2 3 4  
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.

3.25.202 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	<pre>(config-if)> wireguard listen-port <port></pre> <pre>(config-if)> no wireguard listen-port</pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>port</td><td><i>Integer</i></td><td>Port number. Can take values in the range from 1 to 65535 inclusively.</td></tr></table>			Argument	Value	Description	port	<i>Integer</i>	Port number. Can take values in the range from 1 to 65535 inclusively.
Argument	Value	Description							
port	<i>Integer</i>	Port number. Can take values in the range from 1 to 65535 inclusively.							
Example	<pre>(config-if)> wireguard listen-port 11633</pre><pre>Wireguard::Interface: "Wireguard4": set listen port to "11633".</pre> <pre>(config-if)> no wireguard listen-port</pre><pre>Wireguard::Interface: "Wireguard4": reset listen port.</pre>								
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>3.03</td><td>The interface wireguard listen-port command has been introduced.</td></tr></table>			Version	Description	3.03	The interface wireguard listen-port command has been introduced.		
Version	Description								
3.03	The interface wireguard listen-port command has been introduced.								

3.25.203 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	<pre>(config-if)> wireguard peer <key></pre> <pre>(config-if)> no wireguard peer <key></pre>

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.

3.25.203.1 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 ►
"gbplgW3pBQKssrAdahlhiib13Jl123ZM8dBIjjPmm2g=".

(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 ►
"gbplgW3pBQKssrAdahlhiib13Jl123ZM8dBIjjPmm2g=".

(config-wg-peer)> no allow-ips
Wireguard::Interface: "Wireguard4": clear allowed IPs of peer ►
"gbplgW3pBQKssrAdahlhiib13Jl123ZM8dBIjjPmm2g=".
```

History

Version	Description
3.03	The interface wireguard peer allow-ips command has been introduced.

3.25.203.2 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 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.

3.25.203.3 interface wireguard peer connect**Description**

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

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

WireGuard

Synopsis

```
(config-wg-peer)> connect via <via>
```

```
(config-wg-peer)> no connect
```

Arguments

Argument	Value	Description
via	<i>Interface</i>	Full interface name or an alias.

Example

```
(config-wg-peer)> connect via ISP
Wireguard::Interface: "Wireguard0": set peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byP0zK/MAI67VmXs=" connect via "ISP"
```

```
(config-wg-peer)> no connect
Wireguard::Interface: "Wireguard0": disabled peer ►
"IrtvFcVtI5wcqxn4cCmuWc+p8s8byP0zK/MAI67VmXs=".
```

History

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

3.25.203.4 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 UDP server port.

Example

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

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

History

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

3.25.203.5 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.

3.25.203.6 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.

3.25.204 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.

3.25.205 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.

3.25.206 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.

3.25.207 interface wpa-eap radius server

Description Specify [RADIUS](#) server address.
Command with **no** prefix deletes the address.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Bridge

Synopsis

```
(config-if)> wpa-eap radius server <address> [:<port> ]
(config-if)> no wpa-eap radius server
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	RADIUS server IP address.
port	<i>Integer</i>	RADIUS server port.

Example

```
(config-if)> wpa-eap radius server 192.168.10.10
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server set to ►
192.168.10.10.
```

```
(config-if)> wpa-eap radius server 192.168.10.10:1111
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server set to ►
192.168.10.10:1111.
```

```
(config-if)> no wpa-eap radius server
Network::Interface::Rtx::WpaEap: Bridge0 RADIUS server cleared.
```

History

Version	Description
3.01	The interface wpa-eap radius server command has been introduced.

3.25.208 interface wps

Description Enable [WPS](#) functionality.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type WiFi

Synopsis`(config-if)> wps``(config-if)> no wps`**Example**

```
(config-if)> wps
WPS functionality enabled.
```

History

Version	Description
2.00	The interface wps command has been introduced.

3.25.209 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.

3.25.210 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 Sprinter.

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.

3.25.211 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.

3.25.212 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 Sprinter.

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.

3.25.213 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.

3.25.214 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.

3.25.215 interface zerotier connect

Description Set interface for [ZeroTier](#) connection. If you use no argument, connection is set via any interface.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type ZeroTier

Synopsis

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

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

Arguments

Argument	Value	Description
via	<i>Interface</i>	Full interface name or an alias.

Example

```
(config-if)> zerotier connect via ISP
ZeroTier::Interface: "ZeroTier0": set connection via ISP.
```

```
(config-if)> no zerotier connect
ZeroTier::Interface: "ZeroTier0": set connection via any ►
interface.
```

History

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

3.25.216 interface zerotier network-id

Description

Set identifier of *ZeroTier* tunnel.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

ZeroTier

Synopsis

```
(config-if)> zerotier network-id <network-id>
```

```
(config-if)> no zerotier network-id
```

Arguments

Argument	Value	Description
network-id	<i>String</i>	Tunnel ID.

Example

```
(config-if)> zerotier network-id 816227940c13c37e
ZeroTier::Interface: "ZeroTier0": set network ID to ►
"816227940c13c37e".
```

```
(config-if)> no zerotier network-id
ZeroTier::Interface: "ZeroTier0": reset network ID.
```

History

Version	Description
4.01	The interface zerotier network-id command has been introduced.

3.26 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 entries will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config)> ip arp <ip> <mac>
```

```
(config)> no ip arp [ <ip> ]
```

Arguments

Argument	Value	Description
ip	<i>IP address</i>	IP address in four-part dotted decimal format corresponding to the local data-link address.
mac	<i>MAC address</i>	MAC address as six groups of two hexadecimal digits separated by colons.

Example

```
(config)> ip arp 192.168.2.50 a1:2e:84:85:f4:21
Network::ArpTable: Static ARP entry saved.
```

```
(config)> no ip arp 192.168.2.50
Network::ArpTable: Static ARP entry deleted for 192.168.2.50.
```

```
(config)> no ip arp
Network::ArpTable: Static ARP table cleared.
```

History

Version	Description
2.00	The ip arp command has been introduced.

3.27 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.

3.27.1 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.

3.28 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.

3.29 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.

3.29.1 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.

3.29.2 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.

3.29.3 ip dhcp pool class

Description	Access to a group of commands to configure <i>DHCP</i> 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 <i>ip dhcp class</i> command. Command with no prefix removes selected class.								
Prefix no	Yes								
Change settings	Yes								
Multiple input	Yes								
Group entry	(config-dhcp-pool-class)								
Synopsis	<pre>(config-dhcp-pool)> class <class></pre> <pre>(config-dhcp-pool)> no class <class></pre>								
Arguments	<table><tr><th>Argument</th><th>Value</th><th>Description</th></tr><tr><td>class</td><td>String</td><td>The vendor-class name.</td></tr></table>			Argument	Value	Description	class	String	The vendor-class name.
Argument	Value	Description							
class	String	The vendor-class name.							
Example	<pre>(config-dhcp-pool)> class STB-One</pre> <pre>Dhcp::Server: Vendor class "STB-One" has been created.</pre>								
History	<table><tr><th>Version</th><th>Description</th></tr><tr><td>2.00</td><td>The ip dhcp pool class command has been introduced.</td></tr></table>			Version	Description	2.00	The ip dhcp pool class command has been introduced.		
Version	Description								
2.00	The ip dhcp pool class command has been introduced.								

3.29.3.1 ip dhcp pool class option

Description	Set additional options for <i>DHCP</i> client in case of vendor-class matching. Command with no prefix removes selected option.	
Prefix no	Yes	
Change settings	Yes	
Multiple input	Yes	
Synopsis	<pre>(config-dhcp-pool-class)> option <number> <type> <data> (config-dhcp-pool-class)> no option <number></pre>	

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.

3.29.4 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.

3.29.5 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.

3.29.6 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.

3.29.7 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.

3.29.8 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.

3.29.9 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.

3.29.10 ip dhcp pool next-server

Description

Set TFTP server address for DHCP client (option 66).

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

Prefix no

Yes

Change settings

Yes

Multiple input No

Interface type Ethernet

Synopsis

```
(config-dhcp-pool)> next-server <address>
```

```
(config-dhcp-pool)> no next-server
```

Arguments

Argument	Value	Description
address	IP address	TFTP server address.

Example

```
(config-dhcp-pool)> next-server 10.1.1.11  
Dhcp::Pool: "_WEBADMIN": set next server address: 10.1.1.11.
```

```
(config-dhcp-pool)> no next-server  
Dhcp::Pool: "_WEBADMIN": cleared next server address.
```

History

Version	Description
2.11	The ip dhcp pool next-server command has been introduced.

3.29.11 ip dhcp pool option

Description Set additional options for DHCP server.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type Ethernet

Synopsis

```
(config-dhcp-pool)> option <number> [ type ] <data>
```

```
(config-dhcp-pool)> no option <number>
```

Arguments

Argument	Value	Description
number	4	4 option, Time server. Type is IP address.
	6	6 option, DNS server. Type is IP address.
	42	42 option, NTP server. Type is IP address.
	44	44 option, NetBIOS server. Type is IP address.
	26	26 option, MTU. Can take values in the range from 0 to 65535 inclusively.

Argument	Value	Description
	121	121 option, Classless Static Routes. Type is IP address of the destination network and mask of the destination network the form of prefix bit length (for example, /24).
	249	249 option, Microsoft Classless Static Routes. Type is IP address of the destination network and mask of the destination network the form of prefix bit length (for example, /24).
type	hex	Hexadecimal number.
	ascii	ASCII number.
	ip	IP address. It is not applicable to 26 option. It is not specified as a keyword in the command.
data	<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.

3.29.12 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.

3.29.13 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.

3.29.14 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.

3.30 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.

3.31 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.

3.32 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.

3.33 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.

3.34 ip dhcp relay upstream server

Description Specify an upstream IP address of the [DHCP server](#), to which the relay will forward client requests.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type Ethernet

Synopsis

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

Arguments

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

Example

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

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

History

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

3.35 ip dhcp relay wan

Description Specify the network interface through which DHCP relay will interact with higher level [DHCP server](#). There can be only one interface of such type in the system. If exact address of the server is not specified (see [ip dhcp relay server](#)), the requests will be broadcasted. It is recommended to specify server address.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip dhcp relay wan <interface>
```

```
(config)> no ip dhcp relay wan [ interface ]
```

Arguments

Argument	Value	Description
interface	Interface	Full name or an alias of Ethernet interface, on which requests from the DHCP clients will be sent.

Example

```
(config)> ip dhcp relay wan GigabitEthernet1
using WAN interface GigabitEthernet1.
```

History

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

3.36 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.

3.37 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
```

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.
```

Version	Description
2.11	The ip flow-cache timeout active command has been introduced.

3.38 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
```

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.

3.39 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.

3.40 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.

3.41 ip host

Description Add a domain name and address as a DNS-record.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> ip host <domain> <address>
```

```
(config)> no ip host [ <domain> <address> ]
```

Arguments

Argument	Value	Description
domain	<i>String</i>	A domain name of a host.
address	<i>IP address</i>	An IP address of a host.

Example

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

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

History

Version	Description
2.00	The ip host command has been introduced.

3.42 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.

3.42.1 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.

3.42.2 ip hotspot auto-scan interface

Description

Enable subnetwork passive scanning on interface. By default is enabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config-hotspot)> auto-scan interface <interface>
```

```
(config-hotspot)> no auto-scan interface <interface>
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Full interface name or an alias.

Example

```
(config-hotspot)> auto-scan interface WifiMaster0/AccessPoint1  
Hotspot::Discovery::Manager: Subnetwork scanning on interface ►  
"WifiMaster0/AccessPoint1" is unchanged.
```

```
(config-hotspot)> auto-scan interface WifiMaster0/AccessPoint1  
Hotspot::Discovery::Manager: Subnetwork scanning on interface ►  
"WifiMaster0/AccessPoint1" is disabled.
```

History

Version	Description
2.08	The ip hotspot auto-scan interface command has been introduced.

3.42.3 ip hotspot auto-scan interval

Description Set interval for probes of online hosts. By default, the value 30 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-hotspot)> auto-scan interval <interval>
(config-hotspot)> no auto-scan interval
```

Arguments

Argument	Value	Description
interval	<i>Integer</i>	Auto-scan probe interval in seconds.

Example

```
(config-hotspot)> auto-scan interval 10
Hotspot::Discovery::Manager: Auto-scan probe interval is set to ►
10 s.
```

```
(config-hotspot)> no auto-scan interval
Hotspot::Discovery::Manager: Auto-scan probe interval reset to ►
default.
```

History

Version	Description
2.08	The ip hotspot auto-scan interval command has been introduced.

3.42.4 ip hotspot auto-scan passive

Description Set passive autoscan rate in hosts per seconds. By default, the value 3 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-hotspot)> auto-scan passive <rate> hps
```

```
(config-hotspot)> no auto-scan passive
```

Arguments

Argument	Value	Description
rate	<i>Integer</i>	Passive autoscan rate.

Example

```
(config-hotspot)> auto-scan passive 5 hps
Hotspot::Discovery::Manager: Auto-scan rate is set to 5 hps.
```

```
(config-hotspot)> no auto-scan passive
Hotspot::Discovery::Manager: Auto-scan rate reset to default.
```

History

Version	Description
2.08	The ip hotspot auto-scan passive command has been introduced.

3.42.5 ip hotspot auto-scan timeout

Description

Set offline timeout for hosts. After the specified time, the missing host is removed from the online host list. By default, the value 35 is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-hotspot)> auto-scan timeout <timeout>
```

```
(config-hotspot)> no auto-scan timeout
```

Arguments

Argument	Value	Description
timeout	<i>Integer</i>	Offline timeout in seconds.

Example

```
(config-hotspot)> auto-scan timeout 31
Hotspot::Discovery::Manager: Auto-scan host offline timeout is ►
set to 31 s.
```

```
(config-hotspot)> no auto-scan timeout
Hotspot::Discovery::Manager: Auto-scan host offline timeout reset ►
to default.
```

History

Version	Description
2.08	The ip hotspot auto-scan timeout command has been introduced.

3.42.6 ip hotspot default-policy

Description

Define the Hotspot policy for all interfaces or assign IP Policy. Policy applies to all hosts that have no explicitly configured access rule, [ip hotspot policy](#).

Default policy: permit.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config-hotspot)> default-policy (<access> | <policy>)
```

```
(config-hotspot)> no default-policy
```

Arguments

Argument	Value	Description
access	permit	Permit access to the internet.
	deny	Deny access to the internet.
policy	<i>Policy</i>	Name of IP Policy profile.

Example

```
(config-hotspot)> default-policy permit
Hotspot::Manager: Default policy "permit" applied.
```

```
(config-hotspot)> default-policy deny
Hotspot::Manager: Default policy "deny" applied.
```

```
(config-hotspot)> default-policy Policy0
Hotspot::Manager: Default policy "Policy0" applied.
```

```
(config-hotspot)> no default-policy
Hotspot::Manager: Default policy cleared.
```

History

Version	Description
2.09	The ip hotspot default-policy command has been introduced.
2.12	Argument policy was added.

3.42.7 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.

3.42.8 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	<i>MAC address</i>	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.

3.42.9 ip hotspot host priority

Description

Assign a specific priority to all traffic bound to a registered host. Registration of a host is performed in advance by the **known host** command.

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

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

Synopsis

```
(config-hotspot)> host <mac> priority <priority>
```

```
(config-hotspot)> no host <mac> priority
```

Arguments

Argument	Value	Description
mac	MAC address	Host MAC address.
priority	1	Top.
	2	Critical.
	3	High.
	4	Medium-high.
	5	Medium.
	6	Normal (Default).
	7	Low.

Example

```
(config-hotspot)> host 04:d2:c1:14:bc:59 priority 7
Hotspot::Manager: Applied priority "7" to host ►
"04:d2:c1:14:bc:59".
```

```
(config-hotspot)> no host 04:d2:c1:14:bc:59 priority
Hotspot::Manager: Removed priority from host "04:d2:c1:14:bc:59".
```

History

Version	Description
3.08	The ip hotspot host priority command has been introduced.

3.42.10 ip hotspot policy

Description Define the Hotspot policy for a specific interface. Policy applies to all hosts that have no explicitly configured access rule, [ip hotspot host](#).

Default policy: permit.

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

Prefix no Yes**Change settings** Yes

Multiple input Yes**Interface type** IP

Synopsis

```
(config-hotspot)> policy <interface> (<access> | <policy>)
```

```
(config-hotspot)> no policy <interface>
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Ethernet interface full name or an alias.
access	permit	Permit access to the internet.
	deny	Deny access to the internet.
policy	<i>Policy</i>	Name of IP Policy profile.

Example

```
(config-hotspot)> policy Home permit
Hotspot::Manager: Policy "permit" applied to interface "Home".
```

```
(config-hotspot)> policy Home deny
Hotspot::Manager: Policy "deny" applied to interface "Home".
```

```
(config-hotspot)> policy Home Policy0
Hotspot::Manager: Policy "Policy0" applied to interface "Home".
```

```
(config-hotspot)> no policy Home
Hotspot::Manager: Interface "Home" policy cleared.
```

History

Version	Description
2.06	The ip hotspot policy command has been introduced.
2.12	Argument policy was added.

3.42.11 ip hotspot priority

Description Assign a specific priority to all traffic bound to the interface.Command with **no** prefix removes the priority.**Prefix no** Yes**Change settings** Yes**Multiple input** Yes**Interface type** IP

Synopsis

```
(config-hotspot)> priority <interface> <priority>
```

```
(config-hotspot)> no priority <interface>
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Full interface name or an alias.
priority	1	Top.
	2	Critical.
	3	High.
	4	Medium-high.
	5	Medium.
	6	Normal (Default).
	7	Low.

Example

```
(config-hotspot)> priority Home 7
Hotspot::Manager: Applied priority "7" to interface "Home".
```

```
(config-hotspot)> no priority Home
Hotspot::Manager: Removed priority from interface "Home".
```

History

Version	Description
3.08	The ip hotspot priority command has been introduced.

3.42.12 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.

3.43 ip http lockdown-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 lockdown-policy <threshold> [ <duration> [ <observation-window> ]]
```

```
(config)> no ip http lockdown-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 lockdown-policy 10 30 2  
Http::Manager: Bruteforce detection is enabled.
```

```
(config)> no ip http lockdown-policy  
Http::Manager: Bruteforce detection is disabled.
```

```
(config)> ip http lockdown-policy 0  
Http::Manager: Bruteforce detection reset to default.
```

History

Version	Description
2.08	The ip http lockdown-policy command has been introduced.

3.44 ip http log access

Description Enable debug mode for web server (nginx). By default, feature is disabled.
Command with **no** prefix disables the debug mode.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip http log access
(config)> no ip http log access
```

Example

```
(config)> ip http log access
Http::Manager: Enabled access logging.

(config)> no ip http log access
Http::Manager: Disabled access logging.
```

History

Version	Description
3.00	The ip http log access command has been introduced.

3.45 ip http log auth

Description Enable logging of failed authorization attempts to the system. By default, feature is disabled.
Command with **no** prefix disables logging.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip http log auth
(config)> no ip http log auth
```

Example

```
(config)> ip http log auth
Http::Manager: Auth logging enabled.
```

```
(config)> no ip http log auth
Http::Manager: Auth logging disabled.
```

History

Version	Description
2.08	The ip http log auth command has been introduced.

3.46 ip http log webdav

Description Enable logging of failed connection attempts to the [WebDAV](#) server. By default, feature is disabled.

Command with **no** prefix disables logging.

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip http log webdav
(config)> no ip http log webdav
```

Example

```
(config)> ip http log webdav
WebDav::Server: Enabled request tracing.
```

```
(config)> no ip http log webdav
WebDav::Server: Disabled request tracing.
```

History

Version	Description
3.04	The ip http log webdav command has been introduced.

3.47 ip http port

Description Assign HTTP port for Web interface of Sprinter. 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.

3.48 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.

3.48.1 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.

3.48.2 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.

3.48.3 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.

3.48.4 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.

3.48.5 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.

3.48.6 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.

3.48.7 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	<pre>(config-http-proxy)> preserve-origin</pre> <pre>(config-http-proxy)> no preserve-origin</pre>				
Example	<pre>(config-http-proxy)> preserve-origin</pre> <pre>Http::Proxy: "test": enabled Origin header preservation.</pre> <pre>(config-http-proxy)> no preserve-origin</pre> <pre>Http::Proxy: "test": disabled Origin header preservation.</pre>				
History	<table border="1"> <thead> <tr> <th>Version</th><th>Description</th></tr> </thead> <tbody> <tr> <td>4.02</td><td>The ip http proxy preserve-origin command has been introduced.</td></tr> </tbody> </table>	Version	Description	4.02	The ip http proxy preserve-origin command has been introduced.
Version	Description				
4.02	The ip http proxy preserve-origin command has been introduced.				

3.48.8 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.

3.48.9 ip http proxy security-level

Description Set the security level for HTTP proxy service. By default, private value is set.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-http-proxy)> security-level (public | private)
```

```
(config-http-proxy)> no security-level
```

Arguments	Argument	Value	Description
	public	<i>Keyword</i>	Access to the HTTP proxy is allowed for public, private and protected interfaces.
	private	<i>Keyword</i>	Access to the HTTP proxy is allowed for private interfaces only.

Example

```
(config-http-proxy)> security-level public
Http::Proxy: "test1": set public security level.
```

```
(config-http-proxy)> no security-level
Http::Proxy: "test1": unset public security level.
```

History	Version	Description
	3.05	The ip http proxy security-level command has been introduced.

3.48.10 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.

3.48.11 ip http proxy timeout

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

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

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

Synopsis

```
(config-http-proxy)> timeout <timeout>
(config-http-proxy)> no timeout
```

Arguments

Argument	Value	Description
timeout	<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.
```


History

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

3.48.12 ip http proxy upstream

Description

Set HTTP or HTTPS server address for request redirecting.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-http-proxy)> upstream (http | https | connect) ( <mac> | <ip> | <fqdn> ) [ <port> ]
```

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

Arguments

Argument	Value	Description
http	<i>Keyword</i>	HTTP server.
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.

3.48.13 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.

3.49 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.

3.50 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.

3.51 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.

3.52 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.

3.53 ip http ssl acme revoke

Description Revoke and remove SSL certificate for the specified domain name (KeenDNS, by default).

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(config)> ip http ssl acme revoke <domain>
```

Arguments

Argument	Value	Description
domain	<i>String</i>	KeenDNS domain name.

Example

```
(config)> ip http ssl acme revoke mytest.keenetic.pro
Acme::Client: Revoking certificate for domain ►
"mytest.keenetic.pro" is started.
```

History

Version	Description
2.11	The ip http ssl acme revoke command has been introduced.

3.54 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.

3.55 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.

3.56 ip http ssl port

Description Assign HTTPS port for Web interface of Sprinter. 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.

3.57 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.

3.58 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.

3.59 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.

3.60 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.

3.61 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.

3.62 ip nat oc

Description Enable translation for *OpenConnect* clients.

Note: Command is available if the *OpenConnect* VPN server component is installed.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip nat oc
```

```
(config)> no ip nat oc
```

Example

```
(config)> ip nat oc
OcServer::Nat: OpenConnect VPN NAT enabled.
```

```
(config)> no ip nat oc
OcServer::Nat: OpenConnect VPN NAT disabled.
```

History

Version	Description
4.02	The ip nat oc command has been introduced.

3.63 ip nat restricted-cone

Description Enable mode *Restricted NAT*. By default, the mode is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config)> ip nat restricted-cone
```

```
(config)> no ip nat restricted-cone
```

Example

```
(config)> ip nat restricted-cone
Network::Nat: Restricted cone mode enabled.
```

```
(config)> no ip nat restricted-cone
Network::Nat: Restricted cone mode disabled.
```

History

Version	Description
3.01	The ip nat restricted-cone command has been introduced.

3.64 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.

3.65 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.

3.66 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.

3.66.1 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.

3.66.2 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.

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.

Argument	Value	Description
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:aeb5:100::/56 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.
```

History

Version	Description
4.03	The ip policy ipv6 route command has been introduced.

3.66.3 ip policy multipath

Description Enable the function of simultaneous use of WAN connections in the balancing mode.

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

Prefix no Yes

Change settings Yes

Multiple input No

Interface type IP

Synopsis

```
(config-policy)> multipath
(config-policy)> no multipath
```

Example

```
(config-policy)> multipath
Network::PolicyTable: "Policy0": enable multipath.
```



```
(config-policy)> no multipath
Network::PolicyTable: "Policy0": disable multipath.
```

History

Version	Description
2.14	The ip policy multipath command has been introduced.

3.66.4 ip policy permit

Description

Permit IP Policy for the global interface. If single IP Policy is permitted for multiple interfaces, you can specify a priority for each of them.

Command with **no** prefix denies the IP Policy for specified interface. If you use no arguments, IP Policy will be denied for the entire list of interfaces.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config-policy)> permit global <interface> [ order <order> ]
```

```
(config-policy)> no permit [ global <interface> ]
```

Arguments

Argument	Value	Description
interface	<i>Interface</i>	Full interface name or an alias.
order	<i>Integer</i>	The priority of global interface to which the IP Policy is permitted. Can take values in the range from 1 to 65534, but not more than the number of global interfaces.

Example

```
(config-policy)> permit global L2TP0 order 0
Network::PolicyTable: "Policy0": set permission to use L2TP0.
```

```
(config-policy)> no permit global L2TP0
Network::PolicyTable: "Policy0": set no permission to use L2TP0.
```

History

Version	Description
2.12	The ip policy permit command has been introduced.

3.66.5 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.

3.66.6 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.

3.66.7 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.

3.66.8 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.

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

Argument	Value	Description
		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)> 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.
```

History

Version	Description
4.03	The ip policy route command has been introduced.

3.66.9 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.

3.67 ip route

Description

Add a static route to the routing table to describe a rule of IP-packets transmission through a particular gateway or network interface.

As the destination network, one can specify default keyword. In this case, a default route will be created.

Command with **no** prefix removes the route with the specified parameters.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config)> ip route (<network> <mask> | <host> | default) (<gateway>
[<interface> | <interface>] [auto] [metric] [reject])
```

```
(config)> no ip route (<network> <mask> | <host> | default) [<gateway> |
<interface>] [metric]
```

Arguments

Argument	Value	Description
network	<i>IP address</i>	IP address of the destination network.
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

Argument	Value	Description
		that requires no additional addressing within the channel. If priority interface ip global is set on the interface, the route is added to the system table only if there is no other higher priority route with the same address.
gateway	<i>IP address</i>	IP address of the router in a directly connected network. Can be specified along with the interface name, if it is required to specify interface ip global priority. If no interface is specified, the systemd determines it automatically based on the current IP settings.
auto	<i>Keyword</i>	Allows you to apply the route when specified gateway becomes available.
metric	<i>Integer</i>	Route metrics. Ignored in the current implementation.
reject	<i>Keyword</i>	Enable route to use only the selected interface for routing the traffic to the specified destination. If the specified interface is not active, the traffic is not sent via other possible routes. This option works only when using the auto option and cannot be applied to the default route.

Example

```
(config)> ip route default Home
Network::RoutingTable: Added static route: 0.0.0.0/0 via Home.
```

```
(config)> ip route 123.123.123.123 Wireguard1 auto reject
Network::RoutingTable: Added static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config)> no ip route 123.123.123.123 Wireguard1
Network::RoutingTable: Deleted static route: 123.123.123.123/32 ►
via Wireguard1.
```

```
(config)> no ip route default
Network::RoutingTable: No such route: 0.0.0.0/0.
```

History

Version	Description
2.00	The ip route command has been introduced.
3.08	The reject option was added.

3.68 ip search-domain

Description Assign search domain to resolve hostnames that are not fully qualified.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip search-domain <domain>
(config)> no ip search-domain
```

Arguments

Argument	Value	Description
domain	<i>String</i>	The domain name to assign.

Example

```
(config)> ip search-domain my.example
```

```
(config)> no ip search-domain my.example
```

History

Version	Description
2.00	The ip search-domain command has been introduced.

3.69 ip sip alg direct-media

Description Replace IP address in Owner field of SDP. This feature is used to not configure port forwarding separately for VoIP traffic. By default, the setting is disabled.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ip sip alg direct-media
(config)> no ip sip alg direct-media
```

Example

```
(config)> ip sip alg direct-media
Sip::Alg: Direct media enabled.
```

```
(config)> no ip sip alg direct-media
Sip::Alg: Direct media disabled.
```


History

Version	Description
2.11	The ip sip alg direct-media command has been introduced.

3.70 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.

3.71 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.

3.71.1 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.

3.71.2 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.

3.71.3 ip ssh lockdown-policy

Description Set SSH brute-force detection parameters for public interfaces. By default, feature is enabled. If you use 0 as an argument, all brute-force detection parameters will be reset to default.

Command with **no** prefix disables brute-force 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: Brute-force detection is reconfigured.
```

```
(config-ssh)> no lockout-policy
Ssh::Manager: Brute-force detection is disabled.
```

```
(config-ssh)> lockout-policy 0
Ssh::Manager: Brute-force detection reset to default.
```

History

Version	Description
2.12	The ip ssh lockdown-policy command has been introduced.

3.71.4 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.

3.71.5 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.

Argument	Value	Description
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.

3.71.6 ip ssh session timeout

Description

Set the lifetime of inactive session for SSH connection. By default, 300 value is used, i.e. the function of activity tracking within a session is disabled.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config-ssh)> session timeout <timeout>
```

```
(config-ssh)> no session timeout
```

Arguments

Argument	Value	Description
timeout	<i>Integer</i>	The lifetime of inactive session. Can take values in the range from 5 to $2^{32}-1$ seconds inclusively.

Example

```
(config-ssh)> session timeout 123456
Ssh::Manager: A session timeout value set to 123456 seconds.
```

```
(config-ssh)> no session timeout
Ssh::Manager: A session timeout reset.
```

History

Version	Description
3.03	The ip ssh session timeout command has been introduced.

3.72 ip static

Description

Define translation rule for global and local IP addresses. If *interface* or *network* corresponds to the interface with [security level](#) public, then the destination address translation (DNAT) will occur. If *to-address* corresponds to the interface with [security level](#) public, then source address translation (SNAT) will occur. TCP/UDP port number is always treated as the destination port.

If *network* corresponds to a single address and this address is equal to *to-address*, then this rule will prohibit the translation of the specified address, which could have been done based on the specified rules [ip nat](#).

ip static rules have higher priority than the [ip nat](#) rules.

When using the translation rule, the router opens access to the specified port, so there is no need to make additional configuration of the firewall.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```
(config)> ip static [ <protocol> ] ( <interface> | ( <address> <mask> ) )
    ( <port> through <end-port> <to-address> | <to-host> |
    <to-interface> ) |
    <port> <to-address> | <to-host> | <to-interface> ) [ <to-port> ] |
    <to-address> | <to-host> | <to-interface> )

(config)> no ip static [ <protocol> ] ( <interface> | ( <address> <mask> ) )
    ( <port> through <end-port> <to-address> | <to-host> |
    <to-interface> ) |
    <port> <to-address> | <to-host> | <to-interface> ) [ <to-port> ] |
    <to-address> | <to-host> | <to-interface> )]
```

Arguments

Argument	Value	Description
protocol	tcp	TCP protocol.
	udp	UDP protocol.
	icmp	ICMP protocol.
	tcpudp	TCP and UDP protocols.
	gre	GRE protocol.
	ipip	IP in IP protocol.
interface	Interface	Input interface name (full name or alias).

Argument	Value	Description
comment	<i>String</i>	User's notes with symbol ! before them.
address	<i>IP address</i>	Along with mask <i>mask</i> sets the range of destination IP addresses that are to be translated.
mask	<i>IP-mask</i>	Translation range mask. There are two ways to enter the mask: the canonical form (for example, 255.255.255.0) and the form of prefix bit length (for example, /24).
port	<i>Integer</i>	TCP/UDP port number for which a translation request comes. If not specified, all incoming requests will be translated.
end-port	<i>Integer</i>	The end of the range of ports.
to-address	<i>IP address</i>	The destination address after translation.
to-host	<i>MAC address</i>	The destination MAC address after translation. Only MAC address from known hosts are accepted. If the known host is deleted, then the associated rules will be deleted too.
to-port	<i>Integer</i>	TCP/UDP port number after translation. If not specified, the destination port remains the same.
to-interface	<i>Interface</i>	Interface name after translation.

Example

Let there be a router between the “local” network 172.16.1.0/24 ([security level](#) private) and “global” network 10.0.0.0/16 ([security level](#) public). It is required that all requests coming to the “global” interface of this router on port 80 to be broadcast to the “local” server with the address 172.16.1.33. The sequence of commands to implement the required schema might look like this:

```
(config)> interface Home ip address 192.168.1.1/24
Network::Interface::Ip: "Bridge0": IP address is 192.168.1.1/24.
```

```
(config)> ip static tcp ISP 80 172.16.1.33 80
Network::StaticNat: Static NAT rule has been added.
```

```
(config)> ip static tcp ISP 21 00:0e:c6:a1:22:11 !test
Network::StaticNat: Static NAT rule is already there.
```

```
(config)> ip static disable
Network::StaticNat: Static NAT disable unchanged.
```

```
(config)> no ip static disable
Network::StaticNat: Static NAT rule enabled.
```

```
(config)> no ip static
Network::StaticNat: Static NAT rules have been removed.
```


History

Version	Description
2.00	The ip static command has been introduced.
2.06	The to-host argument has been added.

3.73 ip static rule

Description Disable IP address translation rule or set rule operation time by schedule.
Command with **no** prefix enables the rule or removes the rule schedule.

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> ip static rule <index> (disable | schedule <schedule>)
```

```
(config)> no ip static rule <index> (disable | schedule)
```

Arguments

Argument	Value	Description
index	<i>Integer</i>	The translation rule number.
disable	<i>Keyword</i>	Disable the translation rule.
schedule	<i>Schedule</i>	The name of the schedule that was created with schedule group of commands.

Example

```
(config)> ip static rule 0 schedule test_schedule
Network::StaticNat: Static NAT rule schedule applied.
```

```
(config)> ip static rule 0 disable
Network::StaticNat: Static NAT rule disabled.
```

```
(config)> no ip static rule 0 disable
Network::StaticNat: Static NAT rule enabled.
```

```
(config)> no ip static rule 0 schedule
Network::StaticNat: Static NAT rule schedule removed.
```

History

Version	Description
2.08	The ip static rule command has been introduced.

3.74 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.

3.74.1 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.

3.74.2 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.

3.74.3 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.

3.74.4 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.

3.74.5 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.

3.75 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.

3.76 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.

3.77 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.

3.78 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.

3.79 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.

3.80 ipv6 route

Description

Add a static route to the routing table to describe a rule of IPv6-packets transmission through a particular gateway or network interface.

As the destination network keyword `default` can be specified. In this case, a default route will be created.

Command with **no** prefix removes the route with the specified parameters.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(config)> ipv6 route ( <prefix> | default ) ( <interface> [ <gateway> ] | <gateway> )
```

```
(config)> no ipv6 route ( <prefix> | default ) ( <interface> [ <gateway> ] | <gateway> )
```

Arguments

Argument	Value	Description
prefix	<i>Prefix</i>	IPv6 prefix.
default	<i>Keyword</i>	Default prefix.
interface	<i>Interface</i>	Full interface name or an alias.
gateway	<i>IP address</i>	IP address of the router in a directly connected network.

Example

```
(config)> ipv6 route 2002:c100:aeb5::/48 ISP  
route added
```

```
(config)> no ipv6 route 2002:c100:aeb5::/48 ISP  
route erased
```

```
(config)> ipv6 route 2002:c100:aeb5:100::/56 2002:c100:aeb5::33  
route added
```

```
(config)> no ipv6 route 2002:c100:aeb5:100::/56 2002:c100:aeb5::33  
route erased
```

History

Version	Description
2.00	The ipv6 route command has been introduced.

2.11	gateway argument has been added.

3.81 ipv6 static

Description Define the rule to allow incoming connection to a specified port of a registered home network device.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> ipv6 static <protocol> (<interface> <mac> | <mac>) [ <port> [
through <end-port> ] ]
```

```
(config)> no ipv6 static [ <protocol> (<interface> <mac> | <mac>) [ <port> [
through <end-port> ] ] ]
```

Arguments

Argument	Value	Description
protocol	tcp	TCP protocol.
	udp	UDP protocol.
	tcpudp	TCP and UDP protocol.
	icmp6	ICMPv6 protocol.
interface	<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.
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.

3.82 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.

3.82.1 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.

3.82.2 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.

3.82.3 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.

3.82.4 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.

3.82.5 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.

3.82.6 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.

3.83 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.

3.84 kabinet

Description Access to a group of commands to configure KABiNET authenticator parameters.

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

Prefix no Yes**Change settings** Yes**Multiple input** No**Group entry** (kabinet)

Synopsis

```
(config)> kabinet
(config)> no kabinet
```

Example

```
(config)> kabinet
(kabinet)>

(config)> no kabinet
Kabinet::Authenticator: A configuration reset.
```

History

Version	Description
2.02	The kabinet command has been introduced.

3.84.1 kabinet access-level

Description Set an access level for KABiNET authenticator. By default, access level internet is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> access-level <level>
(kabinet)> no access-level
```

Arguments

Argument	Value	Description
level	lan	Access level value.
	internet	

Example

```
(kabinet)> access-level lan
Kabinet::Authenticator: An access level set to "lan".

(kabinet)> access-level internet
Kabinet::Authenticator: An access level set to "internet".

(kabinet)> no access-level
Kabinet::Authenticator: An access level reset to "internet".
```

History

Version	Description
2.02	The kabinet access-level command has been introduced.

3.84.2 kabinet interface

Description Bind KAbINET authenticator to the specified interface.

Command with **no** prefix unbinds interface.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> interface <interface>
(kabinet)> no interface
```

Arguments

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

Example

```
(kabinet)> interface [Tab]

Usage template:
    interface {interface}

Choose:
    GigabitEthernet1
    ISP
    WifiMaster0/AccessPoint2
    WifiMaster1/AccessPoint1
    WifiMaster0/AccessPoint3
    WifiMaster0/AccessPoint0
    AccessPoint
```

```
(kabinet)> interface ISP
Kabinet::Authenticator: Bound to GigabitEthernet1.
```

```
(kabinet)> no interface
Kabinet::Authenticator: Interface binding cleared.
```

History

Version	Description
2.02	The kabinet interface command has been introduced.

3.84.3 kabinet password

Description

Set a password for KAbiNET authenticator. By default, password is not set.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(kabinet)> password <password>
```

```
(kabinet)> no password
```

Arguments

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

Example

```
(kabinet)> password 123456789
Kabinet::Authenticator: A password set.
```

```
(kabinet)> no password
Kabinet::Authenticator: A password cleared.
```

History	Version	Description
	2.02	The kabinet password command has been introduced.

3.84.4 kabinet port

Description Set the server port for KABINET authenticator. By default, values 8314 or 8899 are used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> port <port>
(kabinet)> no port
```

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

Example

```
(kabinet)> port 12345
Kabinet::Authenticator: A server port set.
```

```
(kabinet)> no port
Kabinet::Authenticator: A server port reset.
```

History	Version	Description
	2.14	The kabinet port command has been introduced.

3.84.5 kabinet protocol-version

Description Set version of KABINET authenticator protocol. By default, protocol version 2 is used.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(kabinet)> protocol-version <version>
```

```
(kabinet)> no protocol-version
```

Arguments

Argument	Value	Description
version	<i>String</i>	Version of protocol.

Example

```
(kabinet)> protocol-version 1
Kabinet::Authenticator: A protocol version set to "1".
```

```
(kabinet)> no protocol-version
Kabinet::Authenticator: A protocol version reset to "2".
```

History

Version	Description
2.02	The kabinet protocol-version command has been introduced.

3.84.6 kabinet server

Description

Set an IP address of KAbINET authentication server. By default, IP 10.0.0.1 is used.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(kabinet)> server <address>
```

```
(kabinet)> no server
```

Arguments

Argument	Value	Description
address	<i>IP address</i>	Authentication server address.

Example

```
(kabinet)> server 77.222.111.1
Kabinet::Authenticator: A server address set.
```

```
(kabinet)> no server
Kabinet::Authenticator: A server address reset.
```

History

Version	Description
2.02	The kabinet server command has been introduced.

3.85 known host

Description Set known host.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config)> known host <name> <mac>
```

```
(config)> no known host [ mac ]
```

Arguments

Argument	Value	Description
name	<i>String</i>	Arbitrary host name.
mac	<i>MAC address</i>	MAC address.

Example

```
(config)> known host MY 00:0e:c6:a2:22:a1  
Core::KnownHosts: New host "MY" has been created.
```

```
(config)> no known host 00:0e:c6:a2:22:a1  
Core::KnownHosts: Host 00:0e:c6:a1:26:a8 has been removed.
```

History

Version	Description
2.00	The known host command has been introduced.

3.86 mws acquire

Description Attach new device to [MWS](#).

Command with **no** prefix stops the acquisition.

Prefix no Yes

Change settings No

Multiple input No

Synopsis

```
(config)> mws acquire <candidate> [eula-accept] [dpn-accept]  
[no-update]
```

```
(config)> no mws acquire <candidate>
```

Arguments

Argument	Value	Description
candidate	<i>String</i>	Device ID — MAC address or CID.

Argument	Value	Description
eula-accept	Keyword	Send eula accept command.
dpn-accept	Keyword	Send Device Privacy Notice accept.
no-update	Keyword	Acquisition without firmware update confirmation.

Example

```
(config)> mws acquire ab1409a2-0f87-11e8-8f23-3d5f5921b253 ►
eula-accept
Mws::Controller: Candidate "ab1409a2-0f87-11e8-8f23-3d5f5921b253" ►
acquire started.
```

```
(config)> mws acquire 7207838e-af7d-11e6-8029-25463bd03811 ►
eula-accept dpn-accept no-update
Mws::Controller: Candidate "7207838e-af7d-11e6-8029-25463bd03811" ►
acquire started.
```

```
(config)> no mws acquire 60:31:97:3f:36:00
Mws::Controller: Candidate "60:31:97:3f:36:00" acquire stopped.
```

History

Version	Description
2.15	The mws acquire command has been introduced.

3.87 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.

3.88 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.

3.89 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.

3.90 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.

3.91 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.

3.92 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.

3.93 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.
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.

3.94 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	<pre>(config)> mws member <member> port <port> disable</pre> <pre>(config)> mws member <member> port <port> no disable</pre>

Arguments	Argument	Value	Description
	member	<i>String</i>	Device ID — MAC address or CID.
	port	<i>Integer</i>	The LAN port number.

Example	<pre>(config)> mws member 21:f3:20:43:5c:bf port 3 disable</pre> Mws::Controller::Manager: "21:f3:20:43:5c:bf": port "3" has been ► set to "down".
	<pre>(config)> mws member 21:f3:20:43:5c:bf port 3 no disable</pre> 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.

3.95 mws member reboot

Description	Reboot the MWS member. The process of rebooting extenders should be displayed in the show mws member command output.
Prefix no	No
Change settings	No
Multiple input	No

Synopsis

```
(config)> mws member <member> reboot [ <interval> ]
```

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.

3.96 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.

3.97 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.

3.98 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.

3.99 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.

3.100 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.

3.101 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.

3.102 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.

3.103 mws update start

DescriptionStart 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.

3.104 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.

3.105 mws zone

Description Limit the connection area of the client device within the specified [MWS](#) members.

Command with **no** prefix removes the specified setting. If you use no arguments, the entire list of restrictions will be removed.

Prefix no Yes

Change settings No

Multiple input Yes

Synopsis

```
(config)> mws zone <mac> <cid>

(config)> no mws zone [ <mac> <cid> ]
```

Arguments

Argument	Value	Description
mac	<i>MAC address</i>	MAC address of client device. It must be listed as a known host.
cid	<i>CID</i>	Identifier of <i>MWS</i> member.

Example

```
(config)> mws zone 11:22:33:ec:58:e2 ►
12298f60-d886-11e7-9396-176971eeb8d6
Mws::Controller: Added zone 11:22:33:ec:58:e2 ►
12298f60-d886-11e7-9396-176971eeb8d6.
```

```
(config)> no mws zone 11:22:33:ec:58:e2 ►
12298f60-d886-11e7-9396-176971eeb8d6
Mws::Controller: Deleted zone 11:22:33:ec:58:e2 ►
12298f60-d886-11e7-9396-176971eeb8d6.
```

```
(config)> no mws zone
Mws::Controller: Cleared all zones.
```

History

Version	Description
3.06	The mws zone command has been introduced.

3.106 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.

3.106.1 nextdns assign

Description Assign profile of protection to the host. By default System profile is used for all hosts and local network segments.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(nextdns)> assign <host> <token> | interface <iface> <token>
(nextdns)> no assign [<host> | interface <iface>]
```

Arguments

Argument	Value	Description
host	<i>MAC address</i>	MAC address to assign.
token	<i>Integer</i>	Authentication token (ID).
iface	<i>Interface</i>	Full interface name or an alias.

Example

```
(nextdns)> assign 11:24:c4:54:bc:59 1f2a36
NextDns::Client: Reassociated host "11:24:c4:54:bc:59" with ►
profile "1f2a36".
```

```
(nextdns)> assign interface Home 1f2a36
NextDns::Client: Associated interface "Home" with profile ►
"1f2a36".
```

```
(nextdns)> no assign 11:24:c4:54:bc:59
NextDns::Client: Removed profile for host "11:24:c4:54:bc:59".
```

```
(nextdns)> no assign Bridge0
NextDns::Client: Removed profile for interface "Bridge0".
```

History

Version	Description
3.08	The nextdns assign command has been introduced.

3.106.2 nextdns authenticate

Description Specify login for *NextDNS* account.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(nextdns)> authenticate <login> <password> [ <pin> ]
```

```
(nextdns)> no authenticate
```

Arguments

Argument	Value	Description
login	<i>String</i>	Login to <i>NextDNS</i> account.
password	<i>String</i>	Password to <i>NextDNS</i> account.
pin	<i>String</i>	Pin to <i>NextDNS</i> account.

Example

```
(nextdns)> authenticate account@gmail.com 123456789 1234
NextDns::Client: Authenticated successfully.
```

History

Version	Description
3.08	The nextdns authenticate command has been introduced.

3.106.3 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.

3.106.4 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.

3.107 ndns

Description Access to a group of commands to manage KeenDNS service.

Prefix no No

Change settings No

Multiple input No

Group entry (ndns)

Synopsis

```
(config)> ndns
```

Example

```
(config)> ndns
Core::Configurator: Done.
```

History

Version	Description
2.07	The ndns command has been introduced.

3.107.1 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 Sprinter.
	direct	Hostname is registered on the Sprinter 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.

3.107.2 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.name
    name: testname
    available: yes
    acme: yes

  item:
    domain: keenetic.pro
    name: testname
    available: no
    acme: yes

Ndns::Client: Check completed.
```

History

Version	Description
2.07	The ndns check-name command has been introduced.

3.107.3 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.

3.107.4 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.

3.107.5 ndns get-update

Description Update Public DNS device hostname allocation on the server.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(ndns)> get-update [ <access> [ -ipv6 <access6> ] ]
```

Arguments

Argument	Value	Description
access	auto	Automatic access type.
	cloud	Hostname is registered on the cloud server IP address, HTTP traffic is tunneled to the Sprinter.
	direct	Hostname is registered on the Sprinter WAN-address. This command allows to enable support for the Static NAT (NAT 1-1) on the server side in the KeenDNS account parameters.
access6	cloud	Enable cloud mode for IPv6 address.

Example

```
(ndns)> get-update auto

done, layout = view, title = ►
NDSS::ndns/updateBooking (Update Name Booking Address and ►
Expiration):
    client, geo = *, 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 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.

(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.
```

History

Version	Description
2.07	The ndns get-update command has been introduced.
2.14	Parameter ipv6 was added.

3.108 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	<code>(config)> ntce</code>

Example

```
(config)> ntce
(config-ntce)>
```

History	Version	Description
	3.07	The ntce command has been introduced.

3.108.1 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	<code>(config-ntce)> debug</code> <code>(config-ntce)> no debug</code>

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.

3.108.2 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.

3.108.3 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.

3.108.4 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.

3.108.5 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.

3.108.6 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.

3.108.7 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.

3.108.8 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 <i>schedule</i> 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.

3.108.9 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.

3.108.10 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.

3.108.11 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.

3.108.12 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.

3.108.13 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.

3.108.14 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.

3.109 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.

3.110 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.

3.111 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.

3.112 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.

3.113 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.

3.114 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>
```

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.
```

Version	Description
4.03	The object-group fqdn command has been introduced.

3.114.1 object-group fqdn 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-fqdn)> exclude <address>
```

```
(config-ogrp-fqdn)> no exclude <address>
```

Argument	Value	Description
address	<i>FQDN</i>	IP address or domain name.

Example

```
(config-ogrp-ip)> exclude 8.8.8.8  
Network::ObjectGroup: "test": added exclude tcpudp 1.2.3.0/24 ►  
70-80.
```

```
(config-ogrp-ip)> no exclude 8.8.8.8  
Network::ObjectGroup: "TEST": removed excluded FQDN "8.8.8.8".
```

History

Version	Description
4.03	The object-group fqdn exclude command has been introduced.

3.114.2 object-group fqdn 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-fqdn)> include <address>
```

```
(config-ogrp-fqdn)> no include <address>
```

Arguments

Argument	Value	Description
address	<i>FQDN</i>	IP address or domain name.

Example

```
(config-ogrp-fqdn)> include google.com  
Network::ObjectGroup: "TEST": added included FQDN "google.com".
```

```
(config-ogrp-fqdn)> no include google.com  
Network::ObjectGroup: "TEST": removed included FQDN "google.com".
```

History

Version	Description
4.03	The object-group fqdn include command has been introduced.

3.115 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

Argument	Value	Description
	gre	GRE protocol.
	ipip	IP in IP 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.

3.115.2 object-group ip include

Description Add or remove matching element of the object group.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-ogrp-ip)> include <proto> <address> [ <port> [<end-port>]]
```

```
(config-ogrp-ip)> no include <proto> <address> [ <port> [<end-port>]]
```

Arguments

Argument	Value	Description
proto	ip	IP protocol (include TCP , UDP , ICMP and other).
	tcp	TCP protocol.
	udp	UDP protocol.
	tcpudp	TCP and UDP protocols.

Argument	Value	Description
	icmp	ICMP protocol.
	esp	ESP protocol.
	gre	GRE protocol.
	ipip	IP in IP 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.

3.116 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.

3.116.1 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.

3.116.2 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.

3.116.3 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.

3.116.4 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.

3.116.5 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.

3.116.6 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.

3.116.7 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.

Argument	Value	Description
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.

3.116.8 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.

3.116.9 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.

3.116.10 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.

3.117 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>	Ping Check profile name. You can see the list of available profiles with help of ping-check profile [Tab] command.

Example

```
(config)> ping-check profile [Tab]
```

```
Usage template:
    profile {name}
```

```
Choose:
    TEST
    MYMY
```

```
(config)> ping-check profile new_prof
PingCheck::Client: Profile "new_prof" has been created.
(config-pchk)>
```

```
(config)> no ping-check profile new_prof
PingCheck::Client: Profile "new_prof" has been deleted.
```


History	Version	Description
	2.04	The ping-check profile command has been introduced.

3.117.1 ping-check profile host

Description Assign hostname for testing. By default, hostname is assigned according to country code.

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-pchk)> host <host>
(config-pchk)> no host [ <host> ]
```

Arguments	Argument	Value	Description
	host	Hostname	Name or address of remote host.

Example

```
(config-pchk)> host 8.8.8.8
PingCheck::Profile: "test": add host "8.8.8.8" for testing.

(config-pchk)> host 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.

3.117.2 ping-check profile max-fails

Description Specify the number of consecutive failed requests to a remote host by obtaining of which the Internet at the interface considered absent. By default, value 5 is used.

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

Prefix no Yes

Change settings Yes

Multiple input

No

Synopsis`(config-pchk)> max-fails <count>``(config-pchk)> no max-fails`**Arguments**

Argument	Value	Description
count	<i>Integer</i>	Amount of failed requests. Can take values in the range from 1 to 10 inclusively.

Example

```
(config-pchk)> max-fails 7
PingCheck::Profile: "test": uses 7 fail count for disabling ►
interface.
```

```
(config-pchk)> no max-fails
PingCheck::Profile: "test": fail count is reset to 5.
```

History

Version	Description
2.04	The ping-check profile max-fails command has been introduced.

3.117.3 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.

3.117.4 ping-check profile mode

Description Set [Ping Check](#) mode. By default, icmp value is used.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(config-pchk)> mode <mode>`

Arguments

Argument	Value	Description
mode	icmp	The availability testing of remote host will be done by ICMP-echo request (ping) sending.
	connect	The availability testing of remote host will be done by TCP-connection establishing to specified port.
	tls	The availability testing of remote host will be done by TLS-connection.
	uri	The availability testing of remote host will be done by URI checking.

Example

```
(config-pchk)> mode tls
PingCheck::Profile: "test": uses tls mode.
```

History

Version	Description
2.04	The ping-check profile mode command has been introduced.
3.09	The tls argument was added.
4.00	The uri argument was added.

3.117.5 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.

3.117.6 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.

3.117.7 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.

3.117.8 ping-check profile uri

Description

Assign URI ([Uniform Resource Identifier](https://en.wikipedia.org/wiki/Uniform_Resource_Identifier)¹⁷) host for testing.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

¹⁷ https://en.wikipedia.org/wiki/Uniform_Resource_Identifier

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.

3.118 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

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.

3.119 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.

3.120 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>
```

Argument	Value	Description
name	<i>String</i>	A schedule name.

Version	Description
2.06	The schedule command has been introduced.

3.120.1 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> ]
```

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.

Argument	Value	Description
dow	<i>Integer</i>	Days of the week, separated by commas. 0 and 7 mean Sunday. * means daily.

Example

```
(config-sched)> action start 0 9 1,2,3,4,5
Core::Schedule::Manager: Updated schedule "WIFI".
```

History

Version	Description
2.06	The schedule action command has been introduced.

3.120.2 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.

3.120.3 schedule led

Description

Set LED indication for the scheduled events. SelectedSchedule control should be chosen with **system led** command.

Command with **no** prefix removes LED indication.

Prefix no

Yes

Change settings Yes**Multiple input** No

Synopsis

```
(config-sched)> led <action>
```

```
(config-sched)> no led
```

Arguments

Argument	Value	Description
action	start	LED shows the beginning of the scheduled event.
	stop	LED shows the end of the scheduled event.

Example

```
(config-sched)> led start
Core::Schedule::Led: Selected schedule "111".
```

History

Version	Description
2.08	The schedule led command has been introduced.

3.121 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.

3.122 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	<pre>(config)> service dhcp-relay</pre> <pre>(config)> no service dhcp-relay</pre>				
Example	<pre>(config)> service dhcp-relay</pre> service enabled.				
History	<table> <tr> <th>Version</th><th>Description</th></tr> <tr> <td>2.00</td><td>The service dhcp-relay command has been introduced.</td></tr> </table>	Version	Description	2.00	The service dhcp-relay command has been introduced.
Version	Description				
2.00	The service dhcp-relay command has been introduced.				

3.123 service dns-proxy

Description	Enable DNS-proxy. To configure the parameters of the service, use Section 3.17 on page 107 group of commands.				
Prefix no	No				
Change settings	Yes				
Multiple input	No				
Synopsis	<pre>(config)> service dns-proxy</pre>				
Example	<pre>(config)> service dns-proxy</pre> Dns::Manager: DNS proxy enabled.				
History	<table> <tr> <th>Version</th><th>Description</th></tr> <tr> <td>2.00</td><td>The service dns-proxy command has been introduced.</td></tr> </table>	Version	Description	2.00	The service dns-proxy command has been introduced.
Version	Description				
2.00	The service dns-proxy command has been introduced.				

3.124 service http

Description Enable HTTP server that provides the user with Web-interface to configure Sprinter.

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.

3.125 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.

3.126 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.

3.127 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.

3.128 service kabinet

Description Enable KAbINET authenticator service. By default it is disabled.

Command with **no** prefix stops the service.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config)> service kabinet
(config)> no service kabinet
```

Example

```
(config)> service kabinet
Kabinet::Authenticator: Authenticator enabled.
```

```
(config)> no service kabinet
Kabinet::Authenticator: Authenticator disabled.
```

History

Version	Description
2.02	The service kabinet command has been introduced.

3.129 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.

3.130 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 .

3.131 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 .

3.132 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.

3.133 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.

3.134 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.

3.135 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.

3.136 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.

3.137 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.

3.138 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.

3.139 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.

3.140 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.

3.140.1 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.

3.140.2 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.

3.140.3 show button

Description Show information about specified system button. If you use no argument, the entire list of all buttons on the device will be displayed. Available buttons depend on hardware configuration.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **button** [*<name>*]

Arguments

Argument	Value	Description
name	<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

```

History

Version	Description
2.00	The show button command has been introduced.

3.140.4 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.

3.140.5 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.

3.140.6 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.

3.140.7 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.

3.140.8 show clock timezone-list

Description Show the list of available timezones.

Prefix no No

Change settings	No
Multiple input	No
Synopsis	<code>(show)> clock timezone-list</code>

Example	<pre>(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 </pre>

History	<table> <tr> <th>Version</th><th>Description</th></tr> <tr> <td>2.00</td><td>The show clock timezone-list command has been introduced.</td></tr> </table>	Version	Description	2.00	The show clock timezone-list command has been introduced.
Version	Description				
2.00	The show clock timezone-list command has been introduced.				

3.140.9 show components status

Description	Display components updates status.
Prefix no	No
Change settings	No
Multiple input	No
Synopsis	<code>(show)> component status</code>

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.

3.140.10 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.

3.140.11 show credits**Description**

Show the license information about specified installed package in KeeneticOS. If you use no argument, the entire list of all installed packages on the device will be displayed.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> credits [ package ]
```

Arguments

Argument	Value	Description
package	<i>String</i>	Package name.

Example

```
(show)> credits

package:
  name: accel-ppp
  title: High performance accel-ppp VPN server
  homepage: https://accel-ppp.org/

package:
  name: accel-ppp-l2tp
  title: L2TP plugin for accel-ppp
  homepage: https://accel-ppp.org/

package:
  name: accel-ppp-pptp
  title: PPTP plugin for accel-ppp
  homepage: https://accel-ppp.org/

package:
  name: accel-ppp-sstp
  title: SSTP plugin for accel-ppp
  homepage: https://accel-ppp.org/

package:
  name: avahi-daemon
  title: An mDNS/DNS-SD implementation (daemon)
  homepage: http://www.avahi.org/

package:
  name: coova-chilli
```

```

        title: Wireless LAN HotSpot controller (Coova ►
Chilli Version)
        homepage: http://www.coova.org/CoovaChilli

        package:
            name: crconf
            title: Netlink-based CryptoAPI userspace ►
management utility
            homepage:

        package:
            name: dhcpv6
            title: DHCPv6 client + server
            homepage: http://wide-dhcpv6.sourceforge.net/

        package:
            name: dropbear
            title: Small SSH2 client/server
            homepage: http://matt.ucc.asn.au/dropbear/

        package:
            name: iperf3-ssl
            title: Internet Protocol bandwidth measuring ►
tool with iperf_auth support
            homepage: https://github.com/esnet/iperf

        package:
            name: kernel
            title: Linux kernel
            homepage: http://www.kernel.org/

        package:
            name: kmod-ipt-account
            title: ACCOUNT netfilter module
            homepage:

        package:
            name: kmod-ipt-chaos
            title: CHAOS netfilter module
            homepage:

        package:
            name: kmod-ipt-compat-xtables
            title: API compatibilty layer netfilter module
            homepage:

        package:
            name: kmod-ipt-condition
            title: Condition netfilter module
            homepage:

        package:
            name: kmod-ipt-delude
            title: DELUDE netfilter module

```



```
homepage:

package:
  name: kmod-ipt-dhcpmac
  title: DHCPMAC netfilter module
homepage:

package:
  name: kmod-ipt-dnetmap
  title: DNETMAP netfilter module
homepage:

package:
  name: kmod-ipt-fuzzy
  title: fuzzy netfilter module
homepage:

package:
  name: kmod-ipt-geoip
  title: geoip netfilter module
homepage:

package:
  name: kmod-ipt-iface
  title: iface netfilter module
homepage:

package:
  name: kmod-ipt-ipmark
  title: IPMARK netfilter module
homepage:

package:
  name: kmod-ipt-ipp2p
  title: IPP2P netfilter module
homepage:

package:
  name: kmod-ipt-ipv4options
  title: ipv4options netfilter module
homepage:

package:
  name: kmod-ipt-length2
  title: length2 netfilter module
homepage:

package:
  name: kmod-ipt-logmark
  title: LOGMARK netfilter module
homepage:

package:
  name: kmod-ipt-lscan
```

```

        title: lscan netfilter module
        homepage:

package:
    name: kmod-ipt-netflow
    title: Netflow netfilter module for Linux kernel
    homepage: http://ipt-netflow.sourceforge.net/

package:
    name: kmod-ipt-psd
    title: psd netfilter module
    homepage:

package:
    name: kmod-ipt-quota2
    title: quota2 netfilter module
    homepage:

package:
    name: kmod-ipt-sysrq
    title: SYSRQ netfilter module
    homepage:

package:
    name: kmod-ipt-tarpit
    title: TARPIT netfilter module
    homepage:

package:
    name: kmod-nf-nathelper-rtsp
    title: RTSP Conntrack and NAT helpers
    homepage: https://github.com/maru-sama/rtsp-linux

package:
    name: kmod-wireguard
    title: WireGuard kernel module
    homepage:

package:
    name: libattr
    title: Extended attributes (xattr) manipulation ▶
library    homepage: http://savannah.nongnu.org/projects/attr

package:
    name: libav
    title: This package contains Libav library
    homepage: https://libav.org/

package:
    name: libavahi
    title: An mDNS/DNS-SD implementation (No D-Bus)
    homepage: http://www.avahi.org/

```

```

package:
  name: libcurl
  title: A client-side URL transfer library
  homepage: http://curl.haxx.se/

package:
  name: libdaemon
  title: A lightweight C library that eases the ▶
writing of UNIX daemons
  homepage: ▶
http://0pointer.de/lennart/projects/libdaemon/

package:
  name: libdb47
  title: Berkeley DB library (4.7)
  homepage: http://www.sleepycat.com/products/db.shtml

package:
  name: libevent
  title: Event notification library
  homepage: http://www.monkey.org/~provos/libevent/

package:
  name: libexif
  title: Library for JPEG files with EXIF tags
  homepage: https://libexif.github.io

package:
  name: libexpat
  title: An XML parsing library
  homepage: https://libexpat.github.io/

package:
  name: libgcrypt
  title: GNU crypto library
  homepage: ▶
http://directory.fsf.org/security/libgcrypt.html

package:
  name: libgpg-error
  title: GnuPG error handling helper library
  homepage: ▶
http://www.gnupg.org/related_software/libgpg-error/

package:
  name: libid3tag
  title: An ID3 tag manipulation library
  homepage: https://www.underbit.com/products/mad/

package:
  name: libjpeg
  title: The Independent JPEG Group's JPEG runtime ▶
library
  homepage: http://www.ijg.org/

```

```

package:
  name: liblzo
  title: A real-time data compression library
  homepage: http://www.oberhumer.com/opensource/lzo/

package:
  name: libnghttp2
  title: Library implementing the framing layer ▶
of HTTP/2
  homepage: https://nghttp2.org/

package:
  name: libopenssl
  title: Open source SSL toolkit (libraries ▶
(libcrypto.so, libssl.so))
  homepage: http://www.openssl.org/

package:
  name: libpcap
  title: Low-level packet capture library
  homepage: http://www.tcpdump.org/

package:
  name: libtommath
  title: A free number theoretic multiple-precision ▶
integer library
  homepage: https://www.libtom.net/

package:
  name: libusb
  title: A library for accessing Linux USB devices
  homepage: http://libusb.info/

package:
  name: mini_snmpd
  title: Lightweight SNMP daemon
  homepage: http://troglobit.github.io/mini-snmpd.html

package:
  name: minidlna
  title: UPnP A/V & DLNA Media Server
  homepage: http://minidlna.sourceforge.net/

package:
  name: miniupnpd
  title: Lightweight UPnP daemon
  homepage: http://miniupnp.tuxfamily.org/

package:
  name: netatalk
  title: netatalk
  homepage: http://netatalk.sourceforge.net

```

```

package:
    name: nginx
    title: Nginx web server
    homepage: http://nginx.org/

package:
    name: nginx-stream-module
    title: Nginx stream module
    homepage:

package:
    name: openvpn
    title: Open source VPN solution using OpenSSL
    homepage: http://openvpn.net

package:
    name: pjproject
    title: PJSIP
    homepage: http://www.pjsip.org/

package:
    name: pureftpd
    title: FTP server
    homepage: http://www.pureftpd.org

package:
    name: radvd
    title: Router advertisement daemon
    homepage: http://www.litech.org/radvd/

package:
    name: sstp-client
    title: SSTP client for Linux
    homepage: http://sstp-client.sourceforge.net/

package:
    name: strongswan
    title: Strongswan IKEv1/IKEv2 ISAKMP and IPsec ▶
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.

3.140.12 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.

3.140.13 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.

3.140.14 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-1012
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.

3.140.15 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

Med.Resp  Avg.Resp  Ip      Port  R.Sent  A.Rcvd  NX.Rcvd  ►
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: dns
  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.

3.140.16 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.

3.140.17 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.

3.140.18 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
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las "Partes" y, de forma individual, como una "Parte".

History

Version	Description
3.05	The show dpn document command has been introduced.

3.140.19 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.

3.140.20 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.

3.140.21 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.

3.140.22 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.

3.140.23 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.

3.140.24 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.
language	<i>String</i>	The language of EULA . If not specified, the English version is shown.

Example

```

(show)> eula document 20181001
20181001
KEENETIC LIMITED

```

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```
(show)> eula document 20181001 ru
20181001
```

KEENETIC LIMITED
Лицензионное соглашение с конечным пользователем

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History

Version	Description
2.15	The show eula document command has been introduced.

3.140.25 show eula list

Description	Show the list of EULA available in the system.
Prefix no	No
Change settings	No
Multiple input	No
Synopsis	<pre>(show)> eula list</pre>

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.

3.140.26 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.

3.140.27 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.

Element	Value
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.

3.140.28 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.

3.140.29 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.
vht-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.

3.140.30 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.

3.140.31 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.

3.140.32 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	Interface	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.

3.140.33 show interface name-server

Description Show a list of current addresses of DNS resolvers used on the interface.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **interface** *<name>* **name-server**

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface.

Example

```
(show)> interface WifiMaster1/WifiStation0 name-server
```

```
server:
  address: 1.1.1.1
  port: 0
  domain:
  global: 0
  service: Dns::Manager
interface:

server:
  address: 9.9.9.9
  port: 0
  domain:
  global: 0
  service: Dns::Manager
interface:

server:
  address: 8.8.8.8
  port: 0
  domain:
  global: 0
  service: Dns::Manager
interface:

server:
  address: 192.168.133.1
```



```

    port: 0
    domain:
    global: 65318
    service: WifiMaster1/WifiStation0 DHCP client
    interface: WifiMaster1/WifiStation0

```

```

server-tls:
    address: 8.8.8.8
    port: 0
    sni: dns.google
    spki:
    interface:
    domain:

```

History

Version	Description
3.09	The show interface name-server command has been introduced.

3.140.34 show interface rf e2p

Description Show the current contents of all calibration data cells.

Prefix no No

Change settings No

Multiple input No

Interface type Radio

Synopsis (show)> **interface** *<name>* **rf e2p**

Arguments

Argument	Value	Description
name	<i>Interface</i>	Full name or an alias of the interface to display.

Example

```

(show)> interface WifiMaster0 rf e2p

[0x0000]:5392 [0x0002]:0103 [0x0004]:43EC [0x0006]:04F6
[0x0008]:042B [0x000A]:5392 [0x000C]:1814 [0x000E]:8001
[0x0010]:0000 [0x0012]:5392 [0x0014]:1814 [0x0016]:0000
[0x0018]:0001 [0x001A]:FF6A [0x001C]:0213 [0x001E]:FFFF
[0x0020]:FFFF [0x0022]:FFC1 [0x0024]:9201 [0x0026]:FFFF
[0x0028]:43EC [0x002A]:04F6 [0x002C]:052B [0x002E]:FFFF
[0x0030]:758E [0x0032]:4301 [0x0034]:FF22 [0x0036]:0025
[0x0038]:FFFF [0x003A]:012D [0x003C]:FFFF [0x003E]:FAD9
[0x0040]:88CC [0x0042]:FFFF [0x0044]:FF0A [0x0046]:0000
[0x0048]:0000 [0x004A]:0000 [0x004C]:0000 [0x004E]:FFFF
[0x0050]:FFFF [0x0052]:1111 [0x0054]:1111 [0x0056]:1111

```

```

[0x0058]:1011 [0x005A]:1010 [0x005C]:1010 [0x005E]:1010
[0x0060]:1111 [0x0062]:1211 [0x0064]:1212 [0x0066]:1312
[0x0068]:1313 [0x006A]:1413 [0x006C]:1414 [0x006E]:2264
[0x0070]:00F1 [0x0072]:1133 [0x0074]:0000 [0x0076]:FC62
[0x01E8]:FFFF [0x01EA]:FFFF [0x01EC]:FFFF [0x01EE]:FFFF
[0x01F0]:FFFF [0x01F2]:FFFF [0x01F4]:FFFF [0x01F6]:FFFF
[0x01F8]:FFFF [0x01FA]:FFFF [0x01FC]:FFFF [0x01FE]:FFFF
.....

```

History

Version	Description
2.04	The show interface rf e2p command has been introduced.

3.140.35 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.

3.140.36 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.

3.140.37 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.

3.140.38 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.

3.140.39 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.

Element	Value
auto-self-pin	Auto-self-pin mode state.
status	disabled enabled active
direction	send receive
mode	pbcc 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.

3.140.40 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.

3.140.41 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.

3.140.42 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.

3.140.43 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.

3.140.44 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.

3.140.45 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.

3.140.46 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	<i>MAC address</i>	MAC address of registered host.
attribute	rxspeed	Data rate type.
	txspeed	
	rxbytes	
	txbytes	
detail	0	Level of detail is 1 second.

Argument	Value	Description
	1	Level of detail is 2 seconds.
	2	Level of detail is 3 seconds.
	3	Level of detail is 5 seconds.
	4	Level of detail is 15 seconds.
	5	Level of detail is 30 seconds.
	6	Level of detail is 1 minute.
	7	Level of detail is 2 minutes.
	8	Level of detail is 3 minutes.
	9	Level of detail is 5 minutes.
	10	Level of detail is 15 minutes.
	11	Level of detail is 30 minutes.

Example

```
(show)> ip hotspot a8:1e:84:85:f2:11 rrd rxspeed
```

```
data:
  t: 2180.491855
  v: 16298
```

```
data:
  t: 2177.492050
  v: 9026
```

```
data:
  t: 2174.491916
  v: 11450
```

```
data:
  t: 2171.491843
  v: 626
```

```
(show)> ip hotspot a8:1e:84:85:f2:11 rrd txspeed
```

```
data:
  t: 2228.491841
  v: 952
```

```
data:
```

```
t: 2225.491920
v: 8813
```

```
data:
t: 2222.492053
v: 28746
```

```
data:
t: 2219.491845
v: 22474
```

```
(show)> ip hotspot a8:1e:84:85:f2:11 rrd rxbytes
```

```
data:
t: 2279.491860
v: 4197
```

```
data:
t: 2276.492050
v: 362
```

```
data:
t: 2273.492040
v: 14337
```

```
data:
t: 2270.491862
v: 3281
```

```
(show)> ip hotspot a8:1e:84:85:f2:11 rrd txbytes
```

```
data:
t: 2360.491865
v: 3342
```

```
data:
t: 2357.491853
v: 142
```

```
data:
t: 2354.491949
v: 3333
```

```
data:
t: 2351.491847
v: 3390
```

History

Version	Description
2.14	The show ip hotspot rrd command has been introduced.

3.140.47 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.

3.140.48 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.

3.140.49 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.

3.140.50 show ip nat

Description Show network address translation table.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ip nat [tcp]**

Arguments

Argument	Value	Description
tcp	<i>Keyword</i>	Only the records with <i>TCP</i> type will be displayed.

Example

```

(show)> ip nat
=====
Type | In | 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.

3.140.51 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.

3.140.52 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: fffffffd00
    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: fffffffd03
        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: fffffffd00
        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.

3.140.53 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 U 0	0.0.0.0	Wireguard7	►
162.159.192.1/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
172.16.85.0/24 U 0	0.0.0.0	Wireguard1	►
176.124.212.86/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
188.114.96.0/22 U 0	0.0.0.0	Wireguard7	►
192.168.1.0/24 U 0	192.168.15.88	Home	►
192.168.15.0/24 U 0	0.0.0.0	Home	►
192.168.17.0/24 U 0	0.0.0.0	Bridge2	►
192.168.133.0/24 U 0	0.0.0.0	WifiMaster1/WifiStation0	►
192.168.220.0/24 U 0	0.0.0.0	Wireguard1	►
194.71.130.15/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►

(show)> **ip route sort interface ascending**

Destination F Metric	Gateway	Interface	►
192.168.1.0/24 U 0	192.168.15.88	Home	►
192.168.15.0/24 U 0	0.0.0.0	Home	►
10.1.30.0/24 U 0	0.0.0.0	Guest	►
192.168.17.0/24 U 0	0.0.0.0	Bridge2	►
0.0.0.0/0 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      0.0.0.0      Wireguard3      ►
  U 0
8.8.8.8/32      0.0.0.0      Wireguard7      ►
  U 0
13.32.99.0/24   0.0.0.0      Wireguard7      ►
  U 0
108.157.4.0/24  0.0.0.0      Wireguard7      ►
  U 0
188.114.96.0/22 0.0.0.0      Wireguard7      ►
  U 0

```

```
(show)> ip route sort interface descending
```

Destination F Metric	Gateway	Interface	
188.114.96.0/22 U 0	0.0.0.0	Wireguard7	►
108.157.4.0/24 U 0	0.0.0.0	Wireguard7	►
13.32.99.0/24 U 0	0.0.0.0	Wireguard7	►
8.8.8.8/32 U 0	0.0.0.0	Wireguard7	►
10.8.0.0/24 U 0	0.0.0.0	Wireguard3	►
192.168.220.0/24 U 0	0.0.0.0	Wireguard1	►
172.16.85.0/24 U 0	0.0.0.0	Wireguard1	►
1.1.1.1/32 U 0	0.0.0.0	Wireguard1	►
194.71.130.15/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
192.168.133.0/24 U 0	0.0.0.0	WifiMaster1/WifiStation0	►
176.124.212.86/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
162.159.192.1/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
85.1.112.11/32 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
0.0.0.0/0 U 0	192.168.133.1	WifiMaster1/WifiStation0	►
192.168.17.0/24 U 0	0.0.0.0	Bridge2	►
10.1.30.0/24 U 0	0.0.0.0	Guest	►
192.168.15.0/24 U 0	0.0.0.0	Home	►
192.168.1.0/24 U 0	192.168.15.88	Home	►

History

Version	Description
2.00	The show ip route command has been introduced.

3.140.54 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.

3.140.55 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.

3.140.56 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.

3.140.57 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.

3.140.58 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.

3.140.59 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 .

3.140.60 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.

3.140.61 show kabinet status

Description Check for the status and configuration of KAbiNET authenticator.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **kabinet status**

Example

```
(show)> kabinet status

kabinet:
  enabled: yes
  wan: yes
  state: STOPPED
  server: 10.0.0.1
  access-level: internet
  protocol-version: 2
```

History

Version	Description
2.02	The show kabinet status command has been introduced.

3.140.62 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.

3.140.63 show led

Description Show information about specified LED in the system. If you use no argument, the entire list of all LEDs on the device will be displayed. Available LEDs depend on hardware configuration.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **led** [<name>]

Arguments

Argument	Value	Description
name	SYS	The LED name. The number of available indicators depends on the selected device.
	FN	
	FW_UPD	
	ACT_ACK	
	WAN	
	DSL	
	WLAN	
	WLAN5	
	WPS_1	
	WPS_2	
	WPS_3	
	WPS_4	
	WPS5_1	
	WPS5_2	
	WPS5_3	
	WPS5_4	
	USB_1	
	USB_2	
	LTE	

Example

```
(show)> led FN_1

      leds:
        led, index = 0:
          name: FN_1
        user_configurable: yes
        virtual: no
```

History

Version	Description
2.05	The show led command has been introduced.

3.140.64 show led bindings

Description

Show the control associated with the specified LED. If you use no argument, the entire list of all LEDs with theirs controls will be displayed.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(show)> led [ <name> ]bindings
```

Arguments

Argument	Value	Description
name	SYS	The LED name. Set of available indicators depends on the selected device.
	FN	
	FW_UPD	
	ACT_ACK	
	WAN	
	DSL	
	WLAN	
	WLAN5	
	WPS_1	
	WPS_2	
	WPS_3	
	WPS_4	
	WPS5_1	
	WPS5_2	
	WPS5_3	
	WPS5_4	
	USB_1	

Argument	Value	Description
	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.

3.140.65 show led controls

Description Show a list of LED controls in the system. Available controls depend on hardware configuration.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **led controls**

Example (show)> **led controls**

```

controls:
  control, index = 0:
    name: SystemState
  short_description: System state
    owner: ndm
  user_configurable: no

  control, index = 1:
    name: ButtonActivityAcknowledgement
  short_description: Button activity acknowledgement
    owner: ndm
  user_configurable: no

  control, index = 2:
    name: SelectedSchedule
  short_description: Selected schedule is active
    owner: ndm
  user_configurable: yes

  control, index = 3:
    name: SelectedWan
  short_description: Selected WAN interface has default ►

```

```

route
    owner: ndm
    user_configurable: yes

    control, index = 4:
        name: BackupWan
    short_description: Backup WAN interface has default route
    owner: ndm
    user_configurable: yes

    control, index = 5:
        name: WanConnected
    short_description: WAN interface connected
    owner: ndm
    user_configurable: no

    control, index = 6:
        name: Usb1PortDeviceAttached
    short_description: USB port 1 known device attached
    owner: ndm
    user_configurable: yes

    control, index = 7:
        name: Usb2PortDeviceAttached
    short_description: USB port 2 known device attached
    owner: ndm
    user_configurable: yes

    control, index = 8:
        name: UpdatesAvailable
    short_description: Firmware updates available
    owner: ndm
    user_configurable: yes

    control, index = 9:
        name: OpkgLedControl
    short_description: OPKG LED control
    owner: ndm
    user_configurable: yes

    control, index = 10:
        name: Wlan5Activity
    short_description: WLAN 5GHz interface activity
    owner: mt7615_ap
    user_configurable: no

    control, index = 11:
        name: Wlan5Wps1Activity
    short_description: WLAN 5GHz SSID 1 WPS activity
    owner: mt7615_ap
    user_configurable: no

    control, index = 12:
        name: Wlan5Wps2Activity

```



```

short_description: WLAN 5GHz SSID 2 WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 13:
        name: Wlan5Wps3Activity
short_description: WLAN 5GHz SSID 3 WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 14:
        name: Wlan5Wps4Activity
short_description: WLAN 5GHz SSID 4 WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 15:
        name: WlanActivity
short_description: WLAN 2.4GHz interface activity
    owner: mt7615_ap
user_configurable: no

    control, index = 16:
        name: WlanWps1Activity
short_description: WLAN 2.4GHz SSID 1 WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 17:
        name: WlanWps2Activity
short_description: WLAN 2.4GHz SSID 2 WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 18:
        name: WlanWps3Activity
short_description: WLAN 2.4GHz SSID 3 WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 19:
        name: WlanWps4Activity
short_description: WLAN 2.4GHz SSID 4 WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 20:
        name: Wsta5WpsActivity
short_description: Station 5GHz WPS activity
    owner: mt7615_ap
user_configurable: no

    control, index = 21:
        name: WstaWpsActivity

```

```

short_description: Station 2.4GHz WPS activity
owner: mt7615_ap
user_configurable: no

```

History

Version	Description
2.08	The show led controls command has been introduced.

3.140.66 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.

3.140.67 show mws associations

Description Show the list of Access Points on the repeater(s) associated with [MWS](#) controller.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **mws associations**

Example (show)> **mws associations**

```

station:
    mac: 51:ef:22:11:17:1a
    ap: WifiMaster1/Backhaul0
authenticated: yes
txrate: 585
rxrate: 270
uptime: 31
txbytes: 33569
rxbytes: 74324
ht: 80
mode: 11ac
gi: 800
rssi: -27
mcs: 7
txss: 2
ebf: yes
mu: yes

```

History	Version	Description
	3.01	The show mws associations command has been introduced.

3.140.68 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: Hopper (KN-3811)
    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: Hopper (KN-3811)
    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.

3.140.69 show mws log

Description Show log of connections and transitions from one Access Point to another within *MWS*. The command executes in the background, that is, until forced to stop by the user pressing [Ctrl]+[C].

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **mws log** [*<max-lines>*] [**once**]

Arguments	Argument	Value	Description
	max-lines	<i>Integer</i>	Limit of entries in the response.
	once	<i>Keyword</i>	Show recent entries in the log.

Example

```

(show)> mws log 1

```

Time	Message
[Jan 17 15:04:58]	: 64:a2:f9:51:b1:82: associated -> ► 50:ff:20:00:11:82 (5 GHz)

```

(show)> mws log once

```

Time	Message
[Jan 17 14:46:37]	: 64:a2:f9:51:b1:82: associated -> ► 50:ff:20:00:11:82 (5 GHz)

```
[Jan 17 15:04:50] : 64:a2:f9:51:b1:82: 50:ff:20:00:11:82 (5 ▶
GHz) -> disassociated
[Jan 17 15:04:58] : 64:a2:f9:51:b1:82: associated -> ▶
50:ff:20:00:11:82 (5 GHz)
```

History

Version	Description
2.15	The show mws log command has been introduced.

3.140.70 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 40f829b8-71a8-11ec-9396-5fb681ed4743

member:
    cid: 40f829b8-71a8-11ec-9396-5fb681ed4743
    model: Speedster (KN-3310)
    mac: 50:ff:21:69:21:7d
    known-host: Keenetic Hopper 116***591
    ip: 192.168.15.42
    mode: extender
    hw-type: router
    license: 116232491843591
    fqdn: 1fb1227d6b44e5863f46cb5a.keenetic.io
fqdn-certificate-valid: yes
    fw: 3.8 Beta 2
fw-available: 3.8.2
    region: EU
associations: 0
    rebooting: yes

capabilities:
    mode-hw: no
    dual-band: yes
auto-ap-shutdown: yes
    wpa3: yes
    owe: yes
```

```

        wind: yes
        wpa-eap: no
        acme: yes
        auth-token: yes
        backhaul-bss: yes
        sta-mask: yes
        country-code: yes
        notify: yes

        system:
        cpuload: 2
        memory: 97592/262144
        uptime: 567

        backhaul:
        uplink: GigabitEthernet0/Vlan1
        bridge: 8000.50:ff:21:69:21:7d
        cost: 5
        speed: 1000
        duplex: full

        rci:
        errors: 0

```

History

Version	Description
2.15	The show mws member command has been introduced.

3.140.71 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	<pre> (show)> ndns name: test booked: test domain: keenetic.pro address: 0.0.0.0 address6: :: updated: yes access: cloud access6: cloud </pre>

```

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.

3.140.72 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.

3.140.73 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.

3.140.74 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.

3.140.75 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.

3.140.76 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 Hosters.

        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.

3.140.77 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.

3.140.78 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.

3.140.79 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.

3.140.80 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.

3.140.81 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.

3.140.82 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

    conntack:
        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.

3.140.83 show ntp status

Description Show *NTP* system settings.

NTP state general info

- ❶ The time elapsed since the last synchronization in seconds.
- ❷ The indicator of the last synchronization.
- ❸ The indicator of the initial synchronization.
- ❹ Time is taken from NDSS server.
- ❺ Time is set by the user manually.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **ntp status**

Example (show)> **ntp status**

```

status:
  elapsed: 435146 ❶
  server: 1.pool.ntp.org

```

```

    accurate: yes ❷
    synchronized: yes ❸
    ndsstime: no ❹
    usertime: no ❺

```

History

Version	Description
2.00	The show ntp status command has been introduced.

3.140.84 show oc-server

Description Show current connections to the [OpenConnect](#) server.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **oc-server**

Example

```

(show)> oc-server

    ndns-name: mywrk.keenetic.link
        fqdn: 12af.mywrk.keenetic.link
        secret: 123e45ed
has-ndns-certificate: yes

    tunnel:
    clientaddress: 172.16.3.34
        username: mymy
        uptime: 30

    statistic:
        rxpackets: 121
    rx-multicast-packets: 0
    rx-broadcast-packets: 0
        rxbytes: 14715
        rxerrors: 0
        rxdropped: 0
        txpackets: 78
    tx-multicast-packets: 0
    tx-broadcast-packets: 0
        txbytes: 48265
        txerrors: 0
        txdropped: 0
        timestamp: 104530.202229
        last-overflow: 0.000000

```

History

Version	Description
4.02	The show oc-server command has been introduced.

3.140.85 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.

3.140.86 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.

3.140.87 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	<pre>(show)> running-config</pre>
Example	<pre>(show)> running-config ! \$\$\$ Model: Keenetic Hopper ! \$\$\$ Version: 2.06.1</pre>

```

! $$$ Agent: default
! $$$ 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/MCVxzNY0H
    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.

3.140.88 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	<i>String</i>	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.

3.140.89 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.

3.140.90 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.

3.140.91 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.

3.140.92 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.

3.140.93 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.

3.140.94 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.

3.140.95 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.

3.140.96 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.

3.140.97 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.

3.140.98 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.

3.140.99 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.

3.140.100 show upnp redirect

Description Show *UPnP* port translation rules. If you use no arguments, the entire list of translation rules will be displayed.

Prefix no No

Change settings No

Multiple input No

Interface type IP

Synopsis `(show)> upnp redirect [( <protocol> <interface> <port> ) | <index> ]`

Arguments

Argument	Value	Description
protocol	tcp	Rules with <i>TCP</i> protocol will be displayed.
	udp	Rules with <i>UDP</i> protocol will be displayed.
interface	<i>Interface</i>	Rules with specified interface name will be displayed.
port	<i>Integer</i>	Rules with specified port will be displayed.
index	<i>Integer</i>	Rule with specified number in the list will be displayed.

Example

```
(show)> upnp redirect udp ISP 11175

entry:
  index: 1
  interface: ISP
  protocol: udp
  port: 11175
  to-address: 192.168.15.206
  to-port: 11175
  description: Skype UDP at 192.168.12.286:11175 (2024)
  packets: 0
  bytes: 0
```

History

Version	Description
2.00	The show upnp redirect command has been introduced.

3.140.101 show version

Description Show firmware version.

Prefix no No

Change settings No

Multiple input No

Synopsis (show)> **version**

Example (show)> **version**

```

release: 2.10.C.1.0-0
arch: mips

ndm:
  exact: 0-d32118a
  cdate: 11 Dec 2017

bsp:
  exact: 0-cbe0525
  cdate: 11 Dec 2017

ndw:
  version: 4.2.3.92
  features: ►
wifi_button,flexible_menu,emulate_firmware_progress
  components: ►
ddns,dot1x,interface-extras,miniupnpd,nathelper-ftp,
  ►
nathelper-pptp,nathelper-sip,ppe,trafficcontrol,
  ►
cloudcontrol,base,components,corewireless,dhcpd,l2tp,
  ►
igmp,easyconfig,pingcheck,ppp,pptp,pppoe,ydns

manufacturer: Keenetic Ltd.
vendor: Keenetic
series: KN
model: Start (KN-1110)
hw_version: 10118000
hw_id: KN-1110
device: Start
class: Internet Center

```

History

Version	Description
2.00	The show version command has been introduced.

3.140.102 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.

3.141 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.

3.142 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.

3.143 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.

3.144 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.

3.145 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.

3.146 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.

3.147 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.

3.147.1 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.

3.147.2 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.

3.147.3 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.

3.147.4 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.

3.147.5 sstp-server interface

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)> interface <interface>
(sstp-server)> no interface
```

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

Example (sstp-server)> **interface** [Tab]

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

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

```
(sstp-server)> interface Bridge0
SstpServer::Manager: Bound to Bridge0.
```

History	Version	Description
	2.12	The sstp-server interface command has been introduced.

3.147.6 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.

3.147.7 sstp-server lcp echo

Description Specify the testing rules of the SSTP-connections with *LCP* echo tools.

Command with **no** prefix disables *LCP* echo.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(sstp-server)>  lcp echo <interval> <count> [adaptive]
(sstp-server)> no lcp echo
```

Arguments

Argument	Value	Description
interval	<i>Integer</i>	Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply.

Argument	Value	Description
count	<i>Integer</i>	The number of consecutive requests <i>LCP</i> echo sent, for which no response <i>LCP</i> reply was received. If count of <i>LCP</i> echo requests goes unanswered, the connection is terminated.
adaptive	<i>Keyword</i>	Pppd will send LCP echo-request frames only if no traffic was received from the peer since the last echo-request was sent.

Example

```
(sstp-server)> lcp echo 5 3
SstpServer::Manager: LCP echo parameters updated.
```

History

Version	Description
2.12	The sstp-server lcp echo command has been introduced.

3.147.8 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.

3.147.9 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.

3.147.10 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.

3.147.11 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.

3.147.12 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.

3.147.13 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.

3.147.14 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.

3.147.15 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.

3.148 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.

3.148.1 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.
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).

Argument	Value	Description
	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.

3.148.2 system caption

Description Set the Web interface title and header for ease of navigation.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(system)> caption <template>`

Arguments

Argument	Value	Description
template	default	Combination of Brand and Model (for example, Keenetic Speedster).
	product	The Model name (for example, Speedster).
	description	The System description (for example, Speedster (KN-3010)).
	hwid	The Model identifier (for example, KN-3010).
	hostname	The System name (for example, Keenetic-Speedster).
	ndns-domain	The KeenDNS name (for example, mywork.keenetic.name).
	default-ssid	The Default Wi-Fi name (for example, Keenetic-8665).

Example

```
(system)> caption product
Core::System::Caption: Template set to product.
```

History

Version	Description
3.08	The system caption command has been introduced.

3.148.3 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.

3.148.4 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.

3.148.5 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.

3.148.6 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.

3.148.7 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.

3.148.8 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.

3.148.9 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.

3.148.10 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.

3.148.11 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 ¹⁸ .

Example

```
(system)> country EN
Core::System::Country: Set the system country code to "EN".
```

```
(system)> no country
Core::System::Country: Reset the system country code.
```

History

Version	Description
4.00	The system country command has been introduced.

3.148.12 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

¹⁸ https://en.wikipedia.org/wiki/ISO_3166-1_alpha-2

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.

3.148.13 system description

Description

Set the system description as an arbitrary string. By default, description Sprinter (KN-3710) 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.
```

```
(config)> show version
...
  manufacturer: Keenetic Ltd.
    vendor: Keenetic
    series: KN
    model: Ultra (KN-1810)
  hw_version: 10188000
    hw_id: KN-1810
  device: Ultra
    class: Internet Center
    region: RU
  description: DEVICE
```

```
(config)> show running-config
...
```

```

set vm.swappiness 60
set vm.overcommit_memory 0
set vm.vfs_cache_pressure 1000
set dev.usb.force_usb2 0
domainname WORKGROUP
hostname Keenetic_Ultra
description DEVICE
...

```

```

(system)> no description
Core::System::Info: Description reset to default.

```

```

(config)> show version
...
    manufacturer: Keenetic Ltd.
      vendor: Keenetic
      series: KN
      model: Ultra (KN-1810)
    hw_version: 10188000
      hw_id: KN-1810
      device: Ultra
      class: Internet Center
      region: RU
    description: Keenetic Ultra (KN-1810)

```

History

Version	Description
2.15	The system description command has been introduced.

3.148.14 system domainname

Description Assign domain name for the system.

Command with **no** prefix removes domain name.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```

(system)> domainname <domain>

(system)> no domainname

```

Arguments

Argument	Value	Description
domain	<i>String</i>	The domain name to assign.

Example

```

(system)> domainname keenetic
Domainname saved.

```

History	Version	Description
	2.00	The system domainname command has been introduced.

3.148.15 system hostname

Description Set the host name. Host name used to identify a node in the network. It is required to enable some of the built-in services, such as CIFS.

Command with **no** prefix sets the default value, which depends on the model name.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(system)>  hostname <hostname>
(system)> no hostname
```

Arguments	Argument	Value	Description
	hostname	<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.
```

History	Version	Description
	2.00	The system hostname command has been introduced.

3.148.16 system led

Description Configure general purpose LEDs. By default, LED FN shows the updates for your device are available.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(system)> led <led> indicate <control>
```

```
(system)> no led [ <led> [ indicate] ]
```

Arguments

Argument	Value	Description
led	FN	LED name.
control	UpdatesAvailable	LED notifies you the updates for your device are available.
	BackupWan	LED shows that backup connection is active at the moment.
	SelectedWan	LED shows status of the interface defined with interface led wan command.
	SelectedSchedule	LED shows status of scheduled event assigned with schedule led command.
indicate	<i>Keyword</i>	Turn off the indicator completely.

Example

```
(system)> led FN indicate SelectedWan
Peripheral::Manager: "SelectedWan" control bound to "FN" LED.
```

```
(system)> no led FN indicate
Peripheral::Manager: "FN" LED control binding removed.
```

History

Version	Description
2.08	The system led command has been introduced.

3.148.17 system led power schedule

Description

Assign a schedule for the LEDs on the device. Schedule must be created and customized with [schedule action](#) command before execution.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(system)> led power schedule <schedule>
```

```
(system)> no led power schedule
```

Arguments

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

Example

```
(system)> led power schedule schedule1
Core::Peripheral::Manager: Set LED power schedule "schedule1".
```

```
(system)> no led power schedule
Core::Peripheral::Manager: Clear LED power schedule.
```

History

Version	Description
3.06	The system led power schedule command has been introduced.

3.148.18 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 .

3.148.19 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.

3.148.20 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.

3.148.21 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.

3.148.22 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.

3.148.23 system mode

Description Select system operating mode for Sprinter.

Prefix no No

Change settings Yes

Multiple input No

Synopsis `(system)> mode <mode>`

Arguments

Argument	Value	Description
mode	router	Main mode.
	client	Network adapter mode to connect Ethernet devices to Wi-Fi network.
	repeater	Repeater mode to extend Wi-Fi network using a wireless connection.
	ap	Access point mode to extend Wi-Fi network using a wired Ethernet connection.

Example

```
(system)> mode repeater
Core::Mode: The system switched to "repeater" mode, reboot the ►
device to apply the settings.
```

History

Version	Description
2.05	The system mode command has been introduced.

3.148.24 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 .

3.148.25 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.

3.148.26 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.

3.148.27 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 100000000 inclusively. The threshold value is not saved into startup-config.

Example

```
(system)> system trace lock threshold 100
Lockable: Set threshold to 100 ms.
```

```
(system)> no trace lock threshold
Lockable: Reset threshold.
```

History

Version	Description
3.03	The system trace lock threshold command has been introduced.

3.149 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.

3.149.1 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.

3.149.2 tools ping

Description

Send Echo-Request requests of ICMP protocol to specified network node and register received Echo Reply responses. The time between sending request and receiving the response Round Trip Time (RTT) allows you to define double ended delays on the route and frequency of packet losses, that is, indirectly determine loading on the channels of data transmission and intermediate devices.

Total absence of ICMP Replies can also mean that the remote node (or any of the intermediate routers) blocks ICMP Echo Reply or ignores ICMP Echo Request.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(tools)> ping <host> [ count <count> ] [ packetsize <packetsize> ] [
sequence-id <sequence-id> ] [ source ( <source-interface> |
<source-address> ) ] [ tos <tos> ] [ ttl <ttl> ]
```

Arguments

Argument	Value	Description
host	<i>String</i>	Domain name or host IP address.
count	<i>Integer</i>	Quantity of ICMP Echo Requests. If not specified, the command will run until interrupted by the user.
packetsize	<i>Integer</i>	Size of the ICMP Echo Request data field in bytes. By default, 56 value is used. Can take values in the range from 28 to 65535 inclusively.
sequence-id	<i>Integer</i>	Sequence number to aid in matching Echo Request and Echo Reply. By default, 0 value is used. Can take values in the range from 0 to 65535 inclusively.
source	source-address	Address of the outgoing interface.
	source-interface	Interface to be used as the source interface in outgoing probe packets.

Argument	Value	Description
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.

3.149.3 tools ping6

Description

Send Echo-Request requests of ICMPv6 protocol to specified network node and register received Echo Reply responses. The time between sending request and receiving the response Round Trip Time (RTT) allows you to define double ended delays on the route and frequency of packet losses, that is, indirectly determine loading on the channels of data transmission and intermediate devices.

Total absence of ICMP Replies can also mean that the remote node (or any of the intermediate routers) blocks ICMP Echo Reply or ignores ICMP Echo Request.

Prefix no

No

Change settings

No

Multiple input

No

Synopsis

```
(tools)> ping6 <host> [ count <count> ] [ packetsize <packetsize> ] [
sequence-id <sequence-id> ] [ source ( <source-interface> |
<source-address> ) ] [ tos <tos> ] [ ttl <ttl> ]
```

Arguments

Argument	Value	Description
host	<i>String</i>	Domain name or host IPv6-address.
count	<i>Integer</i>	Quantity of ICMPv6 Echo Requests. If not specified, the command will run until interrupted by the user.
packetsize	<i>Integer</i>	Size of the ICMPv6 Echo Request data field in bytes. By default, 56 value is used. Can take values in the range from 28 to 65535 inclusively.
sequence-id	<i>Integer</i>	Sequence number to aid in matching Echo Request and Echo Reply. By default, 0 value is used. Can take values in the range from 0 to 65535 inclusively.
source	source-address	Address of the outgoing interface.
	source-interface	Interface to be used as the source interface in outgoing probe packets.
tos	<i>Integer</i>	Type Of Service. By default, 0 value is used. Can take values in the range from 0 to 63 inclusively.
ttl	<i>Integer</i>	Maximum number of hops (max time-to-live value) traceroute will probe. By default, 30 value is used. Can take values in the range from 1 to 255 inclusively.

Example

```
(tools)> ping6 2001:4860:4860::8888 count 5 size 111
sending ICMPv6 ECHO request to 2001:4860:4860::8888...
PING 2001:4860:4860::8888 (2001:4860:4860::8888) 63 (111) bytes ►
of data.
71 bytes from 2001:4860:4860::8888: icmp_req=1, ttl=108, ►
time=19.84 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=2, ttl=108, ►
time=19.73 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=3, ttl=108, ►
time=19.96 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=4, ttl=108, ►
time=19.86 ms.
71 bytes from 2001:4860:4860::8888: icmp_req=5, ttl=108, ►
time=19.76 ms.
--- 2001:4860:4860::8888 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss,
0 duplicate(s), time 4021.21 ms.
Round-trip min/avg/max = 19.73/19.83/19.96 ms.
```

```
(tools)> ping6 2001:4860:4860::8888 source ISP
sending ICMPv6 ECHO request to 2001:4860:4860::8888...
PING 2001:4860:4860::8888 (2001:4860:4860::8888) from eth3: 56 ►
(104) bytes of data.
64 bytes from 2001:4860:4860::8888: icmp_req=1, ttl=108, ►
time=19.90 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=2, ttl=108, ►
time=19.75 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=3, ttl=108, ►
time=19.64 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=4, ttl=108, ►
time=19.66 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=5, ttl=108, ►
time=19.88 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=6, ttl=108, ►
time=19.72 ms.
64 bytes from 2001:4860:4860::8888: icmp_req=7, ttl=108, ►
time=19.71 ms.
--- 2001:4860:4860::8888 ping statistics ---
7 packets transmitted, 7 packets received, 0% packet loss,
0 duplicate(s), time 6221.53 ms.
Round-trip min/avg/max = 19.64/19.75/19.90 ms.
```

History

Version	Description
2.00	The tools ping6 command has been introduced.
4.01	New values address and interface were added to the source argument.

3.149.4 tools traceroute**Description**

Show the route to a network host.

Prefix no No

Change settings No

Multiple input No

Synopsis

```
(tools)> traceroute <host> [ count <count> ] [ interval <interval> ]
      [ wait-time <wait-time> ] [ packet-size <packet-size> ]
      [ max-ttl <max-ttl> ] [ port <port> ] [ source-address
<source-address> ]
      [ source-interface <source-interface> ] [ type <type> ] [ tos <tos>
]
```

Arguments

Argument	Value	Description
host	<i>String</i>	Name of the target host.
count	<i>Integer</i>	Number of probe packets per hop. Default value — 3. Value must be in the range [1;10].
interval	<i>Integer</i>	Time in seconds between sending packets. Default value — 0. Value must be in the range [0;15].
wait-time	<i>Integer</i>	Time to wait for a response to a probe (in seconds). Default value — 1. Value must be in the range [1;15].
packet-size	<i>Integer</i>	Size of packet according to the protocol type. For tcp type default packet size is 52. Range of values [52]. For udp and icmp types default packet size is 60. Range of values [28;65535].
max-ttl	<i>Integer</i>	Maximum number of hops (max time-to-live value) traceroute will probe. Default value — 30. Value must be in the range [1;255].
port	<i>Integer</i>	Destination port. For tcp type default port is 80. For udp type default port is 33434. For icmp type default port is 1.
source-address	<i>String</i>	Address of the outgoing interface.
source-interface	<i>String</i>	Interface to be used as the source interface in outgoing probe packets.
type	tcp	TCP protocol.
	udp	UDP protocol. Used by default.
	icmp	ICMP protocol.

Argument	Value	Description
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.

3.150 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.

3.150.1 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.

3.150.2 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.

3.150.3 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.

3.150.4 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.

3.150.5 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.

3.150.6 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.

3.151 upnp forward

Description Add [UPnP](#) forwarding rule.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Interface type IP

Synopsis

```
(config)> upnp forward <protocol> [ interface ] <address> <port>
(config)> no upnp forward [ <index> | ( <protocol> <address> <port> ) ]
```

Arguments

Argument	Value	Description
protocol	tcp	Rule for TCP protocol will be added/deleted.
	udp	Rule for UDP protocol will be added/deleted.

Argument	Value	Description
interface	<i>Interface</i>	Rule for specified interface name will be added.
address	<i>IP address</i>	Rule for specified IP address will be added/deleted.
port	<i>Integer</i>	Rule for specified port will be added/deleted.
index	<i>Integer</i>	Rule with specified number in the list will be removed.

History

Version	Description
2.00	The upnp forward command has been introduced.

3.152 upnp lan

Description

Set LAN interface where the *UPnP* service is running. The service works for one network segment only.

Command with **no** prefix removes setting.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Interface type

IP

Synopsis

```
(config)> upnp lan <interface>
```

```
(config)> no upnp lan
```

Arguments

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

Example

```
(config)> upnp lan [Tab]

Usage template:
    lan {interface}

Choose:
    GigabitEthernet1
    ISP
    WifiMaster0/AccessPoint2
```

```

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

```

```

(config)> upnp lan PPTP0
using LAN interface: PPTP0.

```

History

Version	Description
2.00	The upnp lan command has been introduced.

3.153 upnp redirect

Description

Add [UPnP](#) port translation rule.

Command with **no** prefix removes rule from the list. If you use no arguments, the entire list of rules will be removed.

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Interface type

IP

Synopsis

```

(config)> upnp redirect <protocol> <interface> <port> <to-address> [
to-port ]

(config)> no upnp redirect [and forward | [ <index> | ( <protocol> <port> )
]]

```

Arguments

Argument	Value	Description
protocol	tcp	Rule for TCP protocol will be added/deleted.
	udp	Rule for UDP protocol will be added/deleted.
interface	<i>Interface</i>	Rule for specified interface name will be added.
port	<i>Integer</i>	Rule for specified port will be added/deleted.
to-address	<i>IP address</i>	Rule for specified destination address will be added.
to-port	<i>Integer</i>	Rule for specified destination port will be added.
and forward	<i>Keyword</i>	Lists of forwarding and redirecting rules will be cleared.

Argument	Value	Description
index	<i>Integer</i>	Rule with specified number in the list will be removed.

History

Version	Description
2.00	The upnp redirect command has been introduced.

3.154 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.

3.154.1 user password

Description

Set the user password. The password is stored as MD5-hash, computed from the "*user:realm:password*" string. *realm* is the device model name from startup-config.txt file.

The command takes open string or hash-function value as argument. Saved password is used for user authentication.

Command with **no** prefix removes the password so that the user can access to the device unauthenticated.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(config-user)> password ( md5 <hash> | <password> )
(config-user)> no password
```

Arguments

Argument	Value	Description
hash	<i>String</i>	MD5-hash value.
password	<i>String</i>	Value of the password in open form, from which the hash value is calculated automatically.

Example

```
(config-user)> password 1111
Core::Authenticator: Password set has been changed for user ►
"test".
```

History

Version	Description
2.00	The user password command has been introduced.

3.154.2 user tag

Description

Assign a special tag to the user account, which presence is checked at the time of user authorization as well as performing any action in the system. Set of permitted tag values depends on the system functionality. The full list is shown in the table below.

Several different tags can be assigned to one account by entering the command several times. Each tag can be viewed as granting or revoking certain permissions.

Command with **no** prefix removes the specified tag.

Note: The admin account can not be untagged cli.

The admin account can not be untagged http in Repeater mode.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(config-user)> tag <tag>
```

```
(config-user)> no tag [ <tag> ]
```

Arguments

Argument	Value	Description
tag	cli	Access to the command line (TELNET and SSH).
	readonly	Restrict commands that change the settings.
	http-proxy	Access to the HTTP proxy.
	http	Access to the Web-interface.
	afp	Access to USB drives via Apple File Protocol.
	printers	Access to USB printers via SMB/CIFS.
	cifs	Connection to the Windows files and printers service.
	vpn-dlna	Access to the DLNA for PPTP, L2TP/IPSec, SSTP tunnels.
	ftp	Connection to an integrated FTP server.
	ipsec-xauth	Connection to an integrated IPsec/XAuth server.
	ipsec-l2tp	Connection to an integrated L2TP/IPSec server.
	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 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.
```

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.

Version	Description
4.02	The vpn-oc tags have been added.

3.155 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.

3.155.1 vpn-server dhcp route

Description Assign a route which is transmitted in DHCP INFORM messages to the VPN server clients.

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

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis (vpn-server)> **dhcp route** *address* *mask*

(vpn-server)> **no dhcp route** [*address* *mask*]

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.

3.155.2 vpn-server interface

Description

Bind VPN server to the specified interface.

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

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(vpn-server)> interface <interface>
```

```
(vpn-server)> no interface
```

Arguments

Argument	Value	Description
interface	<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.

3.155.3 vpn-server ipv6cp

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

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

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> ipv6cp
```

```
(vpn-server)> no ipv6cp
```

Example

```
(vpn-server)> ipv6cp
VpnServer::Manager: IPv6 control protocol enabled.
```

```
(vpn-server)> no ipv6cp
VpnServer::Manager: IPv6 control protocol disabled.
```

History

Version	Description
3.00	The vpn-server ipv6cp command has been introduced.

3.155.4 vpn-server lcp echo

Description Specify the testing rules of the PPTP connections with *LCP* echo tools.

Command with **no** prefix disables *LCP* echo.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> lcp echo <interval> <count> [adaptive]
```

```
(vpn-server)> no lcp echo
```

Arguments

Argument	Value	Description
interval	<i>Integer</i>	Interval between sending <i>LCP</i> echo, in seconds. If within the specified time interval there is no <i>LCP</i> echo request from the remote location, the same request will be sent there asking for response <i>LCP</i> reply.
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.

3.155.5 vpn-server lockout-policy

Description

Set VPN server bruteforce detection parameters. By default, feature is enabled. If you use 0 as an argument, all bruteforce detection parameters will be reset to default.

Command with **no** prefix disables bruteforce detection.

Prefix no

Yes

Change settings

Yes

Multiple input

No

Synopsis

```
(vpn-server)> lockout-policy <threshold> [ <duration> [
<observation-window> ]]
```

```
(vpn-server)> no lockout-policy
```

Arguments

Argument	Value	Description
threshold	<i>Integer</i>	The number of failed attempts to log in. By default, 5 value is used. Can take values in the range from 2 to 20.
duration	<i>Integer</i>	An authorization ban duration for the specified IP in minutes. By default, 15 value is used. Can take values in the range from 1 to 120.

Argument	Value	Description
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.

3.155.6 vpn-server mppe

Description

Set mode for *MPPE* encryption. 40-bit key is used by default.

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

Prefix no

Yes

Change settings

Yes

Multiple input

Yes

Synopsis

```
(vpn-server)> mppe <mode>
```

```
(vpn-server)> no mppe <mode>
```

Arguments

Argument	Value	Description
mode	40	Length of the encryption key is 40 bits.
	128	Length of the encryption key is 128 bits.

Example

```
(vpn-server)> mppe 40
VpnServer::Manager: Set encryption 40.
```

History

Version	Description
2.05	The vpn-server mppe command has been introduced.

3.155.7 vpn-server mppe-optional

Description Allow connections without [MPPE](#) encryption. By default, the feature is enabled.
Command with **no** prefix deny unencrypted connections.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> mppe-optional
(vpn-server)> no mppe-optional
```

Example

```
(vpn-server)> mppe-optional
VpnServer::Manager: Unencrypted connections enabled.

(vpn-server)> no mppe-optional
VpnServer::Manager: Unencrypted connections disabled.
```

History

Version	Description
2.04	The vpn-server mppe-optional command has been introduced.

3.155.8 vpn-server mru

Description Set [MRU](#) value to be transmitted to PPTP server. By default, 1350 value is used.
Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> mru <value>
(vpn-server)> no mru
```

Arguments

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

Example

```
(vpn-server)> mru 200
VpnServer::Manager: mru set to 200.
```

History	Version	Description
	2.04	The vpn-server mru command has been introduced.

3.155.9 vpn-server mtu

Description Set *MTU* value to be transmitted to PPTP server. By default, 1350 value is used.
Command with **no** prefix resets value to default.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> mtu <value>
(vpn-server)> no mtu
```

Arguments	Argument	Value	Description
	value	<i>Integer</i>	<i>MTU</i> value. Can take values in the range from 128 to 1500 inclusively.

Example

```
(vpn-server)> mtu 200
VpnServer::Manager: mtu set to 200.
```

History	Version	Description
	2.04	The vpn-server mtu command has been introduced.

3.155.10 vpn-server multi-login

Description Allow connection to VPN server for multiple users from one account.
Command with **no** prefix disables this feature.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> multi-login
(vpn-server)> no multi-login
```

Example

```
(vpn-server)> multi-login
VpnServer::Manager: multi login enabled.
```

History

Version	Description
2.04	The vpn-server multi-login command has been introduced.

3.155.11 vpn-server pool-range

Description Assign a pool of addresses for the clients that connect to the VPN server.
Command with **no** prefix removes a pool.

Prefix no Yes

Change settings Yes

Multiple input No

Synopsis

```
(vpn-server)> pool-range <begin> [ <size> ]
(vpn-server)> no pool-range
```

Arguments

Argument	Value	Description
begin	<i>IP address</i>	Start address of pool.
size	<i>Integer</i>	Pool size. Can take values in the range from 1 to 64 inclusively. If the size is not specified, it is determined automatically depending on the device.

Example

```
(vpn-server)> pool-range 172.168.1.22 20
VpnServer::Manager: Configured pool range 172.168.1.22 to ►
172.168.1.41.
```

```
(vpn-server)> no pool-range
VpnServer::Manager: Reset pool range.
```

History

Version	Description
2.04	The vpn-server pool-range command has been introduced.

3.155.12 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.

3.155.13 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.

3.155.14 vpn-server static-ip

Description

Bind IP address to the user. User account must have vpn tag.

Command with **no** prefix removes binding.

Prefix no Yes

Change settings Yes

Multiple input Yes

Synopsis

```
(vpn-server)> static-ip <name> <address>
(vpn-server)> no static-ip <name>
```

Arguments

Argument	Value	Description
name	<i>String</i>	Username.
address	<i>IP address</i>	IP address to bind.

Example

```
(vpn-server)> static-ip test 172.16.1.35
VpnServer::Manager: Static IP 172.16.1.35 assigned to user "test".
```

```
(vpn-server)> static-ip test
VpnServer::Manager: Static IP address removed for user "test".
```

History

Version	Description
2.04	The vpn-server static-ip command has been introduced.

Glossary

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 Keenetic device privacy notice on data processing.
DHCP	is a network protocol that is used to configure network devices so that they can communicate on an IP network. A DHCP client uses the DHCP protocol to acquire configuration information, such as an IP address, a default route, and one or more DNS server addresses from a DHCP server. The DHCP client then uses this information to configure its host. Once the configuration process is complete, the host is able to communicate on the Internet.
DHCP server	manages a pool of IP addresses and information about client configuration parameters such as default gateway, domain name, the name servers, other servers such as time servers, and so forth. On receiving a valid request, the server assigns the computer an IP address, a lease (length of time the allocation is valid), and other IP configuration parameters, such as the subnet mask and the default gateway. Depending on implementation, the DHCP server may have three methods of allocating IP-addresses: • <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.
Energy-Efficient Ethernet	also Green Ethernet is a set of enhancements to the twisted-pair and backplane Ethernet family of computer networking standards that reduce power consumption during periods of low data activity. The intention is to reduce power consumption by 50% or more, while retaining full compatibility with existing equipment.
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.
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.
IPsec Passthrough	is technology that allows VPN-traffic to pass through NAT.
IPsec Security Association	is fundamental to IPsec. An SA is a relationship between two or more entities that describes how the entities will use security services to communicate securely. Each IPsec connection can provide encryption, integrity, authenticity, or all three. When the security service is determined, the two IPsec peers must determine exactly which algorithms to use (for example, DES or 3DES for encryption, MD5 or SHA for integrity). After deciding on the algorithms, the two devices must share session keys. The Security Association is the method that IPsec uses to track all the particulars concerning a given IPsec communication session.
IP in IP	is an IP tunneling protocol that encapsulates one IP packet in another IP packet.
IPv6CP	is responsible for configuring, enabling, and disabling the IPv6 protocol modules on both ends of the Point-to-Point (PPP) link. IPv6CP uses the same packet exchange mechanism as the Link Control Protocol . IPv6CP packets may not be exchanged until PPP has reached the Network-Layer Protocol phase. IPv6CP packets received before this phase is reached should be silently discarded.
Layer 2 Tunneling Protocol	is a tunneling protocol used to support virtual private networks (VPNs) or as part of the delivery of services by ISPs. It does not provide any encryption or confidentiality by itself. Rather, it relies on an encryption protocol that it passes within the tunnel to provide privacy.
Link Control Protocol	establishes, configures, and tests data-link Internet connections in the Point-to-Point Protocol (PPP). Before establishing communications over a point-to-point link, each end of the PPP link must send out LCP packets. The LCP packet either accepts or rejects the identity of its linked peer, agrees up on packet size limits, and looks for common misconfiguration errors.

	LCP packets are divided into three classes: • Link configuration packets used to establish and configure a link • Link termination packets used to terminate a link • Link maintenance packets used to manage and debug a link
Link Layer Discovery Protocol	is a vendor-neutral link layer protocol in the Internet Protocol Suite used by network devices for advertising their identity, capabilities, and neighbors on an IEEE 802 local area network, principally wired Ethernet. Information gathered with LLDP is stored in the device as a management information database (MIB) and can be queried with the Simple Network Management Protocol (SNMP).
Low-Density Parity-Check	is a linear error correcting code, a method of transmitting a message over a noisy transmission channel. An LDPC is constructed using a sparse bipartite graph. LDPC codes are capacity-approaching codes, which means that practical constructions exist that allow the noise threshold to be set very close (or even arbitrarily close on the BEC) to the theoretical maximum (the Shannon limit) for a symmetric memoryless channel. The noise threshold defines an upper bound for the channel noise, up to which the probability of lost information can be made as small as desired. Using iterative belief propagation techniques, LDPC codes can be decoded in time linear to their block length.
Maximum Receive Unit	is the maximum size (in bytes) of the frame, which can be received at the data link layer of communication protocol.
Maximum Segment Size	is a parameter of the options field of the TCP header that specifies the largest amount of data, specified in bytes, that a computer or communications device can receive in a single TCP segment. It does not count the TCP header or the IP header.
Maximum Transmission Unit	is the largest size packet or frame, specified in octets (eight-bit bytes), that can be sent in a packet- or frame-based network such as the Internet. The Internet's Transmission Control Protocol (TCP) uses the MTU to determine the maximum size of each packet in any transmission. Most computer operating systems provide a default MTU value that is suitable for most users. In general, Internet users should follow the advice of their Internet service provider (ISP) about whether to change the default value and what to change it to.
Microsoft Point-to-Point Encryption	encrypts data in Point-to-Point Protocol based dial-up connections or Point-to-Point Tunneling Protocol (PPTP) connections. 128-bit key (strong), 56-bit key, and 40-bit key (standard) MPPE encryption schemes are supported. MPPE provides data security for the PPTP connection that is between the VPN client and the VPN server.
Modular Wi-Fi System	a system that allows several Keenetic devices to be combined into a single Internet space distributed over an area. One of the devices is defined as the controller, the others as the members.

Network Access Control List	rules that are applied to IP interfaces that are available on a router, each with a list of hosts or networks that are permitted or denied to use the service. Access control lists can be configured to control both inbound and outbound traffic.
Network Flow	network protocol for network traffic accounting, uses UDP or SCTP protocols to send traffic data to the collector. Collector is an application that runs on a server and collects statistics received from sensors. A sensor is a device that collects traffic statistics and sends it to a collector. The sensor can be a Cisco third-level router or switch.
NEXTDNS	service of NextDNS protects you from all kinds of security threats, blocks ads and trackers on websites and in apps and provides a safe and supervised Internet for kids — on all devices and on all networks.
Network Time Protocol	is a protocol that is used to synchronize computer clock times in a network of computers. Developed by David Mills at the University of Delaware, NTP is now an Internet standard. In common with similar protocols, NTP uses Coordinated Universal Time (UTC) to synchronize computer clock times to a millisecond, and sometimes to a fraction of a millisecond.
Network Traffic Classification Engine	also DPI, Deep Deep Packet Inspection is a technology for accumulating statistics and inspecting network packets based on their contents. Deep Packet Inspection analyzes not only packet headers, but also the full content of traffic at OSI layers 2 and above. Deep Packet Inspection can determine which network application has generated or received data, collecting detailed connection statistics for each device and application individually. With quality of service Deep Packet Inspection controls the transmission speed of individual packets by raising or lowering it. The Traffic Classification Engine component operates completely independently and does not make any calls to external services.
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	it is the first part of the Physical Layer Convergence Protocol/Procedure (PLCP) Protocol Data Unit (PDU). A header is the remaining part of the data packets and has more information identifying the modulation scheme, transmission rate, and length of time to transmit the whole data frame. The Preamble type in IEEE 802.11 based wireless communication defines the length of the CRC (Cyclic Redundancy Check) block for communication between the Access Point and roaming wireless adapters. Long preamble: • PLCP with long preamble is transmitted at 1 Mbps regardless of transmit rate of data frames • Total long preamble transfer time is a constant at 192 usec • Compatible with legacy IEEE 802.11 systems running at 1 and 2 Mbps Short preamble: • Preamble is transmitted at 1 Mbps and header at 2 Mbps

	• Total short preamble transfer time is a constant at 96 usec • Not compatible with legacy IEEE 802.11 systems operating at 1 and 2 Mbps
Protected Management Frames	IEEE 802.11w is the Protected Management Frames standard for the IEEE 802.11 family of standards. This functionality is necessary to improve security by ensuring data confidentiality in control frames.
Protocol Field Compression	is a method to negotiate the compression of the PPP Protocol field. By default, all implementations MUST transmit packets with two octet PPP Protocol fields.
Pseudo-Random Function	is similar to an integrity algorithm, but instead of being used to authenticate messages, it is only used to provide randomness for purposes such as keying material. PRFs are primarily used with an authenticated encryption algorithm type such as AES-GCM.
Radio Resource Management	is the system level management of co-channel interference, radio resources, and other radio transmission characteristics in wireless communication systems. RRM includes control parameters such as transmit power, user allocation, beamforming, data rates, handover criteria, modulation scheme, coding scheme errors.
Remote Authentication in Dial-In User Service	is a protocol to implement authentication, authorization, and resource collection. It is used for charging the used resources by a specific user. Used to authenticate users on open Wi-Fi wireless networks.
Restricted NAT	also Dynamic NAT works in the same way as a Full Cone NAT but applies additional restrictions based on an IP address. The internal client must first have sent packets to IP address (X) before it can receive packets from X. In terms of restrictions the only requirement is that packets come in on the mapped port and from an IP address that the internal client has sent packets to.
Secure Socket Tunneling Protocol	is a type of VPN tunnel that utilizes an SSL 3.0 channel to send PPP or L2TP traffic. SSL allows for transmission and data encryption, as well as traffic integrity checking. Due to this, SSTP can pass through most firewalls and proxy servers by using the SSL channel over TCP port 443.
Service Set Identifier	is a sequence of characters that uniquely names a wireless local area network (WLAN). An SSID is sometimes referred to as a "network name". This name allows stations to connect to the desired network when multiple independent networks operate in the same physical area.
Simple Network Management Protocol	is an Internet-standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior. Devices that typically support SNMP include routers, switches, servers, workstations, printers, modem racks and more.
Simple Network Time Protocol	is an Internet Protocol (IP) used to synchronize the clocks of networks of computers.

	SNTP is based upon the TCP/IP protocol suite. It is an application layer time protocol, part of the Network Time Protocol base protocol. Along with NTP, SNTP communicates using the User Datagram Protocol (UDP). By default, UDP port 123 is used. SNTP can operate on IPv4 and IPv6 networks. The standard is described in RFC 4330⁸.
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.
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.

⁸ <https://www.rfc-editor.org/rfc/rfc4330>

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.
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). WMM also features a Power Save certification that helps small devices on a network conserve battery life. Power Save allows small devices, such as phones and PDAs, to transmit data while in a low-power "dozing" status. The certification gives software developers and hardware manufacturers a way to fine-tune battery use in the ever-increasing number of small devices that have Wi-Fi capabilities.
Wi-Fi Protected Access	Wi-Fi Protected Access II (WPA2), and Wi-Fi Protected Access 3 (WPA3) are three security protocols and security certification programs developed by the Wi-Fi Alliance to secure wireless computer networks. The Alliance defined these in response to serious weaknesses researchers had found in the previous system, WEP. WPA advantages are enhanced data security and tightened access control for wireless

	networks. Important characteristic is the compatibility between multiple wireless devices at the hardware level as well as at software level. WPA3 uses 128-bit encryption in WPA3-Personal mode (192-bit in WPA3-Enterprise). The WPA3 standard also replaces the Pre-Shared Key exchange with Simultaneous Authentication of Equals as defined in IEEE 802.11-2016 resulting in a more secure initial key exchange in personal mode. WPA Enterprise is a protocol-based authentication mode IEEE 802.1X using an external authentication server RADIUS and local client Supplicant.
Wi-Fi Protected Setup	provides an industry-wide mechanism to set up and configure networks for home and small office (SOHO) environments. Wi-Fi Protected Setup enables typical users who possess little understanding of traditional Wi-Fi configuration and security settings to easily configure new wireless networks, to add new devices and to enable security.
Wired Equivalent Privacy	is a security algorithm for IEEE 802.11 wireless networks. WEP, recognizable by the key of 10 or 26 hexadecimal digits, is widely in use and is often the first security choice presented to users by router configuration tools. In 2004, with the ratification of the full 802.11i standard (i.e. WPA2), the IEEE declared that both WEP-40 and WEP-104 have been deprecated.
Wireless Internet Service Provider	is an Internet service provider (ISP) that allows subscribers to connect to a server at designated hotspots (access points) using a wireless connection such as Wi-Fi. This type of ISP offers Broadband service and allows subscriber computers, called stations, to access the Internet and the Web from anywhere within the zone of coverage provided by the server antenna. This is usually a region with a radius of several kilometers. The simplest WISP is a basic service set (BSS) consisting of one server and numerous stations all linked to that server by wireless. More sophisticated WISP networks employ the extended service set (ESS) topology, consisting of two or more BSSs linked together at access points (APs). Both BSS and ESS are supported by the IEEE 802.11b specification.
Extended Authentication	or XAUTH, provides an additional level of authentication by allowing the IPsec gateway to request extended authentication from remote users, thus forcing remote users to respond with their credentials before being allowed access to the VPN.
XFRM	is an IP framework for transforming packets (such as encrypting their payloads) and used to implement the IPsec protocol suite. It is also used for the IP Payload Compression Protocol and features of Mobile IPv6.
ZeroTier	is a distributed network hypervisor built atop a cryptographically secure global peer to peer network. It provides advanced network virtualization and management capabilities on par with an enterprise SDN switch,

but across both local and wide area networks and connecting almost any kind of app or device.

All traffic is encrypted end to end on OSI layer 1 using 256-bit Salsa20 and authenticated using the Poly1305 message authentication (MAC) algorithm. MAC is computed after encryption (encrypt-then-MAC) and the cipher/MAC composition used is identical to the NaCl reference implementation.

The ZeroTier world is controlled by two types of identifier: 40-bit/10-digit *ZeroTier addresses* and 64-bit/16-digit *network IDs*. These identifiers are easily distinguished by their length. A ZeroTier address identifies a node or "device" (laptop, phone, server, VM, app, etc.) while a network ID identifies a virtual Ethernet network that can be joined by devices.

A ZeroTier address looks like 8056c2e21c and a network ID looks like 8056c2e21c000001. Network IDs are composed of the ZeroTier address of that network's primary controller and an arbitrary 24-bit ID that identifies the network on this controller.

Interface Hierarchy

Figure A.1. Core interfaces

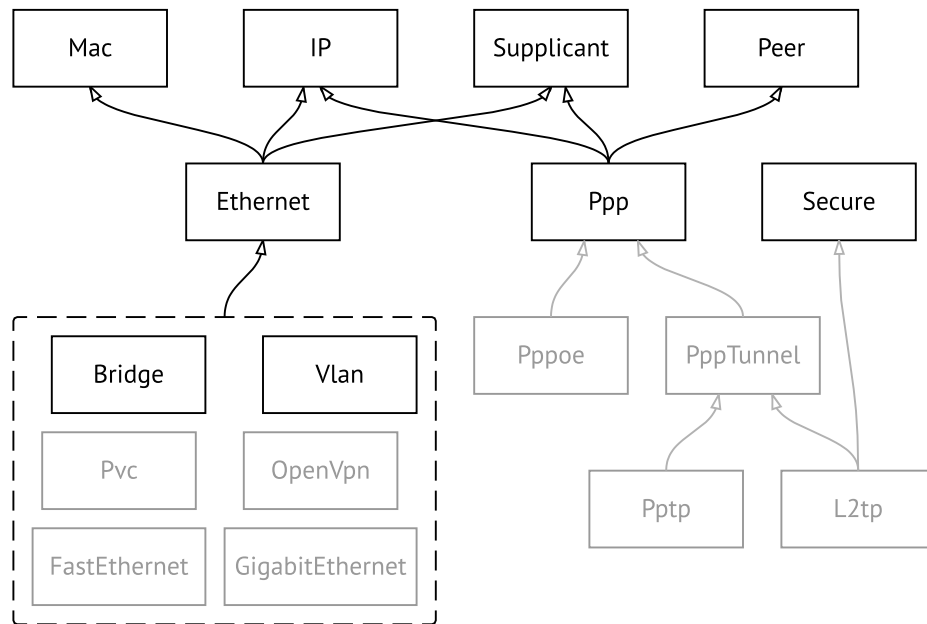


Figure A.2. Tunnel interfaces

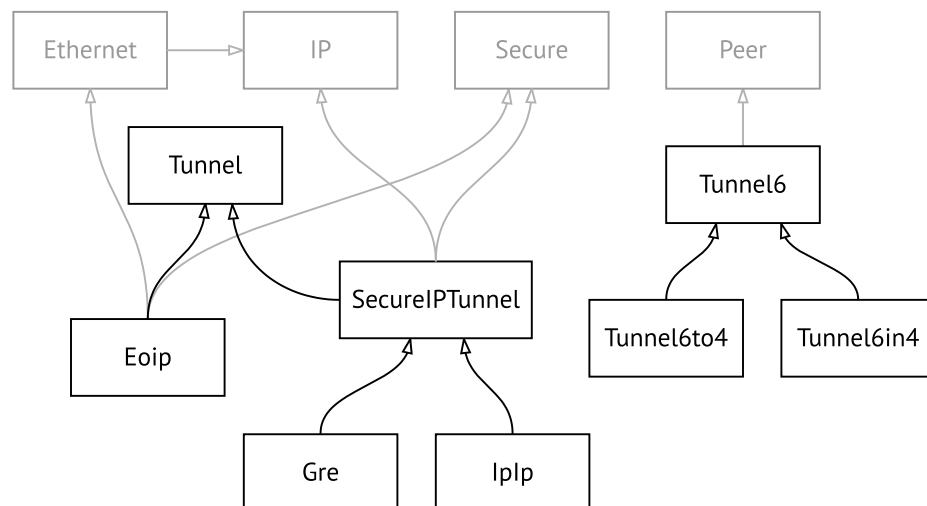
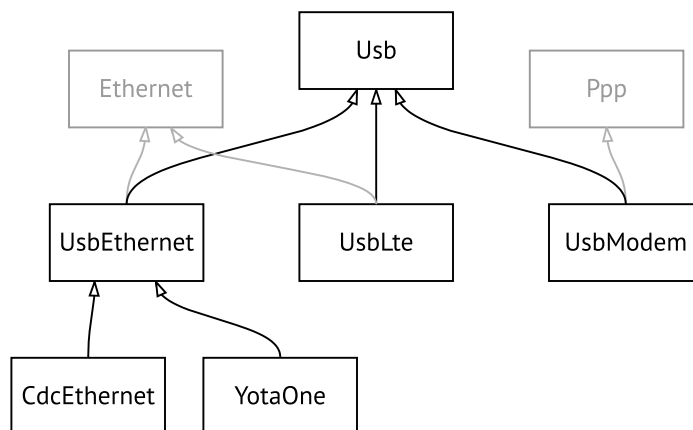
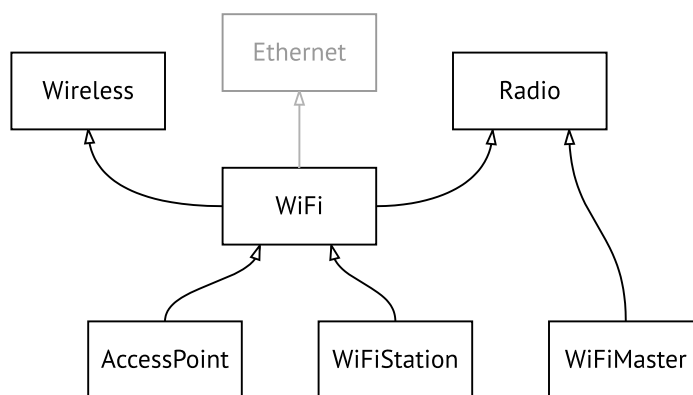


Figure A.3. USB interfaces**Figure A.4. Wi-Fi interfaces**

HTTP API

B.1 REST Core Interface

Sprinter HTTP API lets you develop a custom application, that will access Sprinter 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 Sprinter 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 664](#).

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 664](#)

- 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 665](#) and [Section B.1.3.3 on page 665](#)

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 3.42.10 on page 315](#) 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 134](#), and enable it with “interface up”. The “name” parameter applies to both “interface” and “up”.

```
POST /rci HTTP/1.1
Host: 192.168.1.1
Content-length: 39
Content-type: application/json

{"interface":{"name":"PPPoE1","up":{}}}
```

B.1.3.3 Arrays

Arrays can be used to operate on a specific resource multiple times. The important thing is that arrays preserve the order of their elements, in contrast to object members.

```
{
  "command": [
    {"parameter1": value1},
    {"parameter2": value2} ]
}
```

B.1.3.4 Response structure

The structure of POST output strictly corresponds to input. RCI reproduces input arrays and nested objects, and replaces input parameters with output data. This approach lets you locate any part of the response using a resource name.

Example B.3. Show version and interface Home

Run two different “show” commands in a certain order.

```
POST /rci/show HTTP/1.1
Host: 192.168.1.1
Content-length: 46
Content-type: application/json

[{"version":{}}, {"interface":{"name":"Home"}}]
```

Response is an array of two elements, in accordance with the request.

```
[
  {
    "version": {
      "release": "2.12.A.1.0-1",
      "arch": "mips",
      "ndm": {
        "exact": "0-cbf8590",
        "cdate": "15 Jan 2018"
      },
      "bsp": {
        "exact": "0-06ee10b",
        "cdate": "15 Jan 2018"
      },
      "ndw": {
        "version": "0.2.1",
        "features": "wifi_button,single_usb_port,dual_image",
        "components": "base,cloudcontrol,..."
      },
      "manufacturer": "Keenetic Ltd.",
      "vendor": "Keenetic",
      "series": "KN",
      "model": "4G (KN-1210)",
      "hw_version": "10128000",
      "hw_id": "KN-1210",
      "device": "4G",
      "class": "Internet Center"
    },
    "interface": {
      "id": "Bridge0",
      "index": 0,
      "type": "Bridge",
      "description": "Home network",
      "interface-name": "Home",
    }
  },
  {
    "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.

Sprinter 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 Sprinter 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 Sprinter.

```

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 35
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 35](#).

argument Name of the argument. Available arguments for each command are listed in [Chapter 3 on page 35](#). 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 31](#).

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:

Basical

OID: 1.3.6.1.2.1.2

- IF-MIB::ifNumber
- IF-MIB::ifIndex
- IF-MIB::ifDescr
- IF-MIB::ifType
- IF-MIB::ifMtu
- IF-MIB::ifSpeed
- IF-MIB::ifPhysAddress
- IF-MIB::ifAdminStatus

- IF-MIB::ifOperStatus
- IF-MIB::ifLastChange
- IF-MIB::ifInOctets
- IF-MIB::ifInUcastPkts
- IF-MIB::ifInDiscards
- IF-MIB::ifInErrors
- IF-MIB::ifOutOctets
- IF-MIB::ifOutUcastPkts
- IF-MIB::ifOutDiscards
- IF-MIB::ifOutErrors

Advanced

OID 1.3.6.1.2.1.31

- IF-MIB::ifName
- IF-MIB::ifInMulticastPkts
- IF-MIB::ifInBroadcastPkts
- IF-MIB::ifOutMulticastPkts
- IF-MIB::ifOutBroadcastPkts
- IF-MIB::ifHCInOctets
- IF-MIB::ifHCInUcastPkts
- IF-MIB::ifHCInMulticastPkts
- IF-MIB::ifHCInBroadcastPkts
- IF-MIB::ifHCOctets
- IF-MIB::ifHCOUcastPkts
- IF-MIB::ifHCOMulticastPkts
- IF-MIB::ifHCOBroadcastPkts
- IF-MIB::ifLinkUpDownTrapEnable
- IF-MIB::ifHighSpeed
- IF-MIB::ifPromiscuousMode
- IF-MIB::ifConnectorPresent
- IF-MIB::ifAlias

- IF-MIB::ifCounterDiscontinuityTime

Main chipset	Switch	Device	Description
MT7621/RT63368	MT7530	Keenetic Giga III	64-bit per port octet counters. 32-bit per port packet counters. Separate per port broadcast, multicast and unicast packet counters.
	RTL8370M	Keenetic Ultra II Keenetic LTE	
MT7620	RTL8367B	Keenetic Viva Keenetic Extra	
	Integrated	Keenetic 4G III Keenetic Lite II Keenetic Lite III Keenetic Omni Keenetic Omni II	32-bit per port octet counters & 16-bit per port packet counters. Last counter overflow event time set in IF-MIB::ifCounterDiscontinuityTime.
MT7628	Integrated	Keenetic Start II Keenetic Lite III rev.B Keenetic 4G III rev.B Keenetic Air Keenetic Extra II	16-bit per port packet counters only. Last counter overflow event time set in IF-MIB::ifCounterDiscontinuityTime.

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	• UCD-SNMP-MIB::memTotalReal • UCD-SNMP-MIB::memAvailReal • UCD-SNMP-MIB::memShared • UCD-SNMP-MIB::memBuffer

- UCD-SNMP-MIB::memCached

USB-storage info

- UCD-SNMP-MIB::dskIndex
- UCD-SNMP-MIB::dskPath
- UCD-SNMP-MIB::dskTotal
- UCD-SNMP-MIB::dskAvail
- UCD-SNMP-MIB::dskUsed
- UCD-SNMP-MIB::dskPercent
- UCD-SNMP-MIB::dskPercentNode

System load info

- UCD-SNMP-MIB::laIndex
- UCD-SNMP-MIB::laNames
- UCD-SNMP-MIB::laLoad
- UCD-SNMP-MIB::laConfig
- UCD-SNMP-MIB::laLoadInt
- UCD-SNMP-MIB::ssCpuRawUser
- UCD-SNMP-MIB::ssCpuRawNice
- UCD-SNMP-MIB::ssCpuRawSystem
- UCD-SNMP-MIB::ssCpuRawIdle
- UCD-SNMP-MIB::ssRawInterrupts
- UCD-SNMP-MIB::ssRawContexts

IPsec Encryption Levels

The encryption level defines a set of *IKE* and *IPsec SA* algorithms.

Below a complete list of algorithms is displayed for each level in order of decreasing priority, as well as a set of commands **crypto ike proposal** to setup this profile manually.

In the list of algorithms is indicated:

- encryption with key length
- hash function for *HMAC* forming
- *PFS* mode (NO if disabled)

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

