



CLI REFERENCE GUIDE R10.2
MediaAccess TG784n v3 - SIP



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MediaAccess TG784n v3 - SIP

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Document Information

Status: v3.0

Reference: DMS-CTC-20120717-0006

Short Title: CLI Reference Guide TG784n v3 - MP SIPS/SIP (SWv10.252)

Contents

| | |
|---------------------------------|-----------|
| atm Commands..... | 29 |
| atm cac config..... | 31 |
| atm cac list..... | 32 |
| atm cac overbooking..... | 33 |
| atm debug gstats..... | 34 |
| atm debug stats..... | 35 |
| atm debug traceconfig..... | 36 |
| atm flush..... | 37 |
| atm ifattach..... | 38 |
| atm ifconfig..... | 39 |
| atm ifdelete..... | 40 |
| atm ifdetach..... | 41 |
| atm iflist..... | 42 |
| atm oam cc list..... | 43 |
| atm oam cc modify..... | 44 |
| atm oam cc send..... | 45 |
| atm oam config..... | 46 |
| atm oam list..... | 47 |
| atm oam modify..... | 48 |
| atm oam ping..... | 49 |
| atm oam vclb add..... | 50 |
| atm oam vclb del..... | 51 |
| atm oam vclb list..... | 52 |
| atm phonebook add..... | 53 |
| atm phonebook delete..... | 54 |
| atm phonebook flush..... | 55 |
| atm phonebook list..... | 56 |
| atm qosbook add..... | 57 |
| atm qosbook config..... | 58 |
| atm qosbook ctdadd..... | 59 |
| atm qosbook ctdelete..... | 60 |
| atm qosbook ctlist..... | 61 |
| atm qosbook delete..... | 62 |
| atm qosbook flush..... | 63 |
| atm qosbook list..... | 64 |
| atm qos list..... | 65 |
| atm qos queue config..... | 66 |
| atm qos queue list..... | 67 |
| config Commands..... | 69 |
| config delete..... | 70 |
| config dump..... | 71 |
| config flush..... | 72 |
| config list..... | 73 |
| config load..... | 74 |
| config save..... | 75 |
| connection Commands..... | 77 |
| connection appconfig..... | 79 |
| connection appinfo..... | 80 |
| connection applist..... | 81 |

| | |
|--|------------|
| connection bind..... | 82 |
| connection bindblacklist add..... | 83 |
| connection bindblacklist delete..... | 84 |
| connection bindblacklist list..... | 85 |
| connection bindlist..... | 86 |
| connection clean..... | 87 |
| connection clear..... | 88 |
| connection config..... | 89 |
| connection debug..... | 90 |
| connection describe..... | 91 |
| connection flow add..... | 92 |
| connection flow delete..... | 93 |
| connection flow flush..... | 94 |
| connection flow list..... | 95 |
| connection flow qoslabeladd..... | 96 |
| connection flow qoslabeldel..... | 97 |
| connection flush..... | 98 |
| connection info..... | 99 |
| connection list..... | 100 |
| connection refresh..... | 101 |
| connection release..... | 102 |
| connection reserve..... | 103 |
| connection stats..... | 104 |
| connection timerclear..... | 105 |
| connection timerconfig..... | 106 |
| connection unbind..... | 107 |
| contentsharing Commands..... | 109 |
| contentsharing cifs config..... | 110 |
| contentsharing cifs list..... | 111 |
| contentsharing ftp config..... | 112 |
| contentsharing ftp list..... | 113 |
| contentsharing upnpav config..... | 114 |
| contentsharing upnpav list..... | 115 |
| contentsharing upnpav radiostation config..... | 116 |
| contentsharing upnpav radiostation list..... | 117 |
| contentsharing upnpav radiostation station add..... | 118 |
| contentsharing upnpav radiostation station delete..... | 119 |
| contentsharing upnpav radiostation station list..... | 120 |
| cwmp Commands..... | 121 |
| cwmp config..... | 122 |
| cwmp debug traceconfig..... | 124 |
| cwmp server config..... | 125 |
| debug Command..... | 127 |
| dhcp Commands..... | 129 |
| dhcp client debug clear..... | 135 |
| dhcp client debug stats..... | 136 |
| dhcp client debug traceconfig..... | 137 |
| dhcp client flush..... | 138 |
| dhcp client ifadd..... | 139 |
| dhcp client ifattach..... | 140 |
| dhcp client ifconfig..... | 141 |

| | |
|---|-----|
| dhcp client ifdelete..... | 142 |
| dhcp client ifdetach..... | 143 |
| dhcp client iflist..... | 144 |
| dhcp client ifrenew..... | 145 |
| dhcp client roptions add..... | 146 |
| dhcp client roptions delete..... | 147 |
| dhcp client roptions list..... | 148 |
| dhcp client roptions optionlist..... | 149 |
| dhcp client txoptions add..... | 150 |
| dhcp client txoptions delete..... | 152 |
| dhcp client txoptions list..... | 153 |
| dhcp client txoptions optionlist..... | 154 |
| dhcp clientv6 debug clear..... | 155 |
| dhcp clientv6 debug stats..... | 156 |
| dhcp clientv6 debug traceconfig..... | 157 |
| dhcp clientv6 flush..... | 158 |
| dhcp clientv6 ifadd..... | 159 |
| dhcp clientv6 ifattach..... | 160 |
| dhcp clientv6 ifconfig..... | 161 |
| dhcp clientv6 ifdelete..... | 163 |
| dhcp clientv6 ifdetach..... | 164 |
| dhcp clientv6 iflist..... | 165 |
| dhcp clientv6 ifrenew..... | 166 |
| dhcp clientv6 oro add..... | 167 |
| dhcp clientv6 oro delete..... | 168 |
| dhcp clientv6 oro list..... | 169 |
| dhcp clientv6 oro optionlist..... | 170 |
| dhcp clientv6 txoptions add..... | 171 |
| dhcp clientv6 txoptions delete..... | 172 |
| dhcp clientv6 txoptions list..... | 173 |
| dhcp clientv6 txoptions optionlist..... | 174 |
| dhcp relay add..... | 175 |
| dhcp relay config..... | 176 |
| dhcp relay debug stats..... | 177 |
| dhcp relay debug traceconfig..... | 178 |
| dhcp relay delete..... | 179 |
| dhcp relay flush..... | 180 |
| dhcp relay ifconfig..... | 181 |
| dhcp relay iflist..... | 182 |
| dhcp relay list..... | 183 |
| dhcp relay modify..... | 184 |
| dhcp relay ruleadd..... | 185 |
| dhcp relay ruledelate..... | 186 |
| dhcp relayv6 add..... | 187 |
| dhcp relayv6 config..... | 188 |
| dhcp relayv6 debug clear..... | 189 |
| dhcp relayv6 debug stats..... | 190 |
| dhcp relayv6 debug traceconfig..... | 191 |
| dhcp relayv6 debug tracelevel..... | 192 |
| dhcp relayv6 delete..... | 193 |
| dhcp relayv6 flush..... | 194 |
| dhcp relayv6 ifconfig..... | 195 |
| dhcp relayv6 iflist..... | 196 |
| dhcp relayv6 list..... | 197 |
| dhcp relayv6 modify..... | 198 |

| | |
|---------------------------------------|-----|
| dhcp relayv6 ruleadd..... | 199 |
| dhcp relayv6 ruledelate..... | 200 |
| dhcp rule add..... | 201 |
| dhcp rule debug traceconfig..... | 203 |
| dhcp rule delete..... | 204 |
| dhcp rule flush..... | 205 |
| dhcp rule list..... | 206 |
| dhcp server config..... | 207 |
| dhcp server debug clear..... | 208 |
| dhcp server debug stats..... | 209 |
| dhcp server debug traceconfig..... | 210 |
| dhcp server flush..... | 211 |
| dhcp server lease add..... | 212 |
| dhcp server lease delete..... | 213 |
| dhcp server lease flush..... | 214 |
| dhcp server lease list..... | 215 |
| dhcp server option flush..... | 216 |
| dhcp server option instadd..... | 217 |
| dhcp server option instdelete..... | 218 |
| dhcp server option instlist..... | 219 |
| dhcp server option ruleadd..... | 220 |
| dhcp server option ruledelate..... | 221 |
| dhcp server option tpladd..... | 222 |
| dhcp server option tpldelete..... | 223 |
| dhcp server option tmplist..... | 224 |
| dhcp server policy..... | 225 |
| dhcp server pool add..... | 226 |
| dhcp server pool config..... | 227 |
| dhcp server pool delete..... | 229 |
| dhcp server pool flush..... | 230 |
| dhcp server pool list..... | 231 |
| dhcp server pool optadd..... | 232 |
| dhcp server pool optdelete..... | 233 |
| dhcp server pool rtadd..... | 234 |
| dhcp server pool rtdelete..... | 235 |
| dhcp server pool ruleadd..... | 236 |
| dhcp server pool ruledelate..... | 237 |
| dhcp serverv6 config..... | 238 |
| dhcp serverv6 debug clear..... | 239 |
| dhcp serverv6 debug stats..... | 240 |
| dhcp serverv6 debug traceconfig..... | 241 |
| dhcp serverv6 flush..... | 242 |
| dhcp serverv6 option add..... | 243 |
| dhcp serverv6 option delete..... | 244 |
| dhcp serverv6 option fieldadd..... | 245 |
| dhcp serverv6 option fielddelete..... | 246 |
| dhcp serverv6 option flush..... | 247 |
| dhcp serverv6 option list..... | 248 |
| dhcp serverv6 option modify..... | 249 |
| dhcp serverv6 option optionlist..... | 250 |
| dhcp serverv6 option ruleadd..... | 251 |
| dhcp serverv6 option ruledelate..... | 252 |
| dhcp serverv6 pool add..... | 253 |
| dhcp serverv6 pool config..... | 254 |
| dhcp serverv6 pool delete..... | 255 |
| dhcp serverv6 pool flush..... | 256 |

| | |
|--------------------------------------|-----|
| dhcp serverv6 pool list..... | 257 |
| dhcp serverv6 pool optionadd..... | 258 |
| dhcp serverv6 pool optiondelete..... | 259 |
| dhcp serverv6 pool ruleadd..... | 260 |
| dhcp serverv6 pool ruledelete..... | 261 |
| dhcp spoofing add..... | 262 |
| dhcp spoofing attach..... | 263 |
| dhcp spoofing config..... | 264 |
| dhcp spoofing debug traceconfig..... | 265 |
| dhcp spoofing delete..... | 266 |
| dhcp spoofing detach..... | 267 |
| dhcp spoofing flush..... | 268 |
| dhcp spoofing list..... | 269 |
| dhcp spoofing option-add..... | 270 |
| dhcp spoofing option-delete..... | 271 |

dns Commands..... 273

| | |
|--|-----|
| dns client config..... | 275 |
| dns client dnsadd..... | 276 |
| dns client dnsdelete..... | 277 |
| dns client dnslist..... | 278 |
| dns client flush..... | 279 |
| dns client nslookup..... | 280 |
| dns server config..... | 281 |
| dns server debug clear..... | 282 |
| dns server debug spoof clear..... | 283 |
| dns server debug spoof getaddress..... | 284 |
| dns server debug spoof getflags..... | 285 |
| dns server debug spoof list..... | 286 |
| dns server debug spoof update..... | 287 |
| dns server debug stats..... | 288 |
| dns server flush..... | 289 |
| dns server forward dnsset add..... | 290 |
| dns server forward dnsset delete..... | 291 |
| dns server forward dnsset flush..... | 292 |
| dns server forward dnsset list..... | 293 |
| dns server forward flush..... | 294 |
| dns server forward list..... | 295 |
| dns server forward rule add..... | 296 |
| dns server forward rule delete..... | 297 |
| dns server forward rule flush..... | 298 |
| dns server forward rule list..... | 299 |
| dns server host add..... | 300 |
| dns server host delete..... | 301 |
| dns server host flush..... | 302 |
| dns server host list..... | 303 |

download Commands..... 305

| | |
|---------------------------------|-----|
| download config..... | 306 |
| download debug sesslist..... | 307 |
| download debug traceconfig..... | 308 |
| download ifadd..... | 309 |
| download ifattach..... | 310 |
| download ifconfig..... | 311 |
| download ifdelete..... | 312 |

| | |
|------------------------------|-----|
| download ifdetach..... | 313 |
| download iflist..... | 314 |
| download profile add..... | 315 |
| download profile delete..... | 316 |
| download profile list..... | 317 |
| download profile modify..... | 318 |
| download start..... | 319 |

dsd Commands.....321

| | |
|---|-----|
| dsd config..... | 323 |
| dsd debug config..... | 324 |
| dsd debug connection list..... | 325 |
| dsd debug proxy..... | 326 |
| dsd debug recycling..... | 327 |
| dsd debug stats..... | 328 |
| dsd intercept config..... | 329 |
| dsd syslog config..... | 330 |
| dsd syslog list..... | 331 |
| dsd urlfilter config..... | 332 |
| dsd urlfilter rule add..... | 333 |
| dsd urlfilter rule delete..... | 334 |
| dsd urlfilter rule flush..... | 335 |
| dsd urlfilter rule list..... | 336 |
| dsd urlfilter rule modify..... | 337 |
| dsd webfilter cache flush..... | 338 |
| dsd webfilter cache stats..... | 339 |
| dsd webfilter config..... | 340 |
| dsd webfilter list..... | 341 |
| dsd webfilter professional category add..... | 342 |
| dsd webfilter professional category create..... | 343 |
| dsd webfilter professional category delete..... | 344 |
| dsd webfilter professional category flush..... | 345 |
| dsd webfilter professional category list..... | 346 |
| dsd webfilter professional category remove..... | 347 |
| dsd webfilter professional config..... | 348 |
| dsd webfilter professional level add..... | 349 |
| dsd webfilter professional level delete..... | 350 |
| dsd webfilter professional level flush..... | 351 |
| dsd webfilter professional level list..... | 352 |
| dsd webfilter professional level modify..... | 353 |
| dsd webfilter professional level set..... | 354 |
| dsd webfilter professional rule clear..... | 355 |
| dsd webfilter professional rule list..... | 356 |
| dsd webfilter professional rule modify..... | 357 |
| dsd webfilter server add..... | 358 |
| dsd webfilter server config..... | 359 |
| dsd webfilter server delete..... | 360 |
| dsd webfilter server flush..... | 361 |
| dsd webfilter server list..... | 362 |
| dsd webfilter server modify..... | 363 |
| dsd webfilter standard category add..... | 364 |
| dsd webfilter standard category create..... | 365 |
| dsd webfilter standard category delete..... | 366 |
| dsd webfilter standard category flush..... | 367 |
| dsd webfilter standard category list..... | 368 |
| dsd webfilter standard category remove..... | 369 |

| | |
|--|------------|
| dsd webfilter standard config..... | 370 |
| dsd webfilter standard level add..... | 371 |
| dsd webfilter standard level delete..... | 372 |
| dsd webfilter standard level flush..... | 373 |
| dsd webfilter standard level list..... | 374 |
| dsd webfilter standard level modify..... | 375 |
| dsd webfilter standard level set..... | 376 |
| dsd webfilter standard rule clear..... | 377 |
| dsd webfilter standard rule list..... | 378 |
| dsd webfilter standard rule modify..... | 379 |
| dyndns Commands..... | 381 |
| dyndns add..... | 382 |
| dyndns delete..... | 383 |
| dyndns flush..... | 384 |
| dyndns host add..... | 385 |
| dyndns host delete..... | 386 |
| dyndns host flush..... | 387 |
| dyndns host list..... | 388 |
| dyndns list..... | 389 |
| dyndns modify..... | 390 |
| dyndns service list..... | 391 |
| dyndns service modify..... | 392 |
| env Commands..... | 393 |
| env flush..... | 394 |
| env get..... | 395 |
| env list..... | 396 |
| env set..... | 397 |
| env unset..... | 398 |
| eth Commands..... | 399 |
| eth bridge add..... | 404 |
| eth bridge clear..... | 405 |
| eth bridge config..... | 406 |
| eth bridge delete..... | 407 |
| eth bridge dynvlan actlist..... | 408 |
| eth bridge dynvlan add..... | 409 |
| eth bridge dynvlan config..... | 410 |
| eth bridge dynvlan delete..... | 411 |
| eth bridge dynvlan flush..... | 412 |
| eth bridge dynvlan list..... | 413 |
| eth bridge filter add..... | 414 |
| eth bridge filter attach..... | 415 |
| eth bridge filter config..... | 416 |
| eth bridge filter delete..... | 417 |
| eth bridge filter detach..... | 418 |
| eth bridge filter forwarding..... | 419 |
| eth bridge filter fwdintfadd..... | 420 |
| eth bridge filter fwdintfdel..... | 421 |
| eth bridge filter ifadd..... | 422 |
| eth bridge filter ifdel..... | 423 |
| eth bridge filter list..... | 424 |
| eth bridge flush..... | 425 |

| | |
|--|-----|
| eth bridge ifadd..... | 426 |
| eth bridge ifattach..... | 427 |
| eth bridge ifconfig..... | 428 |
| eth bridge ifdelete..... | 430 |
| eth bridge ifdetach..... | 431 |
| eth bridge ifflush..... | 432 |
| eth bridge iflist..... | 433 |
| eth bridge igmpsnooping clear..... | 434 |
| eth bridge igmpsnooping config..... | 435 |
| eth bridge igmpsnooping ifconfig..... | 436 |
| eth bridge igmpsnooping iflist..... | 437 |
| eth bridge igmpsnooping list..... | 438 |
| eth bridge ippriomap..... | 439 |
| eth bridge ippriomapreset..... | 440 |
| eth bridge list..... | 441 |
| eth bridge macadd..... | 442 |
| eth bridge macdelete..... | 443 |
| eth bridge maclist..... | 444 |
| eth bridge mldsnooping clear..... | 445 |
| eth bridge mldsnooping config..... | 446 |
| eth bridge mldsnooping ifconfig..... | 447 |
| eth bridge mldsnooping iflist..... | 448 |
| eth bridge mldsnooping list..... | 449 |
| eth bridge rule add..... | 450 |
| eth bridge rule delete..... | 451 |
| eth bridge rule flush..... | 452 |
| eth bridge rule list..... | 453 |
| eth bridge select..... | 454 |
| eth bridge unknownvlan ifadd..... | 455 |
| eth bridge unknownvlan ifconfig..... | 456 |
| eth bridge unknownvlan ifdelete..... | 457 |
| eth bridge unknownvlan iflist..... | 458 |
| eth bridge vlan ifadd..... | 459 |
| eth bridge vlan ifconfig..... | 460 |
| eth bridge vlan ifdelete..... | 461 |
| eth bridge vlan iflist..... | 462 |
| eth bridge vlan ifstats..... | 463 |
| eth bridge xtratag add..... | 464 |
| eth bridge xtratag config..... | 465 |
| eth bridge xtratag delete..... | 466 |
| eth bridge xtratag flush..... | 467 |
| eth bridge xtratag list..... | 468 |
| eth device debug stats..... | 469 |
| eth device ifautoneg..... | 470 |
| eth device ifconfig..... | 471 |
| eth device iflist..... | 472 |
| eth device ifrestart..... | 473 |
| eth filter operand add..... | 474 |
| eth filter operand config..... | 475 |
| eth filter operand delete..... | 477 |
| eth filter operand flush..... | 478 |
| eth filter operand frameclassadd..... | 479 |
| eth filter operand frameclassdelete..... | 480 |
| eth filter operand ipprotoadd..... | 481 |
| eth filter operand ipprotodelete..... | 482 |
| eth filter operand list..... | 483 |

| | |
|--|------------|
| eth filter operand priorityadd..... | 484 |
| eth filter operand prioritydelete..... | 485 |
| eth filter operand reset..... | 486 |
| eth filter operand vidadd..... | 487 |
| eth filter operand viddelete..... | 488 |
| eth filter template add..... | 489 |
| eth filter template config..... | 490 |
| eth filter template delete..... | 491 |
| eth filter template flush..... | 492 |
| eth filter template list..... | 493 |
| eth filter template ruleadd..... | 494 |
| eth filter template ruledel..... | 495 |
| eth filter template rulemodify..... | 496 |
| eth filter template setpriority..... | 497 |
| eth filter template setvid..... | 498 |
| eth flush..... | 499 |
| eth ifadd..... | 500 |
| eth ifattach..... | 501 |
| eth ifconfig..... | 502 |
| eth ifdelete..... | 503 |
| eth ifdetach..... | 504 |
| eth iflist..... | 505 |
| eth switch group delete..... | 506 |
| eth switch group flush..... | 507 |
| eth switch group list..... | 508 |
| eth switch group move..... | 509 |
| eth switch info..... | 510 |
| eth switch mirror capture..... | 511 |
| eth switch mirror egress..... | 512 |
| eth switch mirror ingress..... | 513 |
| eth switch qos config..... | 514 |
| eth switch qos ifconfig..... | 515 |
| eth switch qos list..... | 516 |
| eth switch qos weights..... | 517 |
| eth switch shaper config..... | 518 |
| eth switch shaper ifconfig..... | 519 |
| eth switch shaper iflist..... | 520 |
| eth switch share add..... | 521 |
| eth switch share delete..... | 522 |
| eth switch share list..... | 523 |
| eth switch storm ifconfig..... | 524 |
| eth switch storm iflist..... | 525 |
| eth vlan add..... | 526 |
| eth vlan delete..... | 527 |
| eth vlan flush..... | 528 |
| eth vlan list..... | 529 |
| eth vlan priomap config..... | 530 |
| eth vlan priomap list..... | 531 |
| expr Commands..... | 533 |
| expr add..... | 534 |
| expr delete..... | 538 |
| expr flush..... | 539 |
| expr list..... | 540 |
| expr modify..... | 541 |

| | |
|--------------------------------------|------------|
| firewall Commands..... | 545 |
| firewall chain add..... | 546 |
| firewall chain delete..... | 547 |
| firewall chain flush..... | 548 |
| firewall chain list..... | 549 |
| firewall clear..... | 550 |
| firewall config..... | 551 |
| firewall debug clear..... | 552 |
| firewall debug stats..... | 553 |
| firewall debug traceconfig..... | 554 |
| firewall level add..... | 555 |
| firewall level delete..... | 556 |
| firewall level flush..... | 557 |
| firewall level list..... | 558 |
| firewall level modify..... | 559 |
| firewall level set..... | 560 |
| firewall list..... | 561 |
| firewall rule add..... | 562 |
| firewall rule debug clear..... | 564 |
| firewall rule debug stats..... | 565 |
| firewall rule debug traceconfig..... | 566 |
| firewall rule delete..... | 567 |
| firewall rule flush..... | 568 |
| firewall rule list..... | 569 |
| firewall rule modify..... | 570 |
| grp Commands..... | 573 |
| grp config..... | 574 |
| grp flush..... | 575 |
| grp rip config..... | 576 |
| grp rip flush..... | 577 |
| grp rip ifconfig..... | 578 |
| grp rip show..... | 579 |
| grp rtlist..... | 580 |
| help Command..... | 581 |
| hostmgr Commands..... | 583 |
| hostmgr add..... | 584 |
| hostmgr clear..... | 585 |
| hostmgr config..... | 586 |
| hostmgr delete..... | 587 |
| hostmgr flush..... | 588 |
| hostmgr list..... | 589 |
| hostmgr update..... | 590 |
| ids Commands..... | 591 |
| ids clear..... | 592 |
| ids config..... | 593 |
| ids parser list..... | 594 |
| ids parser modify..... | 595 |
| ids pattern clear..... | 596 |
| ids pattern list..... | 597 |
| ids pattern stats..... | 598 |
| ids signature list..... | 599 |

| | |
|-----------------------------------|------------|
| ids signature modify..... | 600 |
| ids threshold clear..... | 601 |
| ids threshold list..... | 602 |
| ids threshold modify..... | 603 |
| igmp Commands..... | 605 |
| igmp host config..... | 606 |
| igmp host debug clear..... | 607 |
| igmp host debug stats..... | 608 |
| igmp host flush..... | 609 |
| igmp host ifconfig..... | 610 |
| igmp host iflist..... | 611 |
| igmp host list..... | 612 |
| igmp proxy config..... | 613 |
| igmp proxy debug clear..... | 614 |
| igmp proxy debug stats..... | 615 |
| igmp proxy debug traceconfig..... | 616 |
| igmp proxy flush..... | 617 |
| igmp proxy grouplist..... | 618 |
| igmp proxy ifconfig..... | 619 |
| igmp proxy iflist..... | 620 |
| igmp proxy mbplist..... | 621 |
| interface Commands..... | 623 |
| interface ifstack..... | 624 |
| interface list..... | 625 |
| ip Commands..... | 627 |
| ip aip config..... | 630 |
| ip aip hw config..... | 631 |
| ip aip hw fap..... | 632 |
| ip aip hw flush..... | 633 |
| ip aip hw stats..... | 634 |
| ip aip list..... | 635 |
| ip aip stats..... | 636 |
| ip arpadd..... | 637 |
| ip arpdelete..... | 638 |
| ip arplist..... | 639 |
| ip auto debug traceconfig..... | 640 |
| ip auto flush..... | 641 |
| ip auto ifadd..... | 642 |
| ip auto ifattach..... | 643 |
| ip auto ifconfig..... | 644 |
| ip auto ifdelete..... | 645 |
| ip auto ifdetach..... | 646 |
| ip auto iflist..... | 647 |
| ip clearifstats..... | 648 |
| ip config..... | 649 |
| ip debug clearstats..... | 650 |
| ip debug httpprobe..... | 651 |
| ip debug nbflush..... | 652 |
| ip debug sendto..... | 653 |
| ip debug stats..... | 654 |
| ip debug traceconfig..... | 655 |

| | |
|-------------------------------------|------------|
| ip flush..... | 656 |
| ip ifadd..... | 657 |
| ip ifattach..... | 658 |
| ip ifconfig..... | 659 |
| ip ifdelete..... | 661 |
| ip ifdetach..... | 662 |
| ip iflist..... | 663 |
| ip ifwait..... | 664 |
| ip ipadd..... | 665 |
| ip ipconfig..... | 666 |
| ip ipdelete..... | 667 |
| ip iplist..... | 668 |
| ip mcast flush..... | 669 |
| ip mcast rtadd..... | 670 |
| ip mcast rtdelete..... | 671 |
| ip mcast rtlist..... | 672 |
| ip nbdelete..... | 673 |
| ip nblist..... | 674 |
| ip nbset..... | 675 |
| ip rt6advd config..... | 676 |
| ip rt6advd cpdlist..... | 677 |
| ip rt6advd debug clear..... | 678 |
| ip rt6advd debug stats..... | 679 |
| ip rt6advd debug traceconfig..... | 680 |
| ip rt6advd ifadd..... | 681 |
| ip rt6advd ifattach..... | 682 |
| ip rt6advd ifconfig..... | 683 |
| ip rt6advd ifdelete..... | 684 |
| ip rt6advd ifdetach..... | 685 |
| ip rt6advd iflist..... | 686 |
| ip rt6advd option dns add..... | 687 |
| ip rt6advd option dns delete..... | 688 |
| ip rt6advd option dns list..... | 689 |
| ip rt6advd option dns sladd..... | 690 |
| ip rt6advd option dns sldelete..... | 691 |
| ip rt6advd option dns slist..... | 692 |
| ip rt6advd option route add..... | 693 |
| ip rt6advd option route delete..... | 694 |
| ip rt6advd option route list..... | 695 |
| ip rt6advd pdadd..... | 696 |
| ip rt6advd pddelete..... | 697 |
| ip rt6advd pdlist..... | 698 |
| ip rt6advd pfxadd..... | 699 |
| ip rt6advd pfxdelete..... | 700 |
| ip rt6advd pfxlist..... | 701 |
| ip rtadd..... | 702 |
| ip rtconfig..... | 703 |
| ip rtdelete..... | 704 |
| ip rtlist..... | 705 |
| ipqos Commands..... | 707 |
| ipqos config..... | 708 |
| ipqos ef config..... | 710 |
| ipqos ef list..... | 711 |
| ipqos ef stats..... | 712 |
| ipqos list..... | 713 |

| | |
|-----------------------------------|------------|
| ipqos meter add..... | 714 |
| ipqos meter clear..... | 715 |
| ipqos meter config..... | 716 |
| ipqos meter delete..... | 718 |
| ipqos meter flush..... | 719 |
| ipqos meter list..... | 720 |
| ipqos meter start..... | 721 |
| ipqos meter stats..... | 722 |
| ipqos meter stop..... | 723 |
| ipqos queue clear..... | 724 |
| ipqos queue config..... | 725 |
| ipqos queue list..... | 727 |
| ipqos queue stats..... | 728 |
| label Commands..... | 729 |
| label add..... | 730 |
| label chain add..... | 731 |
| label chain delete..... | 732 |
| label chain flush..... | 733 |
| label chain list..... | 734 |
| label delete..... | 735 |
| label flush..... | 736 |
| label list..... | 737 |
| label modify..... | 738 |
| label rule add..... | 739 |
| label rule debug clear..... | 741 |
| label rule debug stats..... | 742 |
| label rule debug traceconfig..... | 743 |
| label rule delete..... | 744 |
| label rule flush..... | 745 |
| label rule list..... | 746 |
| label rule modify..... | 747 |
| language Commands..... | 749 |
| language config..... | 750 |
| language delete..... | 751 |
| language list..... | 752 |
| led Command..... | 753 |
| mbus Commands..... | 755 |
| mbus client authenticate..... | 756 |
| mbus client config..... | 757 |
| mbus client exec..... | 758 |
| mbus client register..... | 760 |
| mbus client termsession..... | 761 |
| mbus client unregister..... | 762 |
| mbus debug clearstats..... | 763 |
| mbus debug commconfig..... | 764 |
| mbus debug loadobjects..... | 765 |
| mbus debug stats..... | 766 |
| mbus debug traceconfig..... | 767 |
| mbus debug unloadobjects..... | 768 |
| mbus listcontexts..... | 769 |

| | |
|----------------------------------|------------|
| mbus listenums..... | 770 |
| mbus listobjects..... | 771 |
| mbus listsubscriptions..... | 772 |
| mbus listtypes..... | 773 |
| mbus pluginevent..... | 774 |
| mbus unregister..... | 775 |
| mbus xmldump..... | 776 |
| memm Commands..... | 777 |
| memm debug clearstats..... | 778 |
| memm debug lock stats..... | 779 |
| memm debug lock traceconfig..... | 780 |
| memm debug stats..... | 781 |
| memm debug tag..... | 782 |
| memm debug traceconfig..... | 783 |
| memm listobjects..... | 784 |
| memm stats..... | 785 |
| mld Commands..... | 787 |
| mld host config..... | 788 |
| mld host debug block..... | 789 |
| mld host debug clear..... | 790 |
| mld host debug filter..... | 791 |
| mld host debug join..... | 792 |
| mld host debug leave..... | 793 |
| mld host debug stats..... | 794 |
| mld host debug unblock..... | 795 |
| mld host flush..... | 796 |
| mld host ifconfig..... | 797 |
| mld host iflist..... | 798 |
| mld host list..... | 799 |
| mld proxy config..... | 800 |
| mld proxy debug clear..... | 801 |
| mld proxy debug stats..... | 802 |
| mld proxy debug traceconfig..... | 803 |
| mld proxy flush..... | 804 |
| mld proxy grouplist..... | 805 |
| mld proxy ifconfig..... | 806 |
| mld proxy iflist..... | 807 |
| mld proxy mbslist..... | 808 |
| mlp Commands..... | 809 |
| mlp debug export..... | 810 |
| mlp debug stats..... | 811 |
| mlp debug traceconfig..... | 812 |
| mlp flush..... | 813 |
| mlp import..... | 814 |
| mlp privilege add..... | 815 |
| mlp privilege addzone..... | 816 |
| mlp privilege config..... | 817 |
| mlp privilege delete..... | 818 |
| mlp privilege list..... | 819 |
| mlp privilege removezone..... | 820 |
| mlp role add..... | 821 |
| mlp role addpriv..... | 822 |

| | |
|-------------------------------|------------|
| mlp role config..... | 823 |
| mlp role delete..... | 824 |
| mlp role list..... | 825 |
| mlp role removepriv..... | 826 |
| mlp wlanorigin..... | 827 |
| mobile Commands..... | 829 |
| mobile debug operator..... | 830 |
| mobile debug sendat..... | 831 |
| mobile debug showsq..... | 832 |
| mobile debug traceconfig..... | 833 |
| mobile device list..... | 834 |
| mobile ifadd..... | 835 |
| mobile ifattach..... | 836 |
| mobile ifconfig..... | 837 |
| mobile ifdelete..... | 838 |
| mobile ifdetach..... | 839 |
| mobile iflist..... | 840 |
| mobile simcard..... | 841 |
| nat Commands..... | 843 |
| nat config..... | 844 |
| nat flush..... | 845 |
| nat ifconfig..... | 846 |
| nat iflist..... | 847 |
| nat mapadd..... | 848 |
| nat mapdelete..... | 849 |
| nat maplist..... | 850 |
| nat tmpadd..... | 851 |
| nat tmpdelete..... | 853 |
| nat tmpinst..... | 854 |
| nat tmpplist..... | 855 |
| ppp Commands..... | 857 |
| ppp flush..... | 858 |
| ppp ifadd..... | 859 |
| ppp ifattach..... | 860 |
| ppp ifconfig..... | 861 |
| ppp ifdelete..... | 864 |
| ppp ifdetach..... | 865 |
| ppp iflist..... | 866 |
| ppp ifscan..... | 867 |
| ppp relay flush..... | 868 |
| ppp relay ifadd..... | 869 |
| ppp relay ifconfig..... | 870 |
| ppp relay ifdelete..... | 871 |
| ppp relay iflist..... | 872 |
| ppp relay sesslist..... | 873 |
| ppp rtadd..... | 874 |
| ppp rtdelete..... | 875 |
| pptp Commands..... | 877 |
| pptp flush..... | 878 |
| pptp ifadd..... | 879 |

| | |
|--------------------------------------|------------|
| pptp list..... | 880 |
| pptp profadd..... | 881 |
| pptp profdelete..... | 882 |
| pptp proflist..... | 883 |
| printersharing Commands..... | 885 |
| printersharing LPD config..... | 886 |
| printersharing LPD list..... | 887 |
| printersharing LPD queue add..... | 888 |
| printersharing LPD queue delete..... | 889 |
| printersharing LPD queue list..... | 890 |
| ptrace Commands..... | 891 |
| ptrace action add..... | 892 |
| ptrace action delete..... | 893 |
| ptrace action list..... | 894 |
| ptrace action modify..... | 895 |
| ptrace add..... | 896 |
| ptrace debug traceconfig..... | 897 |
| ptrace delete..... | 898 |
| ptrace filter add..... | 899 |
| ptrace filter delete..... | 900 |
| ptrace filter list..... | 901 |
| ptrace filter modify..... | 902 |
| ptrace flush..... | 903 |
| ptrace list..... | 904 |
| ptrace modify..... | 905 |
| pwr Commands..... | 907 |
| pwr config..... | 908 |
| pwr debug traceconfig..... | 909 |
| pwr wlan-pwr-options..... | 910 |
| script Commands..... | 911 |
| script add..... | 912 |
| script delete..... | 913 |
| script flush..... | 914 |
| script list..... | 915 |
| script run..... | 916 |
| service Commands..... | 917 |
| service host add..... | 918 |
| service host assign..... | 919 |
| service host category add..... | 920 |
| service host category delete..... | 921 |
| service host category list..... | 922 |
| service host category rename..... | 923 |
| service host delete..... | 924 |
| service host disable..... | 925 |
| service host flush..... | 926 |
| service host list..... | 927 |
| service host rule add..... | 928 |
| service host rule delete..... | 930 |
| service host stats..... | 932 |
| service host triggerlist..... | 933 |

| | |
|----------------------------------|------------|
| service system ifadd..... | 934 |
| service system ifdelete..... | 935 |
| service system ipadd..... | 936 |
| service system ipdelete..... | 937 |
| service system list..... | 938 |
| service system mapadd..... | 939 |
| service system mapdelete..... | 940 |
| service system modify..... | 941 |
| snmp Commands..... | 943 |
| snmp community add..... | 946 |
| snmp community delete..... | 947 |
| snmp community flush..... | 948 |
| snmp community list..... | 949 |
| snmp community modify..... | 950 |
| snmp config..... | 951 |
| snmp context add..... | 952 |
| snmp context delete..... | 953 |
| snmp context flush..... | 954 |
| snmp context list..... | 955 |
| snmp get..... | 956 |
| snmp getnext..... | 957 |
| snmp group add..... | 958 |
| snmp group delete..... | 959 |
| snmp group flush..... | 960 |
| snmp group list..... | 961 |
| snmp group modify..... | 962 |
| snmp notify add..... | 963 |
| snmp notify delete..... | 964 |
| snmp notifyfilter add..... | 965 |
| snmp notifyfilter delete..... | 966 |
| snmp notifyfilter flush..... | 967 |
| snmp notifyfilter list..... | 968 |
| snmp notifyfilter modify..... | 969 |
| snmp notify flush..... | 970 |
| snmp notify list..... | 971 |
| snmp notify modify..... | 972 |
| snmp notifyprofile add..... | 973 |
| snmp notifyprofile delete..... | 974 |
| snmp notifyprofile flush..... | 975 |
| snmp notifyprofile list..... | 976 |
| snmp notifyprofile modify..... | 977 |
| snmp securitytogroup add..... | 978 |
| snmp securitytogroup delete..... | 979 |
| snmp securitytogroup flush..... | 980 |
| snmp securitytogroup list..... | 981 |
| snmp securitytogroup modify..... | 982 |
| snmp target add..... | 983 |
| snmp target delete..... | 985 |
| snmp target flush..... | 986 |
| snmp target list..... | 987 |
| snmp target modify..... | 988 |
| snmp targetparams add..... | 990 |
| snmp targetparams delete..... | 991 |
| snmp targetparams flush..... | 992 |

| | |
|----------------------------------|-------------|
| snmp targetparams list..... | 993 |
| snmp targetparams modify..... | 994 |
| snmp user add..... | 995 |
| snmp user delete..... | 996 |
| snmp user flush..... | 997 |
| snmp user list..... | 998 |
| snmp user modify..... | 999 |
| snmp view add..... | 1000 |
| snmp view delete..... | 1001 |
| snmp view flush..... | 1002 |
| snmp view list..... | 1003 |
| snmp view modify..... | 1004 |
| snmp walk..... | 1005 |
| sntp Commands..... | 1007 |
| sntp add..... | 1008 |
| sntp config..... | 1009 |
| sntp debug traceconfig..... | 1010 |
| sntp delete..... | 1011 |
| sntp flush..... | 1012 |
| sntp list..... | 1013 |
| sntp Server config..... | 1014 |
| software Commands..... | 1015 |
| software deletepassive..... | 1016 |
| software download..... | 1017 |
| software duplicate..... | 1018 |
| software switchover..... | 1019 |
| software upgrade..... | 1020 |
| software version..... | 1021 |
| statecheck Commands..... | 1023 |
| statecheck checkadd..... | 1024 |
| statecheck checkdelete..... | 1025 |
| statecheck config..... | 1026 |
| statecheck groupadd..... | 1027 |
| statecheck groupdelete..... | 1028 |
| statecheck list..... | 1029 |
| statecheck statecheckadd..... | 1030 |
| statecheck statecheckdelete..... | 1031 |
| syslog Commands..... | 1033 |
| syslog config..... | 1034 |
| syslog flush..... | 1035 |
| syslog list..... | 1036 |
| syslog msgbuf flush..... | 1037 |
| syslog msgbuf send..... | 1038 |
| syslog msgbuf show..... | 1039 |
| syslog ruleadd..... | 1040 |
| syslog ruledelete..... | 1041 |
| system Commands..... | 1043 |
| system config..... | 1044 |
| system debug autosave..... | 1045 |
| system debug cpu..... | 1046 |

| | |
|--------------------------------------|-------------|
| system debug mem..... | 1047 |
| system dst..... | 1048 |
| system flush..... | 1049 |
| system ipc config..... | 1050 |
| system ra config..... | 1051 |
| system ra instadd..... | 1052 |
| system ra instdelete..... | 1053 |
| system ra list..... | 1054 |
| system ra start..... | 1055 |
| system ra stop..... | 1056 |
| system reboot..... | 1057 |
| system reset..... | 1058 |
| system settime..... | 1059 |
| system timedreboot..... | 1060 |
| tls Commands..... | 1061 |
| tls acs-client cert add..... | 1062 |
| tls acs-client cert delete..... | 1063 |
| tls acs-client cert list..... | 1064 |
| tls acs-client config..... | 1065 |
| tls https-server cert add..... | 1066 |
| tls https-server cert delete..... | 1067 |
| tls https-server cert list..... | 1068 |
| tls https-server config..... | 1069 |
| tls remote-upgraded cert add..... | 1070 |
| tls remote-upgraded cert delete..... | 1071 |
| tls remote-upgraded cert list..... | 1072 |
| tls remote-upgraded config..... | 1073 |
| tls self cert list..... | 1074 |
| tunnel Commands..... | 1075 |
| tunnel 6in4 add..... | 1076 |
| tunnel 6in4 delete..... | 1077 |
| tunnel 6in4 flush..... | 1078 |
| tunnel 6in4 list..... | 1079 |
| tunnel 6in4 modify..... | 1080 |
| tunnel 6rd add..... | 1081 |
| tunnel 6rd delete..... | 1082 |
| tunnel 6rd flush..... | 1083 |
| tunnel 6rd list..... | 1084 |
| tunnel 6rd modify..... | 1085 |
| tunnel 6to4 add..... | 1086 |
| tunnel 6to4 delete..... | 1087 |
| tunnel 6to4 flush..... | 1088 |
| tunnel 6to4 list..... | 1089 |
| tunnel 6to4 modify..... | 1090 |
| tunnel dslite add..... | 1091 |
| tunnel dslite delete..... | 1092 |
| tunnel dslite flush..... | 1093 |
| tunnel dslite list..... | 1094 |
| tunnel dslite modify..... | 1095 |
| tunnel gre add..... | 1096 |
| tunnel gre delete..... | 1097 |
| tunnel gre flush..... | 1098 |
| tunnel gre list..... | 1099 |

| | |
|---------------------------------|-------------|
| tunnel gre modify..... | 1100 |
| tunnel list..... | 1101 |
| upgrade Commands..... | 1103 |
| upgrade config..... | 1104 |
| upgrade debug config..... | 1105 |
| upgrade image list..... | 1106 |
| upgrade image modify..... | 1107 |
| upgrade lastUpgradeInfo..... | 1108 |
| upnp Commands..... | 1109 |
| upnp config..... | 1110 |
| upnp debug nonce..... | 1111 |
| upnp debug traceconfig..... | 1112 |
| upnp flush..... | 1113 |
| upnp list..... | 1114 |
| upnp listmask..... | 1115 |
| user Commands..... | 1117 |
| user add..... | 1118 |
| user config..... | 1119 |
| user delete..... | 1120 |
| user flush..... | 1121 |
| user list..... | 1122 |
| user rights..... | 1123 |
| voice Commands..... | 1125 |
| voice cac config..... | 1130 |
| voice cac list..... | 1131 |
| voice calllist config..... | 1132 |
| voice calllist list..... | 1133 |
| voice codec amr config..... | 1134 |
| voice codec amr list..... | 1135 |
| voice codec config..... | 1136 |
| voice codec dynamic config..... | 1137 |
| voice codec dynamic list..... | 1138 |
| voice codec list..... | 1139 |
| voice config..... | 1140 |
| voice country config..... | 1142 |
| voice country countrylist..... | 1143 |
| voice country list..... | 1144 |
| voice debug exec..... | 1145 |
| voice dhcp config..... | 1146 |
| voice dhcp list..... | 1147 |
| voice dialplan add..... | 1148 |
| voice dialplan delete..... | 1149 |
| voice dialplan flush..... | 1150 |
| voice dialplan list..... | 1151 |
| voice dialplan modify..... | 1152 |
| voice dns config..... | 1153 |
| voice dns list..... | 1154 |
| voice fax config..... | 1155 |
| voice fax list..... | 1156 |
| voice fxoport config..... | 1157 |
| voice fxoport list..... | 1158 |

| | |
|---------------------------------------|------|
| voice fxsport config..... | 1159 |
| voice fxsport list..... | 1160 |
| voice list..... | 1161 |
| voice localmap add..... | 1162 |
| voice localmap delete..... | 1163 |
| voice localmap flush..... | 1164 |
| voice localmap list..... | 1165 |
| voice localmap modify..... | 1166 |
| voice localmap ports add..... | 1167 |
| voice localmap ports delete..... | 1168 |
| voice localmap ports flush..... | 1169 |
| voice numbertranslAC add..... | 1170 |
| voice numbertranslAC delete..... | 1171 |
| voice numbertranslAC flush..... | 1172 |
| voice numbertranslAC list..... | 1173 |
| voice numbtransl config..... | 1174 |
| voice numbtransl list..... | 1175 |
| voice pb add..... | 1176 |
| voice portmap add..... | 1177 |
| voice portmap delete..... | 1178 |
| voice portmap flush..... | 1179 |
| voice portmap list..... | 1180 |
| voice profile add..... | 1181 |
| voice profile delete..... | 1182 |
| voice profile flush..... | 1183 |
| voice profile list..... | 1184 |
| voice profile modify..... | 1185 |
| voice qos config..... | 1186 |
| voice qos list..... | 1187 |
| voice ringing descrtable add..... | 1188 |
| voice ringing descrtable delete..... | 1189 |
| voice ringing descrtable flush..... | 1190 |
| voice ringing descrtable list..... | 1191 |
| voice ringing descrtable modify..... | 1192 |
| voice ringing descrtable set..... | 1193 |
| voice ringing eventtable flush..... | 1194 |
| voice ringing eventtable list..... | 1195 |
| voice ringing eventtable modify..... | 1196 |
| voice ringing eventtable set..... | 1197 |
| voice ringing pattertable add..... | 1198 |
| voice ringing pattertable delete..... | 1199 |
| voice ringing pattertable flush..... | 1200 |
| voice ringing pattertable list..... | 1201 |
| voice ringing pattertable modify..... | 1202 |
| voice ringing pattertable set..... | 1203 |
| voice security config..... | 1204 |
| voice security list..... | 1205 |
| voice services 3gpp config..... | 1206 |
| voice services 3gpp list..... | 1207 |
| voice services activate..... | 1208 |
| voice services assign..... | 1209 |
| voice services assign_pxsc..... | 1210 |
| voice services config..... | 1211 |
| voice services deactivate..... | 1213 |
| voice services flush..... | 1214 |

| | |
|---------------------------------------|-------------|
| voice services list..... | 1215 |
| voice services provision..... | 1216 |
| voice services servicelist..... | 1217 |
| voice services soc config..... | 1218 |
| voice services soc list..... | 1219 |
| voice services soc modify..... | 1220 |
| voice services soc soclist..... | 1221 |
| voice services withdraw..... | 1222 |
| voice sip config..... | 1223 |
| voice sip inboundauth config..... | 1228 |
| voice sip inboundauth list..... | 1229 |
| voice sip list..... | 1230 |
| voice sip responsemap add..... | 1231 |
| voice sip responsemap delete..... | 1232 |
| voice sip responsemap flush..... | 1233 |
| voice sip responsemap list..... | 1234 |
| voice sip responsemap modify..... | 1235 |
| voice sip sdp annexa config..... | 1236 |
| voice sip sdp annexb config..... | 1237 |
| voice sip sdp config..... | 1238 |
| voice sip sdp list..... | 1239 |
| voice sip sdp silencesupp config..... | 1240 |
| voice sip sdp vad config..... | 1241 |
| voice state..... | 1242 |
| voice stats list..... | 1243 |
| voice stats reset..... | 1244 |
| voice tone descrtable add..... | 1245 |
| voice tone descrtable delete..... | 1246 |
| voice tone descrtable flush..... | 1247 |
| voice tone descrtable list..... | 1248 |
| voice tone descrtable modify..... | 1249 |
| voice tone eventtable flush..... | 1250 |
| voice tone eventtable list..... | 1251 |
| voice tone eventtable modify..... | 1252 |
| voice tone patterntable add..... | 1253 |
| voice tone patterntable delete..... | 1254 |
| voice tone patterntable flush..... | 1255 |
| voice tone patterntable list..... | 1256 |
| voice tone patterntable modify..... | 1257 |
| voice uamap add..... | 1258 |
| voice uamap delete..... | 1259 |
| voice uamap flush..... | 1260 |
| voice uamap list..... | 1261 |
| wansensing Commands..... | 1263 |
| wansensing config..... | 1264 |
| wansensing debug traceconfig..... | 1265 |
| wansensing flush..... | 1266 |
| wansensing list..... | 1267 |
| wansensing mode add..... | 1268 |
| wansensing mode delete..... | 1269 |
| wansensing mode list..... | 1270 |
| wansensing requestmode..... | 1271 |
| webserver Commands..... | 1273 |
| webserver ssl commonname add..... | 1274 |

| | |
|---------------------------------------|-------------|
| webserversslcommonname delete..... | 1275 |
| webserversslcommonname list..... | 1276 |
| wireless Commands..... | 1277 |
| wireless acs config..... | 1279 |
| wireless acs debug acsprofile..... | 1281 |
| wireless acs debug config..... | 1282 |
| wireless acs debug dumpacsmeas..... | 1283 |
| wireless acs rescan..... | 1284 |
| wireless acs scanhistory..... | 1285 |
| wireless acs scanreport..... | 1286 |
| wireless debug stats..... | 1287 |
| wireless debug traceconfig..... | 1288 |
| wireless debug txttest..... | 1289 |
| wireless macacl add..... | 1290 |
| wireless macacl config..... | 1291 |
| wireless macacl delete..... | 1292 |
| wireless macacl flush..... | 1293 |
| wireless macacl list..... | 1294 |
| wireless macacl modify..... | 1295 |
| wireless macacl register..... | 1296 |
| wireless mssid ifadd..... | 1297 |
| wireless mssid ifattach..... | 1298 |
| wireless mssid ifconfig..... | 1299 |
| wireless mssid ifdelete..... | 1301 |
| wireless mssid ifdetach..... | 1302 |
| wireless mssid iflist..... | 1303 |
| wireless qos apacconfig..... | 1304 |
| wireless qos config..... | 1305 |
| wireless qos staaconfig..... | 1306 |
| wireless radio..... | 1307 |
| wireless radius config..... | 1308 |
| wireless radius server config..... | 1309 |
| wireless reset..... | 1310 |
| wireless stations history config..... | 1311 |
| wireless stations history list..... | 1312 |
| wireless stations history reset..... | 1313 |
| wireless stations history save..... | 1314 |
| wireless stations list..... | 1315 |
| wireless wps config..... | 1316 |
| wireless wps pin..... | 1317 |
| xdsl Commands..... | 1319 |
| xdsl config..... | 1320 |
| xdsl debug bitloadinginfo..... | 1321 |
| xdsl debug deltconfig..... | 1322 |
| xdsl debug deltinfo..... | 1323 |
| xdsl debug modemooptioninfo..... | 1324 |
| xdsl debug multimode..... | 1325 |
| xdsl debug traceconfig..... | 1326 |
| xdsl info..... | 1327 |
| xdsl version..... | 1328 |

atm Commands

| | | |
|------------------------------|---|-------------|
| <i>atm cac config</i> | <i>Configure ATM connection admission control.</i> | see page 31 |
| <i>atm cac list</i> | <i>List all CAC parameters.</i> | see page 32 |
| <i>atm cac overbooking</i> | <i>Configure ATM overbooking parameters.</i> | see page 33 |
| <i>atm debug gstats</i> | <i>Display ATM global statistics.</i> | see page 34 |
| <i>atm debug stats</i> | <i>Display ATM interface statistics.</i> | see page 35 |
| <i>atm debug traceconfig</i> | <i>Display/Modify AAL5 debug trace configuration.</i> | see page 36 |
| <i>atm flush</i> | <i>Flush all ATM interfaces.</i> | see page 37 |
| <i>atm ifattach</i> | <i>Attach an ATM interface.</i> | see page 38 |
| <i>atm ifconfig</i> | <i>Modify an ATM interface.</i> | see page 39 |
| <i>atm ifdelete</i> | <i>Delete an ATM interface.</i> | see page 40 |
| <i>atm ifdetach</i> | <i>Detach an ATM interface.</i> | see page 41 |
| <i>atm iflist</i> | <i>Display the ATM interfaces.</i> | see page 42 |
| <i>atm oam cc list</i> | <i>Display CC configuration.</i> | see page 43 |
| <i>atm oam cc modify</i> | <i>Modify CC on the connection.</i> | see page 44 |
| <i>atm oam cc send</i> | <i>Send CC activate/deactivate to connection.</i> | see page 45 |
| <i>atm oam config</i> | <i>Modify the ATM OAM settings.</i> | see page 46 |
| <i>atm oam list</i> | <i>Display the ATM OAM settings.</i> | see page 47 |
| <i>atm oam modify</i> | <i>Modify the ATM OAM data blocking mode.</i> | see page 48 |
| <i>atm oam ping</i> | <i>Send ATM loopback cells.</i> | see page 49 |
| <i>atm oam vclb add</i> | <i>Create a loopback connection for VC</i> | see page 50 |
| <i>atm oam vclb del</i> | <i>Delete a loopback connection for VC</i> | see page 51 |
| <i>atm oam vclb list</i> | <i>List all VC loopback connections</i> | see page 52 |
| <i>atm phonebook add</i> | <i>Add a new phonebook entry.</i> | see page 53 |
| <i>atm phonebook delete</i> | <i>Delete a phonebook entry.</i> | see page 54 |
| <i>atm phonebook flush</i> | <i>Flush all phonebook entries.</i> | see page 55 |
| <i>atm phonebook list</i> | <i>Display the phonebook.</i> | see page 56 |
| <i>atm qosbook add</i> | <i>Add a new qosbook entry.</i> | see page 57 |
| <i>atm qosbook config</i> | <i>Modify the qosbook configuration.</i> | see page 58 |

| | | |
|-----------------------------|--|-------------|
| <i>atm qosbook ctadd</i> | <i>Add a new connection traffic descriptor.</i> | see page 59 |
| <i>atm qosbook ctdelete</i> | <i>Delete a connection traffic descriptor.</i> | see page 60 |
| <i>atm qosbook ctlist</i> | <i>Display all connection traffic descriptors.</i> | see page 61 |
| <i>atm qosbook delete</i> | <i>Delete a qosbook entry.</i> | see page 62 |
| <i>atm qosbook flush</i> | <i>Flush all qosbook entries.</i> | see page 63 |
| <i>atm qosbook list</i> | <i>Display the qosbook.</i> | see page 64 |
| <i>atm qos list</i> | <i>Display the Qos list.</i> | see page 65 |
| <i>atm qos queue config</i> | <i>Configure TX Queue entry.</i> | see page 66 |
| <i>atm qos queue list</i> | <i>Display the Qos list.</i> | see page 67 |

atm cac config

Configure ATM connection admission control.

SYNTAX:

```
atm cac config          port = <{ds10|ds11|atm2|atm3|aal5|atm5} or
                        number>
                        state = <{disabled|enabled}>
```

where:

| | | |
|-------|---------------------------------------|----------|
| port | The port for which CAC is configured. | REQUIRED |
| state | Enable/disable CAC for an ATM port. | REQUIRED |

atm cac list

List all CAC parameters.

atm cac overbooking

Configure ATM overbooking parameters.

SYNTAX:

```
atm cac overbooking          [rt = <number{0-1000}>]  
                             [nrt = <number{0-1000}>]
```

where:

| | | |
|-----|--|----------|
| rt | The realtime overbooking percentage. | OPTIONAL |
| nrt | The non-realtime overbooking percentage. | OPTIONAL |

atm debug gstats

Display ATM global statistics.

SYNTAX:

```
atm debug gstats [clear = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------------------|----------|
| clear | Clear the statistics after request. | OPTIONAL |
|-------|-------------------------------------|----------|

atm debug stats

Display ATM interface statistics.

SYNTAX:

```
atm debug stats [intf = <{atm_Internet}>]
                [clear = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------------------|----------|
| intf | The name of the ATM interface. | OPTIONAL |
| clear | Clear the statistics after request. | OPTIONAL |

atm debug traceconfig

Display/Modify AAL5 debug trace configuration.

SYNTAX:

```
atm debug traceconfig      [len = <number>]
                           [intf = <{atm_Internet}>]
                           [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|---|----------|
| len | Maximum number of AAL5 payload bytes that will be shown (0-2000, global setting). | OPTIONAL |
| intf | The name of the ATM interface to configure. | OPTIONAL |
| state | Enable/disable AAL5 debug tracing. | OPTIONAL |

atm flush

Flush all ATM interfaces.

atm ifattach

Attach an ATM interface.

SYNTAX:

```
atm ifattach          intf = <{}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the ATM interface. | REQUIRED |
|------|--------------------------------|----------|

atm ifconfig

Modify an ATM interface.

SYNTAX:

```
atm ifconfig          intf = <{atm_Internet}>
                    [dest = <{}>]
                    [qos = <{default}>]
                    [clp = <{0|1|classification}>]
                    [clpthresh = <number{0-15}>]
                    [encaps = <{llc|vcmux}>]
                    [fcs = <{disabled|enabled|auto}>]
                    [ulp = <{mac|ip|ppp}>]
                    [mtu = <number{1536-2016}>]
                    [retry = <number{0-65535}>]
```

where:

| | | |
|-----------|--|----------|
| intf | The name of the ATM interface to configure. | REQUIRED |
| dest | The WAN destination for this ATM interface. Typically, a phonebook entry. | OPTIONAL |
| qos | The name of a qosbook entry defining the QoS parameters for the WAN link. | OPTIONAL |
| clp | The mode used to determine the CLP bit value. | OPTIONAL |
| clpthresh | Priority class threshold where CLP becomes 0 (for all classes >= threshold). | OPTIONAL |
| encaps | The WAN protocol encapsulation to be used on this interface. | OPTIONAL |
| fcs | Whether or not to include the Ethernet FCS in the packet header (only used for llc encapsulation for mac). | OPTIONAL |
| ulp | The upper layer protocol. | OPTIONAL |
| mtu | The MTU size for this ATM interface. | OPTIONAL |
| retry | The number of times the WAN connection setup should retry before giving up. | OPTIONAL |

atm ifdelete

Delete an ATM interface.

SYNTAX:

```
atm ifdelete          intf = <{}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the ATM interface. | REQUIRED |
|------|--------------------------------|----------|

atm ifdetach

Detach an ATM interface.

SYNTAX:

```
atm ifdetach          intf = <{}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the ATM interface. | REQUIRED |
|------|--------------------------------|----------|

atm iflist

Display the ATM interfaces.

SYNTAX:

```
atm iflist [intf = <{atm_Internet}>]
```

where:

| | | |
|------|-------------------------------|----------|
| intf | The name of an ATM interface. | OPTIONAL |
|------|-------------------------------|----------|

atm oam cc list

Display CC configuration.

atm oam cc modify

Modify CC on the connection.

SYNTAX:

```
atm oam cc modify          port = <{dsl10|dsl11|atm2|atm3|aal5|atm5} or
                             number>
                             vpi = <number{0-31}>
                             [vci = <number{0-511}>]
                             [transmit = <{disabled|enabled}>]
                             [receive = <{disabled|enabled}>]
                             [auto = <{disabled|enabled}>]
                             [span = <{segment|end2end}>]
```

where:

| | | |
|----------|---|----------|
| port | The ATM port number. | REQUIRED |
| vpi | The Virtual Path Identifier. | REQUIRED |
| vci | The Virtual Channel Identifier. | OPTIONAL |
| transmit | Enable/disable transmission of CC cells. | OPTIONAL |
| receive | Enable/disable loss of continuity. | OPTIONAL |
| auto | Enable/disable remote CC activation/deactivation. | OPTIONAL |
| span | End2end or segment continuity check. | OPTIONAL |

atm oam cc send

Send CC activate/deactivate to connection.

SYNTAX:

```
atm oam cc send          port = <{ds10|ds11|atm2|atm3|aal5|atm5} or
                          number>
                          vpi = <number{0-31}>
                          [vci = <number{0-511}>]
                          [span = <{segment|end2end}>]
                          [action = <{activate|deactivate}>]
                          [direction = <{source|sink|both}>]
```

where:

| | | |
|-----------|---------------------------------------|----------|
| port | The ATM port number. | REQUIRED |
| vpi | The Virtual Path Identifier. | REQUIRED |
| vci | The Virtual Channel Identifier. | OPTIONAL |
| span | Send CC action end2end or segment. | OPTIONAL |
| action | The CC action. | OPTIONAL |
| direction | Source, sink or both (default: both). | OPTIONAL |

atm oam config

Modify the ATM OAM settings.

SYNTAX:

```
atm oam config          [clp = <number{0-1}>]  
                        [loopbackid = <string>]
```

where:

| | | |
|------------|--|----------|
| clp | The CLP bit value of the OAM cells. | OPTIONAL |
| loopbackid | The loopback id (hexadecimal string) for processing of segment loopback cells. | OPTIONAL |

atm oam list

Display the ATM OAM settings.

atm oam modify

Modify the ATM OAM data blocking mode.

SYNTAX:

```
atm oam modify          port = <{ds10|ds11|atm2|atm3|aal5|atm5} or  
                        number>  
                        blocking = <{disabled|enabled}>
```

where:

| | | |
|----------|--|----------|
| port | The port for which OAM blocking is configured. | REQUIRED |
| blocking | Enable/disable OAM blocking. | REQUIRED |

atm oam ping

Send ATM loopback cells.

SYNTAX:

```
atm oam ping                dest = <{atm_pvc_8_35}>
                             [count = <number{1-1000000}>]
                             [interval = <number{100-1000000}>]
```

where:

| | | |
|----------|---|----------|
| dest | The destination address for the request. | REQUIRED |
| count | The number of pings to send. | OPTIONAL |
| interval | The interval in milliseconds between packets. | OPTIONAL |

atm oam vclb add

Create a loopback connection for VC

SYNTAX:

```
atm oam vclb add          port = <{ds10|ds11|atm2|atm3|aal5|atm5} or
                           number>
                           vpi = <number{0-31}>
                           [vci = <number{0-511}>]
```

where:

| | | |
|------|---------------------------------|----------|
| port | The ATM port number. | REQUIRED |
| vpi | The Virtual Path Identifier. | REQUIRED |
| vci | The Virtual Channel Identifier. | OPTIONAL |

atm oam vclb del

Delete a loopback connection for VC

SYNTAX:

```
atm oam vclb del          port = <{ds10|ds11|atm2|atm3|aal5|atm5} or
                           number>
                           vpi = <number{0-31}>
                           [vci = <number{0-511}>]
```

where:

| | | |
|------|---------------------------------|----------|
| port | The ATM port number. | REQUIRED |
| vpi | The Virtual Path Identifier. | REQUIRED |
| vci | The Virtual Channel Identifier. | OPTIONAL |

atm oam vclb list

List all VC loopback connections

atm phonebook add

Add a new phonebook entry.

SYNTAX:

```
atm phonebook add          name = <string>
                           addr = <atmchannel : PVC syntax is
                           [port.]vpi.vci port=ds10|ds11|...>
```

where:

| | | |
|------|--|----------|
| name | The phonebook name for this destination. | REQUIRED |
| addr | The address for this destination. | REQUIRED |

atm phonebook delete

Delete a phonebook entry.

SYNTAX:

```
atm phonebook delete          name = <{ }>
```

where:

| | | |
|------|--------------------------------------|----------|
| name | The name of the phonebook to delete. | REQUIRED |
|------|--------------------------------------|----------|

atm phonebook flush

Flush all phonebook entries.

atm phonebook list

Display the phonebook.

atm qosbook add

Add a new qosbook entry.

SYNTAX:

```
atm qosbook add          name = <string>
                          [txctd = <{default}>]
                          [rxctd = <{default}>]
```

where:

| | | |
|-------|---|----------|
| name | The name for the new QoS entry. | REQUIRED |
| txctd | The name of the CTD for transmit (upstream) direction. | OPTIONAL |
| rxctd | The name of the CTD for receive (downstream) direction. | OPTIONAL |

atm qosbook config

Modify the qosbook configuration.

SYNTAX:

```
atm qosbook config [format = <{bytes|cells}>]
```

where:

| | | |
|--------|--|----------|
| format | The input, output format of the qosbook. | OPTIONAL |
|--------|--|----------|

atm qosbook ctdadd

Add a new connection traffic descriptor.

SYNTAX:

```
atm qosbook ctdadd          name = <string>
                           conformance = <{UBR|CBR|VBR|UBR.1|UBR.2|
                           UBR.mdc|CBR.1|VBR.1|VBR.2|VBR.3|VBR.c|VBR.nt|
                           VBR.t|GFR.1|GFR.2}>
                           [peakrate = <number{0-27786}>]
                           [sustrate = <number{0-27786}>]
                           [maxburst = <number{48-12240}>]
                           [minrate = <number{0-27786}>]
                           [maxframe = <number{0-255}>]
                           [celldelay = <number>]
                           [realtime = <{enabled|disabled}>]
                           [framediscard = <{enabled|disabled}>]
```

where:

| | | |
|--------------|---|----------|
| name | The name for the new CTD entry. | REQUIRED |
| conformance | The ATM service conformance definition. | REQUIRED |
| peakrate | The peak rate (in kilobits per second). Use '0' to indicate linerate for UBR. | OPTIONAL |
| sustrate | The sustainable rate (in kilobits per second). (VBR only) | OPTIONAL |
| maxburst | The maximum burst size (in bytes). (VBR or GFR) | OPTIONAL |
| minrate | The minimum rate (in kilobits per second). (UBR.m or GFR) | OPTIONAL |
| maxframe | The maximum frame size (in bytes). (GFR only) | OPTIONAL |
| celldelay | Cell delay variation in tenths of microseconds. | OPTIONAL |
| realtime | Enable/disable realtime traffic (VBR only). | OPTIONAL |
| framediscard | Enable/disable frame discard. | OPTIONAL |

atm qosbook ctdelete

Delete a connection traffic descriptor.

SYNTAX:

```
atm qosbook ctdelete      name = <{default}>
                           [force = <{disabled|enabled}>]
```

where:

| | | |
|-------|---|----------|
| name | The name of the CTD entry to delete. | REQUIRED |
| force | Force delete even when the entry is still in use. | OPTIONAL |

atm qosbook ctdlist

Display all connection traffic descriptors.

atm qosbook delete

Delete a qosbook entry.

SYNTAX:

```
atm qosbook delete          name = <{default}>
                             [force = <{disabled|enabled}>]
```

where:

| | | |
|-------|---|----------|
| name | The name of the qosbook entry to delete. | REQUIRED |
| force | Force delete even when the entry is still in use. | OPTIONAL |

atm qosbook flush

Flush all qosbook entries.

atm qosbook list

Display the qosbook.

atm qos list

Display the Qos list.

SYNTAX:

```
atm qos list [intf = <{bridge}>]
```

where:

| | | |
|------|---|----------|
| intf | The name of the ATM interface to configure. | OPTIONAL |
|------|---|----------|

atm qos queue config

Configure TX Queue entry.

SYNTAX:

```
atm qos queue config      qname = <{queue_a0}>
                          weight = <number{0-64}>
                          maxpackets = <number{0-2500}>
                          loprio = <number{0-15}>
                          hiprio = <number{0-15}>
```

where:

| | | |
|------------|---|----------|
| qname | The name of the Transmit Queue. | REQUIRED |
| weight | Weight value of the chosen weight algorithm. | REQUIRED |
| maxpackets | The maximum number of packets in the queues. | REQUIRED |
| loprio | The lowest internal priority boundary for entering this queue. | REQUIRED |
| hiprio | The highest internal priority boundary for entering this queue. | REQUIRED |

atm qos queue list

Display the Qos list.

SYNTAX:

```
atm qos queue list [intf = <{strict|cwrr|pwrr|wfg}>]
```

where:

| | | |
|------|---|----------|
| intf | The name of the ATM interface to configure. | OPTIONAL |
|------|---|----------|

config Commands

| | | |
|----------------------|---|-------------|
| <i>config delete</i> | <i>Delete a user configuration file.</i> | see page 70 |
| <i>config dump</i> | <i>Show the saved configuration file</i> | see page 71 |
| <i>config flush</i> | <i>Flush the loaded configuration.</i> | see page 72 |
| <i>config list</i> | <i>Show the current configuration set</i> | see page 73 |
| <i>config load</i> | <i>Load saved or default configuration.</i> | see page 74 |
| <i>config save</i> | <i>Store current configuration to backup file</i> | see page 75 |

config delete

Delete a user configuration file.

SYNTAX:

```
config delete [filename = <user configuration filename>]
```

where:

| | | |
|----------|-----------------------------|----------|
| filename | configuration file to erase | OPTIONAL |
|----------|-----------------------------|----------|

config dump

Show the saved configuration file

config flush

Flush the loaded configuration.

SYNTAX:

```
config flush [flush_ip = <{enabled|disabled}>]
```

where:

| | | |
|----------|---------------------------|----------|
| flush_ip | Flush IP settings or not. | OPTIONAL |
|----------|---------------------------|----------|

config list

Show the current configuration set

SYNTAX:

```
config list [templates = <{disabled|enabled}>]
```

where:

| | | |
|-----------|---------------------|----------|
| templates | list template files | OPTIONAL |
|-----------|---------------------|----------|

config load

Load saved or default configuration.

SYNTAX:

```
config load [load_ip = <{enabled|disabled}>]
            [defaults = <{disabled|enabled}>]
            [flush = <{enabled|disabled}>]
            [echo = <{disabled|enabled}>]
            [filename = <string>]
```

where:

| | | |
|----------|---|----------|
| load_ip | Load IP settings or not. | OPTIONAL |
| defaults | Load default instead of saved configuration. | OPTIONAL |
| flush | Flush current configuration before loading new one. | OPTIONAL |
| echo | Echo each command string when loaded. | OPTIONAL |
| filename | Configuration filename. | OPTIONAL |

config save

Store current configuration to backup file

SYNTAX:

```
config save filename = <user configuration filename>
```

where:

| | | |
|----------|--|----------|
| filename | Filename for backupfile of current configuration | REQUIRED |
|----------|--|----------|

connection Commands

| | | |
|--|---|--------------|
| <i>connection appconfig</i> | <i>Modify a CONN/NAT application helper configuration</i> | see page 79 |
| <i>connection appinfo</i> | <i>Display CONN/NAT application specific info</i> | see page 80 |
| <i>connection applist</i> | <i>Display the available CONN/NAT application helpers.</i> | see page 81 |
| <i>connection bind</i> | <i>Create a CONN/NAT application helper/port binding.</i> | see page 82 |
| <i>connection bindblacklist add</i> | <i>Add bind blacklist entry.</i> | see page 83 |
| <i>connection bindblacklist delete</i> | <i>Delete bind blacklist entry.</i> | see page 84 |
| <i>connection bindblacklist list</i> | <i>List all bind blacklist entries.</i> | see page 85 |
| <i>connection bindlist</i> | <i>Display the CONN/NAT application helper/port bindings.</i> | see page 86 |
| <i>connection clean</i> | <i>Clean connection database by forcing timeouts.</i> | see page 87 |
| <i>connection clear</i> | <i>Kill all connections.</i> | see page 88 |
| <i>connection config</i> | <i>Modify global connection configuration.</i> | see page 89 |
| <i>connection debug</i> | <i>Connection debug commands.</i> | see page 90 |
| <i>connection describe</i> | <i>Describe the streams of a connection.</i> | see page 91 |
| <i>connection flow add</i> | <i>Add flow</i> | see page 92 |
| <i>connection flow delete</i> | <i>Delete flow</i> | see page 93 |
| <i>connection flow flush</i> | <i>Flush flow configuration</i> | see page 94 |
| <i>connection flow list</i> | <i>List all flows</i> | see page 95 |
| <i>connection flow qoslabeladd</i> | <i>Assign qos label to flow</i> | see page 96 |
| <i>connection flow qoslabeldel</i> | <i>Remove qos label from flow</i> | see page 97 |
| <i>connection flush</i> | <i>Flush the connection configuration.</i> | see page 98 |
| <i>connection info</i> | <i>Display all modules with some info.</i> | see page 99 |
| <i>connection list</i> | <i>Display the currently known connections.</i> | see page 100 |
| <i>connection refresh</i> | <i>Invalidate all cached decisions.</i> | see page 101 |
| <i>connection release</i> | <i>Release connections.</i> | see page 102 |
| <i>connection reserve</i> | <i>Reserve connections.</i> | see page 103 |
| <i>connection stats</i> | <i>Display connection and stream statistics.</i> | see page 104 |

| | | |
|-------------------------------|---|--------------|
| <i>connection timerclear</i> | <i>Clear connection timeout to default.</i> | see page 105 |
| <i>connection timerconfig</i> | <i>Modify connection timeout handling.</i> | see page 106 |
| <i>connection unbind</i> | <i>Delete a CONN/NAT application helper/port binding.</i> | see page 107 |

connection appconfig

Modify a CONN/NAT application helper configuration

SYNTAX:

```
connection appconfig          application = <{PPTP|AH|ESP|IKE|SIP|JABBER|CU/
                             SeeMe|RAUDIO(PNA)|RTSP|ILS|FTP}>
                             [trace = <{disabled|enabled}>]
                             [timeout = <number{0-32000}>]
                             [childqos = <{None|Interactive|Local|
                             Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                             VoIP-Signal|default}>]
                             [floating = <{disabled|enabled}>]
                             [proxy = <{disabled|enabled}>]
                             [tracelevel = <number{1-4}>]
                             [snooping = <{disabled|enabled}>]
                             [translate-predict = <{disabled|enabled}>]
```

where:

| | | |
|-------------------|--|----------|
| application | The name of a CONN/NAT application helper as listed by 'connection applist'. | REQUIRED |
| trace | Enable/disable CONN/NAT application helper traces. | OPTIONAL |
| timeout | The maximum timeout in seconds to keep predicted child connections around. | OPTIONAL |
| childqos | Used QOS label for the predicted child connections. | OPTIONAL |
| floating | Enable/disable floating port for IKE helper. | OPTIONAL |
| proxy | Enable/disable FTP proxy support. | OPTIONAL |
| tracelevel | 1=feature errors; 2=feature traces; 3=all errors; 4=all traces. | OPTIONAL |
| snooping | SIP only: Enable/disable snooping | OPTIONAL |
| translate-predict | SIP only: Enable/disable prediction | OPTIONAL |

connection appinfo

Display CONN/NAT application specific info

SYNTAX:

```
connection appinfo          application = <{PPTP|AH|ESP|IKE|SIP|JABBER|CU/
                             SeeMe|RAUDIO(PNA)|RTSP|ILS|FTP}>
```

where:

| | | |
|-------------|--|----------|
| application | The name of a CONN/NAT application helper as listed by 'connection applist'. | REQUIRED |
|-------------|--|----------|

connection applist

Display the available CONN/NAT application helpers.

connection bind

Create a CONN/NAT application helper/port binding.

SYNTAX:

```
connection bind          application = <{PPTP|AH|ESP|IKE|SIP|JABBER|CU/
                        SeeMe|RAUDIO(PNA)|RTSP|ILS|FTP}>
                        [ipversion = <{any|4|6}>]
                        [port = <port-range>]
```

where:

| | | |
|-------------|--|----------|
| application | The name of a CONN/NAT application helper as listed by 'connection applist'. | REQUIRED |
| ipversion | The IP version this application handler should work on. | OPTIONAL |
| port | The port number or range this application handler should work on. | OPTIONAL |

connection bindblacklist add

Add bind blacklist entry.

SYNTAX:

```
connection bindblacklist add    ip = <ip-address>
                                [proto = <{ah|egp|esp|gpp|gre|hmp|icmp|icmpv6|
                                igmp|pup|rdp|rsvp|tcp|udp|vines|xns-idp|ipv6|
                                ipip|frag} or number>]
                                [port = <port-range>]
```

where:

| | | |
|-------|---------------------------------------|----------|
| ip | The source or destination IP address. | REQUIRED |
| proto | The IP protocol (name or number). | OPTIONAL |
| port | The port number or range. | OPTIONAL |

connection bindblacklist delete

Delete bind blacklist entry.

SYNTAX:

```
connection bindblacklist      ip = <ip-address>
delete                        [proto = <{ah|egp|esp|gpp|gre|hmp|icmp|icmpv6|
                              igmp|pup|rdp|rsvp|tcp|udp|vines|xns-idp|ipv6|
                              ipip|frag} or number>]
                              [port = <port-range>]
```

where:

| | | |
|-------|---------------------------------------|----------|
| ip | The source or destination IP address. | REQUIRED |
| proto | The IP protocol (name or number). | OPTIONAL |
| port | The port number or range. | OPTIONAL |

connection bindblacklist list

List all bind blacklist entries.

connection bindlist

Display the CONN/NAT application helper/port bindings.

connection clean

Clean connection database by forcing timeouts.

SYNTAX:

```
connection clean [level = <number{0-9}>]
```

where:

| | | |
|-------|------------------|----------|
| level | Scrubbing level. | OPTIONAL |
|-------|------------------|----------|

connection clear

Kill all connections.

connection config

Modify global connection configuration.

SYNTAX:

```
connection config          [configchangemode = <{immediate|delayed}>]
                           [probes = <{disabled|enabled}>]
                           [udptrackmode = <{strict|loose}>]
                           [safepredicts = <{disabled|enabled}>]
```

where:

| | | |
|------------------|---|----------|
| configchangemode | Select how config changes are handled. | OPTIONAL |
| probes | Enable/disable alive probes on idle connections. | OPTIONAL |
| udptrackmode | UDP connection tracking mode. | OPTIONAL |
| safepredicts | Enable/disable safe CONN/NAT application helper predictions (predicted connection must have same IP addresses as its parent). | OPTIONAL |

connection debug

Connection debug commands.

SYNTAX:

```
connection debug [trace = <{disabled|enabled}>]
```

where:

| | | |
|-------|------------------------|----------|
| trace | Enable/disable traces. | OPTIONAL |
|-------|------------------------|----------|

connection describe

Describe the streams of a connection.

SYNTAX:

```
connection describe          id = <number{0-4095}>
```

where:

| | | |
|----|--------------------------------|----------|
| id | The connection ID to describe. | REQUIRED |
|----|--------------------------------|----------|

connection flow add

Add flow

SYNTAX:

```
connection flow add [name = <string>]
```

where:

| | | |
|------|------------|----------|
| name | Flow name. | OPTIONAL |
|------|------------|----------|

connection flow delete

Delete flow

SYNTAX:

```
connection flow delete [flow = <{Local-Management|VoIP-terminated|}>]
```

where:

| | | |
|------|------------|----------|
| flow | Flow name. | OPTIONAL |
|------|------------|----------|

connection flow flush

Flush flow configuration

connection flow list

List all flows

connection flow qoslabeladd

Assign qos label to flow

SYNTAX:

```
connection flow qoslabeladd [flow = <{Local-Management|VoIP-terminated|}>]
                             [qoslabel = <{None|Interactive|Local|
                             Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                             VoIP-Signal|default}>]
```

where:

| | | |
|----------|-----------------|----------|
| flow | Flow name. | OPTIONAL |
| qoslabel | Qos label name. | OPTIONAL |

connection flow qoslabeldel

Remove qos label from flow

SYNTAX:

```
connection flow qoslabeldel [flow = <{Local-Management|VoIP-terminated}>]
                             [qoslabel = <{None|Interactive|Local|
                             Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                             VoIP-Signal|default}>]
```

where:

| | | |
|----------|-----------------|----------|
| flow | Flow name. | OPTIONAL |
| qoslabel | Qos label name. | OPTIONAL |

connection flush

Flush the connection configuration.

connection info

Display all modules with some info.

connection list

Display the currently known connections.

SYNTAX:

```

connection list [id = <number{0-4095}>]
                [nr = <number{1-4096}>]
                [history = <{disabled|enabled}>]
                [proto = <{ah|egp|esp|gpp|gre|hmp|icmp|icmpv6|
                igmp|pup|rdp|rsvp|tcp|udp|vines|xns-idp|ipv6|
                ipip|frag} or number>]
                [ip = <ip-range>]
                [port = <port-range>]
                [intf = <{loop|Internet|LocalNetwork|loop|
                Internet|LocalNetwork}>]
                [routelabel = <{None|Interactive|Local|
                Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                VoIP-Signal|default}>]
                [qoslabel = <{None|Interactive|Local|
                Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                VoIP-Signal|default}>]
                [application = <{PPTP|AH|ESP|IKE|SIP|JABBER|
                CU/SeeMe|RAUDIO(PNA)|RTSP|ILS|FTP}>]
                [reserved = <{false|true}>]
                [accelerated = <{false|true}>]
                [prioritized = <{false|true}>]
    
```

where:

| | | |
|-------------|---|----------|
| id | The connection ID. | OPTIONAL |
| nr | The maximum number of connections to display (30 by default). | OPTIONAL |
| history | If enabled, show history. | OPTIONAL |
| proto | The IP protocol (name or number). | OPTIONAL |
| ip | The IP address or range. | OPTIONAL |
| port | The port number or range. | OPTIONAL |
| intf | The IP interface name. | OPTIONAL |
| routelabel | The route label name. | OPTIONAL |
| qoslabel | The QoS label name. | OPTIONAL |
| application | The name of CONN/NAT application helper. | OPTIONAL |
| reserved | Filter on "R" connection flag . | OPTIONAL |
| accelerated | Filter on "A" stream flag. | OPTIONAL |
| prioritized | Filter on "P" stream flag. | OPTIONAL |

connection refresh

Invalidate all cached decisions.

connection release

Release connections.

SYNTAX:

```
connection release [flow = <{Local-Management|VoIP-terminated|}>]
```

where:

| | | |
|------|------------|----------|
| flow | Flow name. | OPTIONAL |
|------|------------|----------|

connection reserve

Reserve connections.

SYNTAX:

```
connection reserve          [flow = <{Local-Management|VoIP-terminated|}>]
                           [amount = <number>]
```

where:

| | | |
|--------|---|----------|
| flow | Flow name. | OPTIONAL |
| amount | Number of connections to reserve for this flow. | OPTIONAL |

connection stats

Display connection and stream statistics.

connection timerclear

Clear connection timeout to default.

SYNTAX:

```
connection timerclear [timer = <{tcpidle|tcpneg|tcpkill|udpidle|
udpkill|icmpidle|icmpkill|fragidle|fragkill|
ipidle|ipkill}>]
```

where:

| | | |
|-------|--|----------|
| timer | The name of the connection idle timer. | OPTIONAL |
|-------|--|----------|

connection timerconfig

Modify connection timeout handling.

SYNTAX:

```
connection timerconfig      [timer = <{tcpidle|tcpneg|tcpkill|udpidle|
                             udpkill|icmpidle|icmpkill|fragidle|fragkill|
                             ipidle|ipkill}>]
                             [value = <number{0-86400}>]
```

where:

| | | |
|-------|--|----------|
| timer | The name of the connection idle timer. | OPTIONAL |
| value | The timer expire value in seconds. | OPTIONAL |

connection unbind

Delete a CONN/NAT application helper/port binding.

SYNTAX:

```
connection unbind          application = <{PPTP|AH|ESP|IKE|SIP|JABBER|CU/
                           SeeMe|RAUDIO(PNA)|RTSP|ILS|FTP}>
                           [ipversion = <{any|4|6}>]
                           [port = <port-range>]
```

where:

| | | |
|-------------|--|----------|
| application | The name of a CONN/NAT application helper as listed by 'connection applist'. | REQUIRED |
| ipversion | The IP version this application handler should work on. | OPTIONAL |
| port | The port number or range this application handler should work on. | OPTIONAL |

contentsharing Commands

| | | |
|--|--|--------------|
| <i>contentsharing cifs config</i> | <i>To set CIFS service name, to define CIFS service workgroup and to</i> | see page 110 |
| <i>contentsharing cifs list</i> | <i>To display CIFS service context.</i> | see page 111 |
| <i>contentsharing ftp config</i> | <i>To enable/disable FTP service.</i> | see page 112 |
| <i>contentsharing ftp list</i> | <i>To display FTP service context.</i> | see page 113 |
| <i>contentsharing upnpav config</i> | <i>To enable/disable UPnPAV service, to set the friendly name.</i> | see page 114 |
| <i>contentsharing upnpav list</i> | <i>To display UPnPAV service context.</i> | see page 115 |
| <i>contentsharing upnpav radiostation config</i> | <i>To enable/disable radiostations service.</i> | see page 116 |
| <i>contentsharing upnpav radiostation list</i> | <i>To display radiostations service context.</i> | see page 117 |
| <i>contentsharing upnpav radiostation station add</i> | <i>Add an option.</i> | see page 118 |
| <i>contentsharing upnpav radiostation station delete</i> | <i>Delete an option.</i> | see page 119 |
| <i>contentsharing upnpav radiostation station list</i> | <i>List all options.</i> | see page 120 |

contentsharing cifs config

To set CIFS service name, to define CIFS service workgroup and to

SYNTAX:

```
contentsharing cifs config    [state = <{enabled|disabled}>]
                             [workgroup = <quoted string>]
                             [name = <quoted string>]
                             [comment = <quoted string>]
```

where:

| | | |
|-----------|--------------------------------|----------|
| state | Enabled/disabled CIFS service. | OPTIONAL |
| workgroup | CIFS workgroup definition. | OPTIONAL |
| name | CIFS service name. | OPTIONAL |
| comment | CIFS service description. | OPTIONAL |

contentsharing cifs list

To display CIFS service context.

contentsharing ftp config

To enable/disable FTP service.

SYNTAX:

```
contentsharing ftp config [state = <{enabled|disabled}>]
```

where:

| | | |
|-------|-------------------------------|----------|
| state | Enabled/disabled FTP service. | OPTIONAL |
|-------|-------------------------------|----------|

contentsharing ftp list

To display FTP service context.

contentsharing upnpav config

To enable/disable UPnPAV service, to set the friendly name.

SYNTAX:

```
contentsharing upnpav config [state = <{enabled|disabled}>]
                             [friendlyname = <quoted string>]
```

where:

| | | |
|--------------|--------------------------------|----------|
| state | Enable/disable UPnPAV service. | OPTIONAL |
| friendlyname | upnpav friendly name. | OPTIONAL |

contentsharing upnpav list

To display UPnP AV service context.

contentsharing upnpav radiostation config

To enable/disable radiostations service.

SYNTAX:

```
contentsharing upnpav          [state = <{disabled|enabled}>]
radiostation config
```

where:

| | | |
|-------|---|----------|
| state | Enabled/disabled radiostations service. | OPTIONAL |
|-------|---|----------|

contentsharing upnpav radiostation list

To display radiostations service context.

contentsharing upnpav radiostation station add

Add an option.

SYNTAX:

```
contentsharing upnpav      name = <string>
radiostation station add  url = <string>
```

where:

| | | |
|------|---------------|----------|
| name | station name. | REQUIRED |
| url | station url | REQUIRED |

contentsharing upnpav radiostation station delete

Delete an option.

SYNTAX:

```
contentsharing upnpav          name = <string>  
radiostation station delete
```

where:

| | | |
|------|---------------|----------|
| name | station name. | REQUIRED |
|------|---------------|----------|

contentsharing upnpav radiostation station list

List all options.

cwmp Commands

| | | |
|-------------------------------|--|--------------|
| <i>cwmp config</i> | <i>Configure the cwmpd as seen from the ACS.</i> | see page 122 |
| <i>cwmp debug traceconfig</i> | <i>Enable or disable tracing.</i> | see page 124 |
| <i>cwmp server config</i> | <i>Configure the cwmpd towards the ACS.</i> | see page 125 |

cwmp config

Configure the cwmpd as seen from the ACS.

SYNTAX:

```

cwmp config [state = <{disabled|enabled}>]
            [mode = <{read-only|full}>]
            [periodicInform = <{disabled|enabled}>]
            [periodicInfInt = <number>]
            [periodicInfTime = <string>]
            [sessionTimeout = <number>]
            [noIpTimeout = <number>]
            [maxEnvelopes = <number>]
            [connectionRequest = <{disabled|enabled}>]
            [connectionReqPath = <string>]
            [connectionReqUserName = <quoted string>]
            [connectionReqPsswd = <password>]
            [connectionReqAuth = <{none|basic|digest}>]
            [bootdelayrange = <number>]
            [upgradedelay = <{disabled|enabled}>]
            [delaytimeoutaction = <{force|cancel}>]
            [amlTermination = <{disabled|enabled}>]
            [persistentSubscription = <{disabled|
enabled}>]
            [connectionReqThrotNumber = <number>]
            [connectionReqThrotTime = <number>]
            [showPasswords = <{disabled|enabled}>]
            [urlSource = <{none}>]

```

where:

| | | |
|-------------------|---|----------|
| state | The state of the cwmp daemon. | OPTIONAL |
| mode | Set the operation mode of the cwmp daemon. | OPTIONAL |
| periodicInform | Set periodicInform flag of the cwmp daemon. | OPTIONAL |
| periodicInfInt | Set the interval between two periodicInform messages in seconds. | OPTIONAL |
| periodicInfTime | Set the UTC time the periodic inform will be synchronized upon. | OPTIONAL |
| sessionTimeout | Set HTTP session-timeout in seconds. | OPTIONAL |
| noIpTimeout | Set time (in seconds) ip may be 0 after uploading new config file. Modem will step back to old configuration when timeout is reached. | OPTIONAL |
| maxEnvelopes | Set the maximum number of SOAP envelopes send within one http-message. | OPTIONAL |
| connectionRequest | Set connection request flag of the cwmp daemon. | OPTIONAL |
| connectionReqPath | Set the path where the cwmp daemon can be reached. | OPTIONAL |

| | | |
|--------------------------|--|----------|
| connectionReqUserName | Set the username the ACS must use to log in. | OPTIONAL |
| connectionReqPsswd | Set the password the ACS must use to log in. | OPTIONAL |
| connectionReqAuth | Set the authentication type of modem CWMP server for asynchronous connects. | OPTIONAL |
| bootdelayrange | Set the delay on boot before inform is sent. | OPTIONAL |
| upgradedelay | Set whether to delay upgrade if statecheck is active. | OPTIONAL |
| delaytimeoutaction | Set the action to perform when statecheck goes into timeout. | OPTIONAL |
| am1Termination | Set if am 1 session termination is enabled. | OPTIONAL |
| persistentSubscription | The cwmp daemon has persistent subscriptions. | OPTIONAL |
| connectionReqThrotNumber | Set the connection request throttling maximum number of accepted requests within period. | OPTIONAL |
| connectionReqThrotTime | Set the connection request throttling period in seconds in which max requests is reached. | OPTIONAL |
| showPasswords | Show all passwords in IGD as plaintext. When 0 then will be empty stringed as the standard requests. | OPTIONAL |
| urlSource | The name of DHCP client which the URL comes from. | OPTIONAL |

cwmp debug traceconfig

Enable or disable tracing.

SYNTAX:

```
cwmp debug traceconfig [level = <number>]
```

where:

| | | |
|-------|---------------------------|----------|
| level | Set the tracelevel (0-2). | OPTIONAL |
|-------|---------------------------|----------|

cwmp server config

Configure the cwmpd towards the ACS.

SYNTAX:

```
cwmp server config      [url = <string>]
                        [username = <string>]
                        [password = <password>]
```

where:

| | | |
|----------|--|----------|
| url | Set the HTTP URL used to contact the ACS server. | OPTIONAL |
| username | Set the username for ACS Digest Authentication. | OPTIONAL |
| password | Set the password for ACS Digest Authentication. | OPTIONAL |

debug Command

Execute a 'Trace & Debug' command. For qualified personnel only.

SYNTAX:

```
debug exec          cmd = <quoted string>
```

where:

| | | |
|-----|---------------------------------------|----------|
| cmd | Quoted 'Trace & Debug' command string | REQUIRED |
|-----|---------------------------------------|----------|

dhcp Commands

| | | |
|---|---|--------------|
| <i>dhcp client debug clear</i> | <i>Clear DHCP client statistics</i> | see page 135 |
| <i>dhcp client debug stats</i> | <i>Print DHCP client statistics</i> | see page 136 |
| <i>dhcp client debug traceconfig</i> | <i>Modify DHCP client trace configuration</i> | see page 137 |
| <i>dhcp client flush</i> | <i>Delete all DHCP clients.</i> | see page 138 |
| <i>dhcp client ifadd</i> | <i>Create a DHCP client.</i> | see page 139 |
| <i>dhcp client ifattach</i> | <i>Activate a DHCP client.</i> | see page 140 |
| <i>dhcp client ifconfig</i> | <i>Configure a DHCP client.</i> | see page 141 |
| <i>dhcp client ifdelete</i> | <i>Delete a DHCP client.</i> | see page 142 |
| <i>dhcp client ifdetach</i> | <i>De-activate a DHCP client and releases its lease.</i> | see page 143 |
| <i>dhcp client iflist</i> | <i>List DHCP clients.</i> | see page 144 |
| <i>dhcp client ifrenew</i> | <i>Renew a DHCP lease.</i> | see page 145 |
| <i>dhcp client roptions add</i> | <i>Add a DHCP Option Code to the Parameter Request List.</i> | see page 146 |
| <i>dhcp client roptions delete</i> | <i>Delete a DHCP Option Code from the Parameter Request List.</i> | see page 147 |
| <i>dhcp client roptions list</i> | <i>List all DHCP Option Codes in the Parameter Request List.</i> | see page 148 |
| <i>dhcp client roptions optionlist</i> | <i>List all DHCP Option Codes that can be used in the Parameter Request List.</i> | see page 149 |
| <i>dhcp client txoptions add</i> | <i>Add an option.</i> | see page 150 |
| <i>dhcp client txoptions delete</i> | <i>Delete an option.</i> | see page 152 |
| <i>dhcp client txoptions list</i> | <i>List all options.</i> | see page 153 |
| <i>dhcp client txoptions optionlist</i> | <i>Lists all DHCP Option Codes that can be used.</i> | see page 154 |
| <i>dhcp clientv6 debug clear</i> | <i>Clear DHCPv6 client statistics</i> | see page 155 |
| <i>dhcp clientv6 debug stats</i> | <i>Print DHCPv6 client statistics</i> | see page 156 |
| <i>dhcp clientv6 debug traceconfig</i> | <i>Modify DHCPv6 client trace configuration</i> | see page 157 |
| <i>dhcp clientv6 flush</i> | <i>Delete all DHCPv6 clients.</i> | see page 158 |
| <i>dhcp clientv6 ifadd</i> | <i>Create a DHCPv6 client.</i> | see page 159 |
| <i>dhcp clientv6 ifattach</i> | <i>Activate a DHCPv6 client.</i> | see page 160 |

| | | |
|---|---|--------------|
| <i>dhcp clientv6 ifconfig</i> | <i>Configure a DHCPv6 client.</i> | see page 161 |
| <i>dhcp clientv6 ifdelete</i> | <i>Delete a DHCPv6 client.</i> | see page 163 |
| <i>dhcp clientv6 ifdetach</i> | <i>Deactivate a DHCPv6 client</i> | see page 164 |
| <i>dhcp clientv6 iflist</i> | <i>List DHCPv6 clients.</i> | see page 165 |
| <i>dhcp clientv6 ifrenew</i> | <i>Renew a DHCPv6 client.</i> | see page 166 |
| <i>dhcp clientv6 oro add</i> | <i>Add a DHCPv6 Option Code to the Option Request Option list.</i> | see page 167 |
| <i>dhcp clientv6 oro delete</i> | <i>Delete a DHCPv6 Option Code from the Option Request Option list.</i> | see page 168 |
| <i>dhcp clientv6 oro list</i> | <i>List all DHCPv6 Option Codes in the Option Request Option list.</i> | see page 169 |
| <i>dhcp clientv6 oro optionlist</i> | <i>List all DHCPv6 Option Codes that can be used in the Option Request Option</i> | see page 170 |
| <i>dhcp clientv6 txoptions add</i> | <i>Add a DHCPv6 option.</i> | see page 171 |
| <i>dhcp clientv6 txoptions delete</i> | <i>Delete a DHCPv6 option.</i> | see page 172 |
| <i>dhcp clientv6 txoptions list</i> | <i>List all DHCPv6 options.</i> | see page 173 |
| <i>dhcp clientv6 txoptions optionlist</i> | <i>Lists all DHCPv6 Option Codes that can be used.</i> | see page 174 |
| <i>dhcp relay add</i> | <i>Add an entry to the DHCP forward list.</i> | see page 175 |
| <i>dhcp relay config</i> | <i>Sets the relay configuration settings.</i> | see page 176 |
| <i>dhcp relay debug stats</i> | <i>Print DHCP relay statistics.</i> | see page 177 |
| <i>dhcp relay debug traceconfig</i> | <i>Modify DHCP relay trace configuration</i> | see page 178 |
| <i>dhcp relay delete</i> | <i>Delete an entry from the DHCP forward list.</i> | see page 179 |
| <i>dhcp relay flush</i> | <i>Flushes the DHCP relay settings.</i> | see page 180 |
| <i>dhcp relay ifconfig</i> | <i>Configure a relay interface.</i> | see page 181 |
| <i>dhcp relay iflist</i> | <i>Show the configuration of the relay interfaces.</i> | see page 182 |
| <i>dhcp relay list</i> | <i>List the DHCP forward list.</i> | see page 183 |
| <i>dhcp relay modify</i> | <i>Modify an entry from the DHCP forward list.</i> | see page 184 |
| <i>dhcp relay ruleadd</i> | <i>Add a selection rule to a DHCP forward entry</i> | see page 185 |
| <i>dhcp relay ruledel</i> | <i>Delete a selection rule from a DHCP forward entry</i> | see page 186 |
| <i>dhcp relayv6 add</i> | <i>Add an entry to the DHCPv6 relay forwarding list.</i> | see page 187 |
| <i>dhcp relayv6 config</i> | <i>Show the DHCPv6 relay status.</i> | see page 188 |

| | | |
|---------------------------------------|---|--------------|
| <i>dhcp relayv6 debug clear</i> | <i>Clear DHCPv6 relay statistics</i> | see page 189 |
| <i>dhcp relayv6 debug stats</i> | <i>Print DHCPv6 relay statistics</i> | see page 190 |
| <i>dhcp relayv6 debug traceconfig</i> | <i>Modify DHCPv6 relay trace configuration</i> | see page 191 |
| <i>dhcp relayv6 debug tracelevel</i> | <i>Show the DHCPv6 relay trace level</i> | see page 192 |
| <i>dhcp relayv6 delete</i> | <i>Delete an entry from the DHCPv6 relay forwarding list.</i> | see page 193 |
| <i>dhcp relayv6 flush</i> | <i>Flushes the DHCPv6 relay settings.</i> | see page 194 |
| <i>dhcp relayv6 ifconfig</i> | <i>Configure a DHCPv6 relay interface.</i> | see page 195 |
| <i>dhcp relayv6 iflist</i> | <i>Show the configuration of the DHCPv6 relay interfaces.</i> | see page 196 |
| <i>dhcp relayv6 list</i> | <i>Show the DHCPv6 forwarding list.</i> | see page 197 |
| <i>dhcp relayv6 modify</i> | <i>Modify an entry in the DHCPv6 relay forwarding list.</i> | see page 198 |
| <i>dhcp relayv6 ruleadd</i> | <i>Add a selection rule to a DHCPv6 forwarding rule</i> | see page 199 |
| <i>dhcp relayv6 ruledel</i> | <i>Delete a selection rule from a DHCPv6 forwarding rule</i> | see page 200 |
| <i>dhcp rule add</i> | <i>Add a rule for DHCP conditional selection</i> | see page 201 |
| <i>dhcp rule debug traceconfig</i> | <i>Modify DHCP rule trace configuration</i> | see page 203 |
| <i>dhcp rule delete</i> | <i>Delete a DHCP rule</i> | see page 204 |
| <i>dhcp rule flush</i> | <i>Flush all DHCP rules</i> | see page 205 |
| <i>dhcp rule list</i> | <i>List all DHCP rules</i> | see page 206 |
| <i>dhcp server config</i> | <i>Print DHCP server configuration settings</i> | see page 207 |
| <i>dhcp server debug clear</i> | <i>Clear DHCP server statistics</i> | see page 208 |
| <i>dhcp server debug stats</i> | <i>Print DHCP server statistics</i> | see page 209 |
| <i>dhcp server debug traceconfig</i> | <i>Modify DHCP server trace configuration</i> | see page 210 |
| <i>dhcp server flush</i> | <i>Flush all DHCP server pool and lease entries</i> | see page 211 |
| <i>dhcp server lease add</i> | <i>Add a DHCP server lease</i> | see page 212 |
| <i>dhcp server lease delete</i> | <i>Delete a DHCP server lease</i> | see page 213 |
| <i>dhcp server lease flush</i> | <i>Flush all DHCP server leases</i> | see page 214 |
| <i>dhcp server lease list</i> | <i>List all DHCP server leases</i> | see page 215 |
| <i>dhcp server option flush</i> | <i>Flush all DHCP server option templates and instances</i> | see page 216 |

| | | |
|--|---|--------------|
| <i>dhcp server option instadd</i> | <i>Add a DHCP server option instance</i> | see page 217 |
| <i>dhcp server option instdelete</i> | <i>Delete a DHCP server option instance</i> | see page 218 |
| <i>dhcp server option instlist</i> | <i>List all DHCP server option instances</i> | see page 219 |
| <i>dhcp server option ruleadd</i> | <i>Add a selection rule to a DHCP server option instance</i> | see page 220 |
| <i>dhcp server option ruledel</i> | <i>Delete a selection rule from a DHCP server option instance</i> | see page 221 |
| <i>dhcp server option tmpladd</i> | <i>Add a DHCP server option template</i> | see page 222 |
| <i>dhcp server option tmpldelete</i> | <i>Delete a DHCP server option template</i> | see page 223 |
| <i>dhcp server option tmpllist</i> | <i>List all DHCP server option templates</i> | see page 224 |
| <i>dhcp server policy</i> | <i>Print DHCP server policy settings</i> | see page 225 |
| <i>dhcp server pool add</i> | <i>Add a DHCP server pool</i> | see page 226 |
| <i>dhcp server pool config</i> | <i>Configure a DHCP server pool</i> | see page 227 |
| <i>dhcp server pool delete</i> | <i>Delete a DHCP server pool</i> | see page 229 |
| <i>dhcp server pool flush</i> | <i>Flush all DHCP server pools</i> | see page 230 |
| <i>dhcp server pool list</i> | <i>List all DHCP server pools</i> | see page 231 |
| <i>dhcp server pool optadd</i> | <i>Add an option instance to the DHCP server pool</i> | see page 232 |
| <i>dhcp server pool optdelete</i> | <i>Delete an option instance from the DHCP server pool</i> | see page 233 |
| <i>dhcp server pool rtadd</i> | <i>Add a route to the DHCP server pool</i> | see page 234 |
| <i>dhcp server pool rtdelete</i> | <i>Delete a route from the DHCP server pool</i> | see page 235 |
| <i>dhcp server pool ruleadd</i> | <i>Add a selection rule to the DHCP server pool</i> | see page 236 |
| <i>dhcp server pool ruledel</i> | <i>Delete a selection rule from the DHCP server pool</i> | see page 237 |
| <i>dhcp serverv6 config</i> | <i>Config DHCPv6 server configuration settings</i> | see page 238 |
| <i>dhcp serverv6 debug clear</i> | <i>Clear DHCPv6 server statistics</i> | see page 239 |
| <i>dhcp serverv6 debug stats</i> | <i>Print DHCPv6 server statistics</i> | see page 240 |
| <i>dhcp serverv6 debug traceconfig</i> | <i>Modify DHCPv6 server trace configuration</i> | see page 241 |
| <i>dhcp serverv6 flush</i> | <i>Flush DHCPv6 server pool configuration.</i> | see page 242 |
| <i>dhcp serverv6 option add</i> | <i>Add a DHCPv6 server option profile</i> | see page 243 |
| <i>dhcp serverv6 option delete</i> | <i>Delete a DHCPv6 server option profile</i> | see page 244 |

| | | |
|---|--|--------------|
| <i>dhcp serverv6 option fieldadd</i> | <i>Add an option field to a DHCPv6 server option profile</i> | see page 245 |
| <i>dhcp serverv6 option fielddelete</i> | <i>Delete an option field from a DHCPv6 server option profile</i> | see page 246 |
| <i>dhcp serverv6 option flush</i> | <i>Flush all DHCPv6 server option profiles</i> | see page 247 |
| <i>dhcp serverv6 option list</i> | <i>List all DHCPv6 server option profiles</i> | see page 248 |
| <i>dhcp serverv6 option modify</i> | <i>Modify the DHCPv6 server option profile parameters</i> | see page 249 |
| <i>dhcp serverv6 option optionlist</i> | <i>Lists all DHCPv6 Option Codes that can be used.</i> | see page 250 |
| <i>dhcp serverv6 option ruleadd</i> | <i>Add a selection rule to a DHCPv6 server option profile</i> | see page 251 |
| <i>dhcp serverv6 option ruledelate</i> | <i>Delete a selection rule from a DHCPv6 server option profile</i> | see page 252 |
| <i>dhcp serverv6 pool add</i> | <i>Add a DHCPv6 server pool</i> | see page 253 |
| <i>dhcp serverv6 pool config</i> | <i>Configure a DHCPv6 server pool</i> | see page 254 |
| <i>dhcp serverv6 pool delete</i> | <i>Delete a DHCPv6 server pool</i> | see page 255 |
| <i>dhcp serverv6 pool flush</i> | <i>Flush all DHCPv6 server pools</i> | see page 256 |
| <i>dhcp serverv6 pool list</i> | <i>List all DHCPv6 server pools</i> | see page 257 |
| <i>dhcp serverv6 pool optionadd</i> | <i>Add an option to the DHCPv6 server pool</i> | see page 258 |
| <i>dhcp serverv6 pool optiondelete</i> | <i>Delete an option from the DHCPv6 server pool</i> | see page 259 |
| <i>dhcp serverv6 pool ruleadd</i> | <i>Add a selection rule to the DHCPv6 server pool</i> | see page 260 |
| <i>dhcp serverv6 pool ruledelate</i> | <i>Delete a selection rule from the DHCPv6 server pool</i> | see page 261 |
| <i>dhcp spoofing add</i> | <i>Add a Spoofing-Association</i> | see page 262 |
| <i>dhcp spoofing attach</i> | <i>Enable a Spoofing-Association</i> | see page 263 |
| <i>dhcp spoofing config</i> | <i>Display/modify dhcp spoofing state</i> | see page 264 |
| <i>dhcp spoofing debug traceconfig</i> | <i>Display/modify DHCP spoofing trace configuratin</i> | see page 265 |
| <i>dhcp spoofing delete</i> | <i>Delete a Spoofing-Association</i> | see page 266 |
| <i>dhcp spoofing detach</i> | <i>Disable a Spoofing-Association</i> | see page 267 |
| <i>dhcp spoofing flush</i> | <i>Flush all the associations and the options.</i> | see page 268 |
| <i>dhcp spoofing list</i> | <i>List the available Spoofing-Associations</i> | see page 269 |

| | | |
|------------------------------------|---|--------------|
| <i>dhcp spoofing option-add</i> | <i>Add a DHCP Option Code to a Spoofing-Association.</i> | see page 270 |
| <i>dhcp spoofing option-delete</i> | <i>Delete a DHCP Option Code from a Spoofing-Association.</i> | see page 271 |

dhcp client debug clear

Clear DHCP client statistics

dhcp client debug stats

Print DHCP client statistics

dhcp client debug traceconfig

Modify DHCP client trace configuration

SYNTAX:

```
dhcp client debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp client flush

Delete all DHCP clients.

dhcp client ifadd

Create a DHCP client.

SYNTAX:

```
dhcp client ifadd          intf = <{Internet|LocalNetwork}>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
|------|--|----------|

dhcp client ifattach

Activate a DHCP client.

SYNTAX:

```
dhcp client ifattach          intf = <>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
|------|--|----------|

dhcp client ifconfig

Configure a DHCP client.

SYNTAX:

```
dhcp client ifconfig          intf = <>
                              [metric = <number{0-255}>]
                              [dnsmetric = <number{0-100}>]
                              [broadcast = <{disabled|enabled}>]
                              [serverroute = <{disabled|enabled}>]
                              [routelabel = <{None|Interactive|Local|
Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
VoIP-Signal|default}>]
                              [qoslabel = <{None|Interactive|Local|
Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
VoIP-Signal|default}>]
                              [followlabel = <{disabled|enabled}>]
                              [forcerenew = <{disabled|enabled}>]
```

where:

| | | |
|-------------|--|----------|
| intf | The name of the dynamic interface to be configured. | REQUIRED |
| metric | Route metric for default gateway and static routes. | OPTIONAL |
| dnsmetric | Metric for DNS forwarding entries. | OPTIONAL |
| broadcast | Operate client in unicast/broadcast mode. | OPTIONAL |
| serverroute | Insert a route for the DHCP server IP | OPTIONAL |
| routelabel | Route label for default gateway and static routes. | OPTIONAL |
| qoslabel | Qos label to be used by the DHCP client. | OPTIONAL |
| followlabel | If enabled the DHCP client's unicast traffic will follow the route label specified. If disabled DHCP unicast traffic will follow standard routes | OPTIONAL |
| forcerenew | Accept DHCP force-renew messages. | OPTIONAL |

dhcp client ifdelete

Delete a DHCP client.

SYNTAX:

```
dhcp client ifdelete          intf = <>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
|------|--|----------|

dhcp client ifdetach

De-activate a DHCP client and releases its lease.

SYNTAX:

```
dhcp client ifdetach          intf = <>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
|------|--|----------|

dhcp client iflist

List DHCP clients.

SYNTAX:

```
dhcp client iflist          [intf = <>]
                           [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | OPTIONAL |
| expand | Expand enabled/disabled. | OPTIONAL |

dhcp client ifrenew

Renew a DHCP lease.

SYNTAX:

```
dhcp client ifrenew          intf = <>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
|------|--|----------|

dhcp client roptions add

Add a DHCP Option Code to the Parameter Request List.

SYNTAX:

```
dhcp client roptions add      intf = <>
                             option = <{subnet-mask|time-offset|default-
                             routers|time-servers|ien116-name-impress-
                             servers|resource-location-servers|host-
                             name|boot-file-size|merit-dump|domain-name|
                             swap-server|root-path|extensions-path|ip-
                             forwarding|non-local-source-routing|policy-
                             filter|max-dgram-reassembly|default-ip-ttl|
                             path-mtu-aging-timeout|path-mtu-plateau-table|
                             interface-mtu|all-subnets-local|broadcast-
                             address|perform-mask-discovery|mask-supplier|
                             router-discovery|router-solicitation-address|
                             classfull-static-routes|trailer-encapsulation|
                             arp-cache-timeout|ieee802-3-encapsulation|
                             default-tcp-ttl|tcp-keepalive-interval|tcp-
                             keepalive-garbage|nis-domain|nis-servers|ntp-
                             servers|vendor-specific_info|netbios-name-
                             servers|netbios-dd-server|netbios-node-type|
                             netbios-scope|font-servers|x-display-manager|
                             dhcp-lease-time|dhcp-server-identifier|
                             dhcp-parameter-request-list|dhcp-renewal-
                             time|dhcp-rebinding-time|nwip-domain|nwip-
                             suboptions|nisplus-domain|nisplus-servers|
                             tftp-server-name|bootfile-name|mobile-ip-home-
                             agent|smtp-server|pop-server|nntp-server|www-
                             server|finger-server|irc-server|streetwork-
                             server|streetwork-directory-assistance-
                             server|slp-directory-agent|slp-service-scope|
                             rapid_commit|client-fqdn|internet-storage-
                             name-servers|#84|nds-servers|nds-tree-name|
                             nds-context|#88|#89|dhcp-msg-authentication|
                             client-last-transaction-time|...} or number>
                             [index = <number{0-255}>]
```

where:

| | | |
|--------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
| option | The name or number of the option. | REQUIRED |
| index | The index of the option. | OPTIONAL |

dhcp client roptions delete

Delete a DHCP Option Code from the Parameter Request List.

SYNTAX:

```
dhcp client roptions delete      intf = <>
                                option = <{subnet-mask|time-offset|default-
                                routers|time-servers|ien116-name-impress-
                                servers|resource-location-servers|host-
                                name|boot-file-size|merit-dump|domain-name|
                                swap-server|root-path|extensions-path|ip-
                                forwarding|non-local-source-routing|policy-
                                filter|max-dgram-reassembly|default-ip-ttl|
                                path-mtu-aging-timeout|path-mtu-plateau-table|
                                interface-mtu|all-subnets-local|broadcast-
                                address|perform-mask-discovery|mask-supplier|
                                router-discovery|router-solicitation-address|
                                classfull-static-routes|trailer-encapsulation|
                                arp-cache-timeout|ieee802-3-encapsulation|
                                default-tcp-ttl|tcp-keepalive-interval|tcp-
                                keepalive-garbage|nis-domain|nis-servers|ntp-
                                servers|vendor-specific_info|netbios-name-
                                servers|netbios-dd-server|netbios-node-type|
                                netbios-scope|font-servers|x-display-manager|
                                dhcp-lease-time|dhcp-server-identifier|
                                dhcp-parameter-request-list|dhcp-renewal-
                                time|dhcp-rebinding-time|nwip-domain|nwip-
                                suboptions|nisplus-domain|nisplus-servers|
                                tftp-server-name|bootfile-name|mobile-ip-home-
                                agent|smtp-server|pop-server|nntp-server|www-
                                server|finger-server|irc-server|streetwork-
                                server|streetwork-directory-assistance-
                                server|slp-directory-agent|slp-service-scope|
                                rapid_commit|client-fqdn|internet-storage-
                                name-servers|#84|nds-servers|nds-tree-name|
                                nds-context|#88|#89|dhcp-msg-authentication|
                                client-last-transaction-time|...} or number>
```

where:

| | | |
|--------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
| option | The name or number of the option. | REQUIRED |

dhcp client roptions list

List all DHCP Option Codes in the Parameter Request List.

SYNTAX:

```
dhcp client roptions list [intf = <>]
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | OPTIONAL |
|------|--|----------|

dhcp client roptions optionlist

List all DHCP Option Codes that can be used in the Parameter Request List.

dhcp client txoptions add

Add an option.

SYNTAX:

```
dhcp client txoptions add      intf = <>
                               option = <{subnet-mask|time-offset|default-
                               routers|time-servers|ien116-name-impress-
                               servers|resource-location-servers|host-
                               name|boot-file-size|merit-dump|domain-name|
                               swap-server|root-path|extensions-path|ip-
                               forwarding|non-local-source-routing|policy-
                               filter|max-dgram-reassembly|default-ip-ttl|
                               path-mtu-aging-timeout|path-mtu-plateau-table|
                               interface-mtu|all-subnets-local|broadcast-
                               address|perform-mask-discovery|mask-supplier|
                               router-discovery|router-solicitation-address|
                               classfull-static-routes|trailer-encapsulation|
                               arp-cache-timeout|ieee802-3-encapsulation|
                               default-tcp-ttl|tcp-keepalive-interval|tcp-
                               keepalive-garbage|nis-domain|nis-servers|
                               ntp-servers|netbios-name-servers|netbios-dd-
                               server|netbios-node-type|netbios-scope|font-
                               servers|x-display-manager|dhcp-requested-
                               address|dhcp-lease-time|dhcp-option-overload|
                               dhcp-max-message-size|dhcp-renewal-time|
                               dhcp-rebinding-time|vendor-class-id|dhcp-
                               client-identifier|nwip-domain|nwip-suboptions|
                               nisplus-domain|nisplus-servers|tftp-server-
                               name|bootfile-name|mobile-ip-home-agent|smtp-
                               server|pop-server|nntp-server|www-server|
                               finger-server|irc-server|streetwork-server|
                               streetwork-directory-assistance-server|
                               user-class-identifier|slp-directory-agent|
                               slp-service-scope|rapid_commit|client-fqdn|
                               internet-storage-name-servers|#84|nds-servers|
                               nds-tree-name|nds-context|#88|#89|...} or
                               number>
                               [enterprise = <number{1-2147483647}>]
                               [suboption = <number{1-254}>]
                               value = <Value : (type)value; type being 8-
                               bit, 16-bit, 32-bit, addr, ascii, byte_array,
                               clientid, env>
                               [index = <number{0-255}>]
```

where:

| | | |
|------------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
| option | The name or number of the option. | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |

| | | |
|-----------|--|----------|
| suboption | The suboption number | OPTIONAL |
| value | The value of the option. | REQUIRED |
| index | The index of the (sub)option/enterprise number in the Option List. | OPTIONAL |

dhcp client tsoptions delete

Delete an option.

SYNTAX:

```
dhcp client tsoptions delete    intf = <>
                                option = <{subnet-mask|time-offset|default-
                                routers|time-servers|ien116-name-impress-
                                servers|resource-location-servers|host-
                                name|boot-file-size|merit-dump|domain-name|
                                swap-server|root-path|extensions-path|ip-
                                forwarding|non-local-source-routing|policy-
                                filter|max-dgram-reassembly|default-ip-ttl|
                                path-mtu-aging-timeout|path-mtu-plateau-table|
                                interface-mtu|all-subnets-local|broadcast-
                                address|perform-mask-discovery|mask-supplier|
                                router-discovery|router-solicitation-address|
                                classfull-static-routes|trailer-encapsulation|
                                arp-cache-timeout|ieee802-3-encapsulation|
                                default-tcp-ttl|tcp-keepalive-interval|tcp-
                                keepalive-garbage|nis-domain|nis-servers|
                                ntp-servers|netbios-name-servers|netbios-dd-
                                server|netbios-node-type|netbios-scope|font-
                                servers|x-display-manager|dhcp-requested-
                                address|dhcp-lease-time|dhcp-option-overload|
                                dhcp-max-message-size|dhcp-renewal-time|
                                dhcp-rebinding-time|vendor-class-id|dhcp-
                                client-identifier|nwip-domain|nwip-suboptions|
                                nisplus-domain|nisplus-servers|tftp-server-
                                name|bootfile-name|mobile-ip-home-agent|smtp-
                                server|pop-server|nntp-server|www-server|
                                finger-server|irc-server|streetwork-server|
                                streetwork-directory-assistance-server|
                                user-class-identifier|slp-directory-agent|
                                slp-service-scope|rapid_commit|client-fqdn|
                                internet-storage-name-servers|#84|nds-servers|
                                nds-tree-name|nds-context|#88|#89|...} or
                                number>
                                [enterprise = <number{1-2147483647}>]
                                [suboption = <number{1-254}>]
```

where:

| | | |
|------------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | REQUIRED |
| option | The name or number of the option. | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |

dhcp client toptions list

List all options.

SYNTAX:

```
dhcp client toptions list      [intf = <>]
                               [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| intf | The name of the interface on which a DHCP Client is defined. | OPTIONAL |
| expand | Expand enabled/disabled. | OPTIONAL |

dhcp client txoptions optionlist

Lists all DHCP Option Codes that can be used.

dhcp clientv6 debug clear

Clear DHCPv6 client statistics

dhcp clientv6 debug stats

Print DHCPv6 client statistics

dhcp clientv6 debug traceconfig

Modify DHCPv6 client trace configuration

SYNTAX:

```
dhcp clientv6 debug          [state = <{disabled|enabled}>]  
traceconfig
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp clientv6 flush

Delete all DHCPv6 clients.

dhcp clientv6 ifadd

Create a DHCPv6 client.

SYNTAX:

```
dhcp clientv6 ifadd          intf = <{LocalNetwork}>
```

where:

| | | |
|------|---|----------|
| intf | The name of the interface on which a DHCPv6 Client will be added. | REQUIRED |
|------|---|----------|

dhcp clientv6 ifattach

Activate a DHCPv6 client.

SYNTAX:

```
dhcp clientv6 ifattach          intf = <>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
|------|--|----------|

dhcp clientv6 ifconfig

Configure a DHCPv6 client.

SYNTAX:

```
dhcp clientv6 ifconfig      intf = <>
                           [listenra = <{disabled|enabled}>]
                           [stateless = <{disabled|enabled}>]
                           [rapidcommit = <{disabled|enabled}>]
                           [leasetime = <number>]
                           [irt = <number>]
                           [iana = <number{0-5}>]
                           [iapd = <number{0-5}>]
                           [leasehist = <{disabled|enabled}>]
                           [dnsmetric = <number{0-100}>]
                           [routelabel = <{None|Interactive|Local|
Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
VoIP-Signal|default}>]
                           [qoslabeled = <{None|Interactive|Local|
Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
VoIP-Signal|default}>]
                           [followlabel = <{disabled|enabled}>]
```

where:

| | | |
|-------------|--|----------|
| intf | The name of the DHCPv6 client interface to be configured. | REQUIRED |
| listenra | If enabled Router Advertisement messages will trigger the DHCPv6 client in stateful or stateless mode via the M and O flags | OPTIONAL |
| stateless | If enabled the DHCPv6 client is configured stateless mode | OPTIONAL |
| rapidcommit | If enabled the DHCPv6 client will include the rapid commit option | OPTIONAL |
| leasetime | The time in seconds the DHCPv6 client proposes to the server (tip: 4294967295 means infinite leasetime) | OPTIONAL |
| irt | The DHCPv6 client Information Refresh Time used in stateless mode when no value is specified by the server (tip: 4294967295 means infinite information refresh time) | OPTIONAL |
| iana | The number of IA NA options the DHCPv6 client will propose. | OPTIONAL |
| iapd | The number of IA PD options the DHCPv6 client will propose. | OPTIONAL |
| leasehist | If enabled the DHCPv6 client will keep lease history. | OPTIONAL |
| dnsmetric | Metric for DNS forwarding entries. | OPTIONAL |
| routelabel | Route label to be used for default gateway and static routes. | OPTIONAL |

| | | |
|-------------|---|----------|
| qoslabel | Qos label to be used by the DHCPv6 client. | OPTIONAL |
| followlabel | If enabled the DHCPv6 client's unicast traffic will follow the route label specified. | OPTIONAL |

dhcp clientv6 ifdelete

Delete a DHCPv6 client.

SYNTAX:

```
dhcp clientv6 ifdelete          intf = <{Internet}>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
|------|--|----------|

dhcp clientv6 ifdetach

Deactivate a DHCPv6 client

SYNTAX:

```
dhcp clientv6 ifdetach          intf = <{Internet}>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
|------|--|----------|

dhcp clientv6 iflist

List DHCPv6 clients.

SYNTAX:

```
dhcp clientv6 iflist          [intf = <{Internet}>]
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | OPTIONAL |
| expand | Expand enabled/disabled. | OPTIONAL |

dhcp clientv6 ifrenew

Renew a DHCPv6 client.

SYNTAX:

```
dhcp clientv6 ifrenew          intf = <{Internet}>
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
|------|--|----------|

dhcp clientv6 oro add

Add a DHCPv6 Option Code to the Option Request Option list.

SYNTAX:

```
dhcp clientv6 oro add          intf = <>
                               option = <{ia-non-temporary-address|ia-
                               temporary-address|preference|specific-
                               information|interface-id|sip-servers-dns|sip-
                               servers-addr|domain-name-servers|domain-name-
                               search|ia-prefix-delegation|nis-servers|nisp-
                               servers|nis-domain-name|nisp-domain-name|
                               sntp-servers|information-refresh-time|bcms-
                               server-d|bcms-server-a|subscriber-id|client-
                               fqdn|pana-agent|new-posix-timezone|new-tzdb-
                               timezone|lq-query|client-data|clt-time|lq-
                               relay-data|lq-client-link|aftr-name}>or number>
                               [required = <{disabled|enabled}>]
                               [index = <number{0-255}>]
```

where:

| | | |
|----------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
| option | The name or number of the option. | REQUIRED |
| required | If enabled the option must be offered by the DHCPv6 server | OPTIONAL |
| index | The index of the option. | OPTIONAL |

dhcp clientv6 oro delete

Delete a DHCPv6 Option Code from the Option Request Option list.

SYNTAX:

```
dhcp clientv6 oro delete      intf = <>
                              option = <{ia-non-temporary-address|ia-
                              temporary-address|preference|specific-
                              information|interface-id|sip-servers-dns|sip-
                              servers-addr|domain-name-servers|domain-name-
                              search|ia-prefix-delegation|nis-servers|nisp-
                              servers|nis-domain-name|nisp-domain-name|
                              sntp-servers|information-refresh-time|bcms-
                              server-d|bcms-server-a|subscriber-id|client-
                              fqdn|pana-agent|new-posix-timezone|new-tzdb-
                              timezone|lq-query|client-data|clt-time|lq-
                              relay-data|lq-client-link|aftr-name}or number>
```

where:

| | | |
|--------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
| option | The name or number of the option. | REQUIRED |

dhcp clientv6 oro list

List all DHCPv6 Option Codes in the Option Request Option list.

SYNTAX:

```
dhcp clientv6 oro list [intf = <{Internet}>]
```

where:

| | | |
|------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | OPTIONAL |
|------|--|----------|

dhcp clientv6 oro optionlist

List all DHCPv6 Option Codes that can be used in the Option Request Option

dhcp clientv6 txoptions add

Add a DHCPv6 option.

SYNTAX:

```
dhcp clientv6 txoptions add      intf = <>
                                option = <{client-identifier|user-class|
                                vendor-class|vendor-specific-information|
                                client-fqdn} or number>
                                [enterprise = <number{1-2147483647}>]
                                [suboption = <number{1-65535}>]
                                value = <Value : (type)value; optional type
                                being 8-bit, 8-sbit, 16-bit, 16-env>
```

where:

| | | |
|------------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
| option | The name or number of the option. | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |
| value | The value of the option. | REQUIRED |

dhcp clientv6 tsoptions delete

Delete a DHCPv6 option.

SYNTAX:

```
dhcp clientv6 tsoptions delete intf = <>
                                option = <{client-identifier|user-class|
                                vendor-class|vendor-specific-information|
                                client-fqdn} or number>
                                [enterprise = <number{1-2147483647}>]
                                [suboption = <number{1-65535}>]
```

where:

| | | |
|------------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | REQUIRED |
| option | The number or number of the option. | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |

dhcp clientv6 txoptions list

List all DHCPv6 options.

SYNTAX:

```
dhcp clientv6 txoptions list    [intf = <{Internet}>]
                               [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| intf | The name of the interface on which a DHCPv6 Client is defined. | OPTIONAL |
| expand | Expand enabled/disabled. | OPTIONAL |

dhcp clientv6 txoptions optionlist

Lists all DHCPv6 Option Codes that can be used.

dhcp relay add

Add an entry to the DHCP forward list.

SYNTAX:

```
dhcp relay add name = <string>
```

where:

| | | |
|------|-------------------------|----------|
| name | The forward entry name. | REQUIRED |
|------|-------------------------|----------|

dhcp relay config

Sets the relay configuration settings.

SYNTAX:

```
dhcp relay config          [agentinfo = <{disabled|enabled}>]
                          [agentmismatch = <{disabled|enabled}>]
```

where:

| | | |
|---------------|--|----------|
| agentinfo | Set the relay agent info status (RFC3046). | OPTIONAL |
| agentmismatch | Forward/Drop DHCP reply packet when a relay agent info mismatch is detected (RFC3046). | OPTIONAL |

dhcp relay debug stats

Print DHCP relay statistics.

dhcp relay debug traceconfig

Modify DHCP relay trace configuration

SYNTAX:

```
dhcp relay debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp relay delete

Delete an entry from the DHCP forward list.

SYNTAX:

```
dhcp relay delete          name = <{LocalNetwork_to_127.0.0.1}>
```

where:

| | | |
|------|-------------------------|----------|
| name | The forward entry name. | REQUIRED |
|------|-------------------------|----------|

dhcp relay flush

Flushes the DHCP relay settings.

dhcp relay ifconfig

Configure a relay interface.

SYNTAX:

```
dhcp relay ifconfig          intf = <{LocalNetwork|Internet}>
                             [relay = <{disabled|enabled}>]
                             [maxhops = <number{0-16}>]
                             [remoteid = <password>]
                             [trusted = <{disabled|enabled}>]
```

where:

| | | |
|----------|---|----------|
| intf | The name of the relay interface to configure. | REQUIRED |
| relay | Set the relay status. | OPTIONAL |
| maxhops | Set the maximum number of hops allowed in the DHCP packet. | OPTIONAL |
| remoteid | Set the remote id as specified in RFC3046. | OPTIONAL |
| trusted | Drop/Forward DHCP request packet when a relay agent info option is present and the giaddr field is 0 (RFC3046). | OPTIONAL |

dhcp relay iflist

Show the configuration of the relay interfaces.

SYNTAX:

```
dhcp relay iflist [intf = <{LocalNetwork|Internet}>]
```

where:

| | | |
|------|----------------------------------|----------|
| intf | The name of the relay interface. | OPTIONAL |
|------|----------------------------------|----------|

dhcp relay list

List the DHCP forward list.

SYNTAX:

```
dhcp relay list [name = <{LocalNetwork_to_127.0.0.1}>]
```

where:

| | | |
|------|-------------------------|----------|
| name | The forward entry name. | OPTIONAL |
|------|-------------------------|----------|

dhcp relay modify

Modify an entry from the DHCP forward list.

SYNTAX:

```
dhcp relay modify          name = <{LocalNetwork_to_127.0.0.1}>
                          [addr = <ipv4-address>]
                          [intf = <{None|LocalNetwork|Internet}>]
                          [giaddr = <ipv4-address>]
                          [script = <>]
```

where:

| | | |
|--------|--|----------|
| name | The forward entry name. | REQUIRED |
| addr | The DHCP server IP address. | OPTIONAL |
| intf | The name of the relay interface, 'None' to indicate no interface is specified. | OPTIONAL |
| giaddr | The giaddr field to be used in relayed DHCP packets. | OPTIONAL |
| script | Script to be run when the forward entry is hit. | OPTIONAL |

dhcp relay ruleadd

Add a selection rule to a DHCP forward entry

SYNTAX:

```
dhcp relay ruleadd          name = <{LocalNetwork_to_127.0.0.1}>
                             [key = <{or|and}>]
                             rulename = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the forward entry. | REQUIRED |
| key | The logical key of the selection rule. | OPTIONAL |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp relay ruledelete

Delete a selection rule from a DHCP forward entry

SYNTAX:

```
dhcp relay ruledelete          name = <{LocalNetwork_to_127.0.0.1}>
                               rulename = <>
```

where:

| | | |
|----------|--------------------------------------|----------|
| name | The name of the forward entry. | REQUIRED |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp relayv6 add

Add an entry to the DHCPv6 relay forwarding list.

SYNTAX:

```
dhcp relayv6 add name = <string>
```

where:

| | | |
|------|---------------------------|----------|
| name | The forwarding rule name. | REQUIRED |
|------|---------------------------|----------|

dhcp relayv6 config

Show the DHCPv6 relay status.

dhcp relayv6 debug clear

Clear DHCPv6 relay statistics

dhcp relayv6 debug stats

Print DHCPv6 relay statistics

dhcp relayv6 debug traceconfig

Modify DHCPv6 relay trace configuration

SYNTAX:

```
dhcp relayv6 debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp relayv6 debug tracelevel

Show the DHCPv6 relay trace level

dhcp relayv6 delete

Delete an entry from the DHCPv6 relay forwarding list.

SYNTAX:

```
dhcp relayv6 delete          name = <{LocalNetwork_to_loop}>
```

where:

| | | |
|------|---------------------------|----------|
| name | The forwarding rule name. | REQUIRED |
|------|---------------------------|----------|

dhcp relayv6 flush

Flushes the DHCPv6 relay settings.

dhcp relayv6 ifconfig

Configure a DHCPv6 relay interface.

SYNTAX:

```
dhcp relayv6 ifconfig      intf = <{Internet|LocalNetwork}>
                           [status = <{disabled|enabled}>]
                           [maxhops = <number{0-254}>]
                           [interfaceid = <{disabled|enabled}>]
                           [remoteid = <password>]
```

where:

| | | |
|-------------|---|----------|
| intf | The name of the interface to be configured. | REQUIRED |
| status | The DHCPv6 relay status. | OPTIONAL |
| maxhops | The maximum number of hops allowed for a DHCPv6 relay packet. | OPTIONAL |
| interfaceid | Enable/disable the adding of interface-id options. | OPTIONAL |
| remoteid | Set the remote-id option as specified in RFC4649. | OPTIONAL |

dhcp relayv6 iflist

Show the configuration of the DHCPv6 relay interfaces.

SYNTAX:

```
dhcp relayv6 iflist [intf = <{Internet|LocalNetwork}>]
```

where:

| | | |
|------|---|----------|
| intf | The name of the interface to be listed. | OPTIONAL |
|------|---|----------|

dhcp relayv6 list

Show the DHCPv6 forwarding list.

SYNTAX:

```
dhcp relayv6 list [name = <{LocalNetwork_to_loop}>]
```

where:

| | | |
|------|---------------------------|----------|
| name | The forwarding rule name. | OPTIONAL |
|------|---------------------------|----------|

dhcp relayv6 modify

Modify an entry in the DHCPv6 relay forwarding list.

SYNTAX:

```
dhcp relayv6 modify          name = <{LocalNetwork_to_loop}>
                             [addr = <ipv6-address>]
                             [intf = <{None|LocalNetwork|Internet}>]
                             [dstintf = <{None|LocalNetwork|Internet}>]
                             [linkaddr = <ipv6-address>]
                             [script = <>]
```

where:

| | | |
|----------|---|----------|
| name | The DHCPv6 relay forwarding rule name. | REQUIRED |
| addr | The DHCPv6 server IPv6 address. Enter "::0" to reset the server address. | OPTIONAL |
| intf | The name of the interface associated with this DHCPv6 relay forwarding rule, 'Any' to indicate the forwarding rule applies to all interfaces. | OPTIONAL |
| dstintf | Destination interface of the forwarding rule, needed when specifying a link-local or multicast server address. | OPTIONAL |
| linkaddr | The link-address to be used when relaying packets through this interface. Enter "::0" to reset the link-address | OPTIONAL |
| script | Script to run when the forwarding rule is used. | OPTIONAL |

dhcp relayv6 ruleadd

Add a selection rule to a DHCPv6 forwarding rule

SYNTAX:

```
dhcp relayv6 ruleadd      name = <{LocalNetwork_to_loop}>
                          [key = <{or|and}>]
                          rulename = <>
```

where:

| | | |
|----------|---|----------|
| name | The name of the DHCPv6 relay forwarding rule. | REQUIRED |
| key | The logical key of the selection rule. | OPTIONAL |
| rulename | The name of the DHCPv6 selection rule. | REQUIRED |

dhcp relayv6 ruledelete

Delete a selection rule from a DHCPv6 forwarding rule

SYNTAX:

```
dhcp relayv6 ruledelete      name = <{LocalNetwork_to_loop}>
                             rulename = <>
```

where:

| | | |
|----------|---|----------|
| name | The name of the DHCPv6 relay forwarding rule. | REQUIRED |
| rulename | The name of the DHCPv6 selection rule. | REQUIRED |

dhcp rule add

Add a rule for DHCP conditional selection

SYNTAX:

```
dhcp rule add
name = <string>
type = <{option|mac|root}>
[version = <{dhcpv4|dhcpv6}>]
option [!] = <{subnet-mask|time-offset|
default-routers|time-servers|ien116-servers|
impress-servers|resource-location-servers|
host-name|boot-file-size|merit-dump|domain-
name|swap-server|root-path|extensions-path|
ip-forwarding|non-local-source-routing|policy-
filter|max-dgram-reassembly|default-ip-ttl|
path-mtu-aging-timeout|path-mtu-plateau-table|
interface-mtu|all-subnets-local|broadcast-
address|perform-mask-discovery|mask-supplier|
router-discovery|router-solicitation-address|
classfull-static-routes|trailer-encapsulation|
arp-cache-timeout|ieee802-3-encapsulation|
default-tcp-ttl|tcp-keepalive-interval|tcp-
keepalive-garbage|nis-domain|nis-servers|
ntp-servers|vendor-specific_info|netbios-
name-servers|netbios-dd-server|netbios-node-
type|netbios-scope|font-servers|x-display-
manager|requested-ip|dhcp-lease-time|dhcp-
overload-indication|dhcp-msg-type|dhcp-server-
identifier|dhcp-parameter-request-list|dhcp-
text-msg|dhcp-max-msg-size|dhcp-renewal-time|
dhcp-rebinding-time|vendor-class-identifier|
client-identifier|nwip-domain|nwip-suboptions|
nisplus-domain|nisplus-servers|tftp-server-
name|bootfile-name|mobile-ip-home-agent|smtp-
server|pop-server|nntp-server|www-server|
finger-server|irc-server|streetwork-server|
streetwork-directory-assistance-server|user-
class-identifier|slp-directory-agent|slp-
service-scope|...} or number>
[enterprise = <number{1-2147483647}>]
[suboption = <number{1-254}>]
[value = <Value : (type)value; optional type
being 8-bit, 8-sbit, 16-bit, flag, ascii,
byte_array, clientid, env>]
[match = <{exactly|as_substring}>]
mac [!] = <hardware-address with wildcard ex:
'00:9f:aa:*:*:*'>
[key = <{or|and}>]
subrule = <>
```

where:

| | | |
|------------|--|----------|
| name | The name of the DHCP rule. | REQUIRED |
| type | Specify the DHCP rule type. | REQUIRED |
| version | The DHCP version (v4/v6) of the option. | OPTIONAL |
| option [!] | The name or number of the option. If a value is preceded by a "!", it means NOT. | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |
| value | The value of the option. | OPTIONAL |
| match | The option value matching. | OPTIONAL |
| mac [!] | The mac address. If a value is preceded by a "!", it means NOT. | REQUIRED |
| key | The logical key of the subrule. | OPTIONAL |
| subrule | The name of the DHCP subrule. | REQUIRED |

dhcp rule debug traceconfig

Modify DHCP rule trace configuration

SYNTAX:

```
dhcp rule debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp rule delete

Delete a DHCP rule

SYNTAX:

```
dhcp rule delete          name = <>
                          subrule = <>
```

where:

| | | |
|---------|-------------------------------|----------|
| name | The name of the DHCP rule. | REQUIRED |
| subrule | The name of the DHCP subrule. | REQUIRED |

dhcp rule flush

Flush all DHCP rules

dhcp rule list

List all DHCP rules

dhcp server config

Print DHCP server configuration settings

SYNTAX:

```
dhcp server config [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|---------------------------------|----------|
| state | Enable/Disable the DHCP server. | OPTIONAL |
|-------|---------------------------------|----------|

dhcp server debug clear

Clear DHCP server statistics

dhcp server debug stats

Print DHCP server statistics

dhcp server debug traceconfig

Modify DHCP server trace configuration

SYNTAX:

```
dhcp server debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp server flush

Flush all DHCP server pool and lease entries

dhcp server lease add

Add a DHCP server lease

SYNTAX:

```
dhcp server lease add      clientid = <clientid>
                          pool = <{LAN_private}>
                          [addr = <ipv4-address>]
                          [offset = <number>]
                          [lifetime = <number>]
                          [leasetime = <number>]
                          [gateway = <ip-address|0|none>]
                          [macaddr = <hardware-address>]
                          [allocation = <{automatic|manual}>]
```

where:

| | | |
|------------|---|----------|
| clientid | The DHCP client identification string. | REQUIRED |
| pool | The name of the DHCP server pool. | REQUIRED |
| addr | The IP address for this client. | OPTIONAL |
| offset | The IP address offset in the pool preserved for this client. | OPTIONAL |
| lifetime | The time in seconds the DHCP server keeps the lease reserved (tip: 0 means infinite lifetime). | OPTIONAL |
| leasetime | The time in seconds the client is allowed to use an address (tip: 0 means infinite leasetime). | OPTIONAL |
| gateway | The IP address of the default router for this client. | OPTIONAL |
| macaddr | The host MAC address. | OPTIONAL |
| allocation | Define the client IP address allocation method (tip : automatic means the lease can be recycled). | OPTIONAL |

dhcp server lease delete

Delete a DHCP server lease

SYNTAX:

```
dhcp server lease delete      [clientid = <clientid>]  
                              [index = <number>]
```

where:

| | | |
|----------|--|----------|
| clientid | The DHCP client identification string. | OPTIONAL |
| index | The DHCP server lease table index. | OPTIONAL |

dhcp server lease flush

Flush all DHCP server leases

SYNTAX:

```
dhcp server lease flush [pool = <{LAN_private}>]
```

where:

| | | |
|------|---|----------|
| pool | The name of the DHCP server pool. Only the leases belonging to this pool will be deleted. | OPTIONAL |
|------|---|----------|

dhcp server lease list

List all DHCP server leases

SYNTAX:

```
dhcp server lease list      [clientid = <clientid>]
                           [index = <number>]
                           [expand = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| clientid | The DHCP client identification string. | OPTIONAL |
| index | The DHCP server lease table index. | OPTIONAL |
| expand | Expand enabled/disabled. | OPTIONAL |

dhcp server option flush

Flush all DHCP server option templates and instances

dhcp server option instadd

Add a DHCP server option instance

SYNTAX:

```
dhcp server option instadd      name = <string>
                                tplname = <>
                                [policy = <{requested|always|rules}>]
                                [dynamic = <{disabled|enabled}>]
                                [maxuse = <number{1-255}>]
                                [enterprise = <number{1-2147483647}>]
                                [suboption = <number{1-254}>]
                                value = <Value : (type)value; type being 8-
                                bit, 16-bit, 32-bit, addr, ascii, byte_array,
                                env>
```

where:

| | | |
|------------|--|----------|
| name | The name of the DHCP server option instance. | REQUIRED |
| tplname | The name of the DHCP server option template. | REQUIRED |
| policy | The transmit policy type for the DHCP server option instance. | OPTIONAL |
| dynamic | Enable/Disable option instance as dynamic. | OPTIONAL |
| maxuse | Maximum number of times an option instance can be used in DHCP pools | OPTIONAL |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |
| value | The value of the DHCP server option instance. | REQUIRED |

dhcp server option instdelete

Delete a DHCP server option instance

SYNTAX:

```
dhcp server option instdelete  name = <>
                               [enterprise = <number{1--1}>]
                               [suboption = <number{1-254}>]
```

where:

| | | |
|------------|--|----------|
| name | The name of the DHCP server option instance. | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |

dhcp server option instlist

List all DHCP server option instances

SYNTAX:

```
dhcp server option instlist [name = <>]
```

where:

| | | |
|------|--|----------|
| name | The name of the DHCP server option instance. | OPTIONAL |
|------|--|----------|

dhcp server option ruleadd

Add a selection rule to a DHCP server option instance

SYNTAX:

```
dhcp server option ruleadd      name = <>
                                [key = <{or|and}>]
                                rulename = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCP server option instance. | REQUIRED |
| key | The logical key of the selection rule. | OPTIONAL |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp server option ruledelete

Delete a selection rule from a DHCP server option instance

SYNTAX:

```
dhcp server option ruledelete  name = <>
                               rulename = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCP server option instance. | REQUIRED |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp server option tmladd

Add a DHCP server option template

SYNTAX:

```
dhcp server option tmladd      name = <string>
                               optionid = <number{1-254}>
                               [dynamic = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCP server option template. | REQUIRED |
| optionid | Specify the DHCP server option code. | REQUIRED |
| dynamic | Enable/Disable option template as dynamic. | OPTIONAL |

dhcp server option tmpldelete

Delete a DHCP server option template

SYNTAX:

```
dhcp server option tmpldelete name = <>
```

where:

| | | |
|------|--|----------|
| name | The name of the DHCP server option template. | REQUIRED |
|------|--|----------|

dhcp server option tmplist

List all DHCP server option templates

dhcp server policy

Print DHCP server policy settings

SYNTAX:

```
dhcp server policy          [verifyfirst = <{disabled|enabled}>]
                           [trustclient = <{disabled|enabled}>]
                           [rtbehaviour = <{traditional|standard|msft}>]
                           [ackinform = <{disabled|enabled}>]
```

where:

| | | |
|-------------|---|----------|
| verifyfirst | Enable/Disable IP address conflict network probing before handing out an address to a client. | OPTIONAL |
| trustclient | Whether or not the IP address suggested by a DHCP client should be taken into account. | OPTIONAL |
| rtbehaviour | Define the DHCP Server's route options behaviour. The options that are involved are: 3, 33, 121 and 249. "Traditional" will return 3 and/or 33; "standard" will return 3 and/or 33 or 121; "msft" will return 3 and/or 33 or 121 or 249 | OPTIONAL |
| ackinform | Enable/Disable DHCP inform acknowledgement for an unknown lease | OPTIONAL |

dhcp server pool add

Add a DHCP server pool

SYNTAX:

```
dhcp server pool add          name = <string>
                              [index = <number>]
```

where:

| | | |
|-------|--|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| index | The number of the pool before which you want the new pool to be added. | OPTIONAL |

dhcp server pool config

Configure a DHCP server pool

SYNTAX:

```
dhcp server pool config      name = <{LAN_private}>
                             [state = <{disabled|enabled}>]
                             [allocation = <{dynamic|automatic}>]
                             [intf = <{Internet|LocalNetwork}>]
                             [index = <number>]
                             [poolstart = <ipv4-address>]
                             [poolend = <ipv4-address>]
                             [netmask = <ip-mask(dotted or cidr)>]
                             [gateway = <ip-address|0|none>]
                             [server = <ip-address|none>]
                             [primdns = <ip-address|none>]
                             [secdns = <ip-address|none>]
                             [primwins = <ip-address|none>]
                             [secwins = <ip-address|none>]
                             [leasetime = <number{0-1814400}>]
                             [renewtime = <number{0-1814400}>]
                             [rebindtime = <number{0-1814400}>]
                             [lockouttime = <number{0-1814400}>]
                             [unnumbered = <{disabled|enabled}>]
                             [localgw = <{disabled|enabled}>]
                             [localdns = <{disabled|enabled}>]
```

where:

| | | |
|------------|--|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| state | Enable/Disable the DHCP server pool admin state. | OPTIONAL |
| allocation | Define the DHCP Server's pool allocation method (tip : automatic means the IP address becomes reserved for the lease). | OPTIONAL |
| intf | The interface for which the pool is allowed to lease IP addresses. | OPTIONAL |
| index | The number of the pool before which you want the new pool to be added. | OPTIONAL |
| poolstart | The DHCP server pool start IP address. | OPTIONAL |
| poolend | The DHCP server pool end IP address. | OPTIONAL |
| netmask | The DHCP server pool netmask. | OPTIONAL |
| gateway | The IP address of the default router for DHCP clients. | OPTIONAL |
| server | The IP address of the DHCP server for DHCP clients. | OPTIONAL |

| | | |
|-------------|--|----------|
| primdns | The IP address of the primary DNS server for DHCP clients. | OPTIONAL |
| secdns | The IP address of the secondary DNS server for DHCP clients. | OPTIONAL |
| primwins | The IP address of the primary WINS server for DHCP clients. | OPTIONAL |
| secwins | The IP address of the secondary WINS server for DHCP clients. | OPTIONAL |
| leasetime | The time in seconds a client is allowed to use an address (tip: 0 means infinite lease). | OPTIONAL |
| renewtime | The time in seconds before a client switches to renewing. | OPTIONAL |
| rebindtime | The time in seconds before a client switches to rebinding. | OPTIONAL |
| lockouttime | The time in seconds before a stopped lease becomes available again (tip: 0 means infinite lockout time). | OPTIONAL |
| unnumbered | Assign an IP address from this pool to the DHCP server or not (ppp pools only). | OPTIONAL |
| localgw | Proxy for a virtual default gateway residing in same subnet of DHCP client instead of the remote peer address. | OPTIONAL |
| localdns | Enable/Disable the transmission of the local DNS server in the DNS server option. | OPTIONAL |

dhcp server pool delete

Delete a DHCP server pool

SYNTAX:

```
dhcp server pool delete      name = <{LAN_private}>
```

where:

| | | |
|------|-----------------------------------|----------|
| name | The name of the DHCP server pool. | REQUIRED |
|------|-----------------------------------|----------|

dhcp server pool flush

Flush all DHCP server pools

dhcp server pool list

List all DHCP server pools

SYNTAX:

```
dhcp server pool list [name = <{LAN_private}>]
```

where:

| | | |
|------|-----------------------------------|----------|
| name | The name of the DHCP server pool. | OPTIONAL |
|------|-----------------------------------|----------|

dhcp server pool optadd

Add an option instance to the DHCP server pool

SYNTAX:

```
dhcp server pool optadd      name = <{LAN_private}>
                              instname = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| instname | The name of the DHCP server option instance. | REQUIRED |

dhcp server pool optdelete

Delete an option instance from the DHCP server pool

SYNTAX:

```
dhcp server pool optdelete      name = <{LAN_private}>
                                instname = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| instname | The name of the DHCP server option instance. | REQUIRED |

dhcp server pool rtadd

Add a route to the DHCP server pool

SYNTAX:

```
dhcp server pool rtadd      name = <{LAN_private}>
                             dst = <ipv4-address>
                             [dstmsk = <ip-mask(dotted or cidr)>]
                             [gateway = <ip-address|0>]
```

where:

| | | |
|---------|---|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| dst | The IP destination address of the route for DHCP clients. | REQUIRED |
| dstmsk | The destination IP address mask. | OPTIONAL |
| gateway | The IP address of the next hop. Must be directly connected to the DHCP client | OPTIONAL |

dhcp server pool rtdelete

Delete a route from the DHCP server pool

SYNTAX:

```
dhcp server pool rtdelete      name = <{LAN_private}>
                               dst = <ipv4-address>
                               [dstmsk = <ip-mask(dotted or cidr)>]
                               [gateway = <ip-address|0>]
```

where:

| | | |
|---------|---|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| dst | The IP destination address of the route for DHCP clients. | REQUIRED |
| dstmsk | The destination IP address mask. | OPTIONAL |
| gateway | The IP address of the next hop. Must be directly connected to the DHCP client | OPTIONAL |

dhcp server pool ruleadd

Add a selection rule to the DHCP server pool

SYNTAX:

```
dhcp server pool ruleadd      name = <{LAN_private}>
                              [key = <{or|and}>]
                              rulename = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| key | The logical key of the selection rule. | OPTIONAL |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp server pool ruledelete

Delete a selection rule from the DHCP server pool

SYNTAX:

```
dhcp server pool ruledelete      name = <{LAN_private}>
                                rulename = <>
```

where:

| | | |
|----------|--------------------------------------|----------|
| name | The name of the DHCP server pool. | REQUIRED |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp serverv6 config

Config DHCPv6 server configuration settings

SYNTAX:

```
dhcp serverv6 config [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-----------------------------------|----------|
| state | Enable/Disable the DHCPv6 server. | OPTIONAL |
|-------|-----------------------------------|----------|

dhcp server6 debug clear

Clear DHCPv6 server statistics

dhcp server6 debug stats

Print DHCPv6 server statistics

dhcp serverv6 debug traceconfig

Modify DHCPv6 server trace configuration

SYNTAX:

```
dhcp serverv6 debug          [state = <{disabled|enabled}>]  
traceconfig
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp server v6 flush

Flush DHCPv6 server pool configuration.

dhcp serverv6 option add

Add a DHCPv6 server option profile

SYNTAX:

```
dhcp serverv6 option add          name = <string>
```

where:

| | | |
|------|---------------------------------------|----------|
| name | The name of the DHCPv6 server option. | REQUIRED |
|------|---------------------------------------|----------|

dhcp serverv6 option delete

Delete a DHCPv6 server option profile

SYNTAX:

```
dhcp serverv6 option delete      name = <>
```

where:

| | | |
|------|---------------------------------------|----------|
| name | The name of the DHCPv6 server option. | REQUIRED |
|------|---------------------------------------|----------|

dhcp serverv6 option fieldadd

Add an option field to a DHCPv6 server option profile

SYNTAX:

```
dhcp serverv6 option fieldadd name = <>
                                option = <{preference|unicast|user-class|
                                vendor-class|vendor-specific-addr|domain-name-
                                servers|domain-name-search|nis-servers|nisp-
                                servers|nis-domain-name|nisp-domain-name|sntp-
                                servers|information-refresh-time|bcms-server-
                                d|bcms-server-a|pana-agent|new-posix-timezone|
                                new-tzdb-timezone|aftr-name} or number>
                                [enterprise = <number{1-2147483647}>]
                                [suboption = <number{1-65535}>]
                                [value = <Value : (type)value; optional type
                                being 8-bit, 8-sbit, 16-bit, byte_array, env>]
```

where:

| | | |
|------------|--|----------|
| name | The name of the DHCPv6 server option. | REQUIRED |
| option | The name or number of the option | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |
| value | The value of the DHCPv6 server option. | OPTIONAL |

dhcp serverv6 option fielddelete

Delete an option field from a DHCPv6 server option profile

SYNTAX:

```
dhcp serverv6 option          name = <>
fielddelete                   option = <{preference|unicast|user-class|
                                vendor-class|vendor-specific-addr|domain-name-
                                servers|domain-name-search|nis-servers|nisp-
                                servers|nis-domain-name|nisp-domain-name|sntp-
                                servers|information-refresh-time|bcms-server-
                                d|bcms-server-a|pana-agent|new-posix-timezone|
                                new-tzdb-timezone|aftr-name} or number>
                                [enterprise = <number{1-2147483647}>]
                                [suboption = <number{1-65535}>]
```

where:

| | | |
|------------|--|----------|
| name | The name of the DHCPv6 server option. | REQUIRED |
| option | The name or number of the option | REQUIRED |
| enterprise | The enterprise number (see http://www.iana.org/assignments/enterprise-numbers) | OPTIONAL |
| suboption | The suboption number | OPTIONAL |

dhcp serverv6 option flush

Flush all DHCPv6 server option profiles

dhcp serverv6 option list

List all DHCPv6 server option profiles

SYNTAX:

```
dhcp serverv6 option list [name = <>]
```

where:

| | | |
|------|---------------------------------------|----------|
| name | The name of the DHCPv6 server option. | OPTIONAL |
|------|---------------------------------------|----------|

dhcp serverv6 option modify

Modify the DHCPv6 server option profile parameters

SYNTAX:

```
dhcp serverv6 option modify      name = <>
                                [policy = <{requested|always|rules}>]
                                [maxuse = <number{1-255}>]
```

where:

| | | |
|--------|---|----------|
| name | The name of the DHCPv6 server option. | REQUIRED |
| policy | The transmit policy for the DHCPv6 server option. | OPTIONAL |
| maxuse | Maximum number of times a DHCPv6 option can be used in DHCPv6 pools | OPTIONAL |

dhcp server6 option optionlist

Lists all DHCPv6 Option Codes that can be used.

dhcp serverv6 option ruleadd

Add a selection rule to a DHCPv6 server option profile

SYNTAX:

```
dhcp serverv6 option ruleadd    name = <>
                                [key = <{or|and}>]
                                rulename = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCPv6 server option. | REQUIRED |
| key | The logical key of the selection rule. | OPTIONAL |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp serverv6 option ruledelete

Delete a selection rule from a DHCPv6 server option profile

SYNTAX:

```
dhcp serverv6 option          name = <>
ruledelete                    rulename = <>
```

where:

| | | |
|----------|---------------------------------------|----------|
| name | The name of the DHCPv6 server option. | REQUIRED |
| rulename | The name of the DHCP selection rule. | REQUIRED |

dhcp serverv6 pool add

Add a DHCPv6 server pool

SYNTAX:

```
dhcp serverv6 pool add      name = <string>  
                             [index = <number>]
```

where:

| | | |
|-------|--|----------|
| name | The name of the DHCPv6 server pool. | REQUIRED |
| index | The number of the pool before which you want the new pool to be added. | OPTIONAL |

dhcp serverv6 pool config

Configure a DHCPv6 server pool

SYNTAX:

```
dhcp serverv6 pool config      name = <{LAN6_pool}>
                               [state = <{disabled|enabled}>]
                               [intf = <{Internet|LocalNetwork}>]
                               [index = <number>]
                               [localdns = <{disabled|enabled}>]
```

where:

| | | |
|----------|---|----------|
| name | The name of the DHCPv6 server pool. | REQUIRED |
| state | Enable/Disable the DHCPv6 server pool admin state. | OPTIONAL |
| intf | The interface for which the pool is allowed to lease. | OPTIONAL |
| index | The number of the pool before which you want the new pool to be added. | OPTIONAL |
| localdns | Enable/Disable the transmission of the local DNS server in the DNS server option. | OPTIONAL |

dhcp serverv6 pool delete

Delete a DHCPv6 server pool

SYNTAX:

```
dhcp serverv6 pool delete      name = <{LAN6_pool}>
```

where:

| | | |
|------|-------------------------------------|----------|
| name | The name of the DHCPv6 server pool. | REQUIRED |
|------|-------------------------------------|----------|

dhcp serverv6 pool flush

Flush all DHCPv6 server pools

dhcp serverv6 pool list

List all DHCPv6 server pools

SYNTAX:

```
dhcp serverv6 pool list      [name = <{LAN6_pool}>]
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------------------------|----------|
| name | The name of the DHCPv6 server pool. | OPTIONAL |
| expand | Expand enabled/disabled. | OPTIONAL |

dhcp serverv6 pool optionadd

Add an option to the DHCPv6 server pool

SYNTAX:

```
dhcp serverv6 pool optionadd    name = <{LAN6_pool}>
                                optionname = <>
```

where:

| | | |
|------------|---------------------------------------|----------|
| name | The name of the DHCPv6 server pool. | REQUIRED |
| optionname | The name of the DHCPv6 server option. | REQUIRED |

dhcp serverv6 pool optiondelete

Delete an option from the DHCPv6 server pool

SYNTAX:

```
dhcp serverv6 pool          name = <{LAN6_pool}>
optiondelete                optionname = <>
```

where:

| | | |
|------------|---------------------------------------|----------|
| name | The name of the DHCPv6 server pool. | REQUIRED |
| optionname | The name of the DHCPv6 server option. | REQUIRED |

dhcp server6 pool ruleadd

Add a selection rule to the DHCPv6 server pool

SYNTAX:

```
dhcp server6 pool ruleadd      name = <{LAN6_pool}>
                                [key = <{or|and}>]
                                rulename = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCPv6 server pool. | REQUIRED |
| key | The logical key of the selection rule. | OPTIONAL |
| rulename | The name of the DHCPv6 selection rule. | REQUIRED |

dhcp serverv6 pool ruledelete

Delete a selection rule from the DHCPv6 server pool

SYNTAX:

```
dhcp serverv6 pool ruledelete  name = <{LAN6_pool}>
                               rulename = <>
```

where:

| | | |
|----------|--|----------|
| name | The name of the DHCPv6 server pool. | REQUIRED |
| rulename | The name of the DHCPv6 selection rule. | REQUIRED |

dhcp spoofing add

Add a Spoofing-Association

SYNTAX:

```
dhcp spoofing add          name = <string>
                           pool_name = <{LAN_private}>
                           ifname = <>
```

where:

| | | |
|-----------|--|----------|
| name | The name of the Association. | REQUIRED |
| pool_name | The name of the pool to be associated. | REQUIRED |
| ifname | The name of the interface on which a DHCP Client is defined. | REQUIRED |

dhcp spoofing attach

Enable a Spoofing-Association

SYNTAX:

```
dhcp spoofing attach name = <{|||}>
```

where:

| | | |
|------|------------------------------|----------|
| name | The name of the Association. | REQUIRED |
|------|------------------------------|----------|

dhcp spoofing config

Display/modify dhcp spoofing state

SYNTAX:

```
dhcp spoofing config [state = <{enabled|disabled}>]
```

where:

| | | |
|-------|--------------------------|----------|
| state | Enable/Disable spoofing. | OPTIONAL |
|-------|--------------------------|----------|

dhcp spoofing debug traceconfig

Display/modify DHCP spoofing trace configuratin

SYNTAX:

```
dhcp spoofing debug [state = <{disabled|enabled}>]  
traceconfig
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

dhcp spoofing delete

Delete a Spoofing-Association

SYNTAX:

```
dhcp spoofing delete          name = <{ | | }>
```

where:

| | | |
|------|------------------------------|----------|
| name | The name of the Association. | REQUIRED |
|------|------------------------------|----------|

dhcp spoofing detach

Disable a Spoofing-Association

SYNTAX:

```
dhcp spoofing detach name = <{|||}>
```

where:

| | | |
|------|------------------------------|----------|
| name | The name of the Association. | REQUIRED |
|------|------------------------------|----------|

dhcp spoofing flush

Flush all the associations and the options.

dhcp spoofing list

List the available Spoofing-Associations

SYNTAX:

```
dhcp spoofing list [name = <{|||}>]
```

where:

| | | |
|------|------------------------------|----------|
| name | The name of the Association. | OPTIONAL |
|------|------------------------------|----------|

dhcp spoofing option-add

Add a DHCP Option Code to a Spoofing-Association.

SYNTAX:

```
dhcp spoofing option-add      name = <{|||}>  
                              option = <number>
```

where:

| | | |
|--------|------------------------------|----------|
| name | The name of the Association. | REQUIRED |
| option | The option id. | REQUIRED |

dhcp spoofing option-delete

Delete a DHCP Option Code from a Spoofing-Association.

SYNTAX:

```
dhcp spoofing option-delete    name = <{|||}>  
                                option = <number>
```

where:

| | | |
|--------|------------------------------|----------|
| name | The name of the Association. | REQUIRED |
| option | The option id. | REQUIRED |

dns Commands

| | | |
|--|---|--------------|
| <i>dns client config</i> | <i>Modify the DNS resolver configuration.</i> | see page 275 |
| <i>dns client dnsadd</i> | <i>Add a DNS server.</i> | see page 276 |
| <i>dns client dnsdelete</i> | <i>Delete a DNS server.</i> | see page 277 |
| <i>dns client dnslist</i> | <i>List all DNS servers.</i> | see page 278 |
| <i>dns client flush</i> | <i>Remove all DNS servers.</i> | see page 279 |
| <i>dns client nslookup</i> | <i>DNS lookup for a domain name or an address.</i> | see page 280 |
| <i>dns server config</i> | <i>DNS server configuration settings</i> | see page 281 |
| <i>dns server debug clear</i> | <i>Clear the DNS server/forwarder statistics.</i> | see page 282 |
| <i>dns server debug spoof clear</i> | <i>Clear the intercept cache table</i> | see page 283 |
| <i>dns server debug spoof getaddress</i> | <i>Get the real ip for the given spoofed ip</i> | see page 284 |
| <i>dns server debug spoof getflags</i> | <i>Get the error flags for the given spoofed ip</i> | see page 285 |
| <i>dns server debug spoof list</i> | <i>List the intercept cache table.</i> | see page 286 |
| <i>dns server debug spoof update</i> | <i>update the intercept cache table</i> | see page 287 |
| <i>dns server debug stats</i> | <i>Print the DNS server/forwarder statistics.</i> | see page 288 |
| <i>dns server flush</i> | <i>Flush all local DNS hosts and forwards.</i> | see page 289 |
| <i>dns server forward dnsset add</i> | <i>Creates a DNS Set entry or template</i> | see page 290 |
| <i>dns server forward dnsset delete</i> | <i>Deletes a DNS Set</i> | see page 291 |
| <i>dns server forward dnsset flush</i> | <i>Removes all DNS Set entries and templates</i> | see page 292 |
| <i>dns server forward dnsset list</i> | <i>Lists all DNS Set entries and templates</i> | see page 293 |
| <i>dns server forward flush</i> | <i>Removes all DNS forward sets and rules.</i> | see page 294 |
| <i>dns server forward list</i> | <i>List rules and dnssets.</i> | see page 295 |
| <i>dns server forward rule add</i> | <i>Creates a DNS rule</i> | see page 296 |
| <i>dns server forward rule delete</i> | <i>Deletes a DNS rule</i> | see page 297 |
| <i>dns server forward rule flush</i> | <i>Removes all DNS rules</i> | see page 298 |
| <i>dns server forward rule list</i> | <i>Lists all DNS rules</i> | see page 299 |
| <i>dns server host add</i> | <i>Add a local DNS host</i> | see page 300 |
| <i>dns server host delete</i> | <i>Delete a local DNS host</i> | see page 301 |
| <i>dns server host flush</i> | <i>Flush all local DNS hosts</i> | see page 302 |

dns server host list

List all local DNS hosts

see page 303

dns client config

Modify the DNS resolver configuration.

SYNTAX:

```
dns client config [timeout = <number{1-900}>]
                  [retry = <number{0-10}>]
                  [state = <{disabled|enabled}>]
                  [search = <{disabled|enabled}>]
                  [list = <string>]
                  [trace = <{disabled|enabled}>]
```

where:

| | | |
|---------|---|----------|
| timeout | The query timeout in seconds. | OPTIONAL |
| retry | The number of query retries before giving up. | OPTIONAL |
| state | Enable/disable the DNS client. | OPTIONAL |
| search | Use the searchlist to construct fully qualified domain names. | OPTIONAL |
| list | Slash separated list of domain name suffixes. | OPTIONAL |
| trace | Enable or disable verbose logging. | OPTIONAL |

dns client dnsadd

Add a DNS server.

SYNTAX:

```
dns client dnsadd          addr = <string>
                           [port = <number>]
```

where:

| | | |
|------|-----------------------------|----------|
| addr | The DNS server IP address. | REQUIRED |
| port | The DNS server port number. | OPTIONAL |

dns client dnsdelete

Delete a DNS server.

SYNTAX:

```
dns client dnsdelete          index = <number{1-99}>
```

where:

| | | |
|-------|---|----------|
| index | The index number (shown by the 'list' command) of the server to delete. | REQUIRED |
|-------|---|----------|

dns client dnslist

List all DNS servers.

dns client flush

Remove all DNS servers.

dns client nslookup

DNS lookup for a domain name or an address.

SYNTAX:

```
dns client nslookup          host = <string>
```

where:

| | | |
|------|--------------------------------------|----------|
| host | The DNS domain name string to query. | REQUIRED |
|------|--------------------------------------|----------|

dns server config

DNS server configuration settings

SYNTAX:

```
dns server config      [domain = <string>]
                       [timeout = <number{0-120}>]
                       [suppress = <number{0-400}>]
                       [state = <{disabled|enabled}>]
                       [trace = <{disabled|enabled}>]
                       [syslog = <{disabled|enabled}>]
                       [WANDownSpoofing = <{disabled|enabled}>]
                       [WDSpoofedIP = <ipv4-address>]
                       [filter = <{disabled|enabled}>]
```

where:

| | | |
|-----------------|--|----------|
| domain | The DNS server domain name. | OPTIONAL |
| timeout | The forwarded DNS query timeout. | OPTIONAL |
| suppress | Suppress not more than specified amount of remote DNS server errors. | OPTIONAL |
| state | Enable/disable the local DNS server/forwarder. | OPTIONAL |
| trace | Enable/disable verbose console logging. | OPTIONAL |
| syslog | Enable/disable SYSLOG for DNS events. | OPTIONAL |
| WANDownSpoofing | Enable/disable DNS spoofing when no applicable forwarding route present. | OPTIONAL |
| WDSpoofedIP | IP address used for spoofing when WANDownSpoofing enabled. | OPTIONAL |
| filter | Enable/disable filtering of private address space and local IP addresses from forwarded replies. | OPTIONAL |

dns server debug clear

Clear the DNS server/forwarder statistics.

dns server debug spoof clear

Clear the intercept cache table

dns server debug spoof getaddress

Get the real ip for the given spoofed ip

SYNTAX:

```
dns server debug spoof      addr = <ipv4-address>
getaddress
```

where:

| | | |
|------|----------------------------|----------|
| addr | The spoofed ip to look up. | REQUIRED |
|------|----------------------------|----------|

dns server debug spoof getflags

Get the error flags for the given spoofed ip

SYNTAX:

```
dns server debug spoof      addr = <ipv4-address>  
getflags
```

where:

| | | |
|------|----------------------------|----------|
| addr | The spoofed ip to look up. | REQUIRED |
|------|----------------------------|----------|

dns server debug spoof list

List the intercept cache table.

dns server debug spoof update

update the intercept cache table

dns server debug stats

Print the DNS server/forwarder statistics.

dns server flush

Flush all local DNS hosts and forwards.

dns server forward dnsset add

Creates a DNS Set entry or template

SYNTAX:

```
dns server forward dnsset add  set = <number{0-200}>
                               dns = <ip-address>
                               [label = <{None|Interactive|Local|Management|
                               SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
                               default}>]
                               [metric = <number{0-100}>]
                               [intf = <{loop|Internet|LocalNetwork}>]
                               [udpsize = <number{512-4096}>]
                               [owner = <{PPP|DHCP|IPSEC}>]
```

where:

| | | |
|---------|---|----------|
| set | DNS Set id. If no rule matches, set ID=0 will be selected as default. | REQUIRED |
| dns | DNS Server to forward request to. Use 0.0.0.0 (IPv4) or :: (IPv6) to add a DNS Template. | REQUIRED |
| label | The label associated with the DNS entry or DNS Template. | OPTIONAL |
| metric | The metric for the DNS entry. The DNS Entry List is sorted on DNS Metric; the lower the metric, the higher the priority of the entry. Please note that metric-value of a template DNS is not replacing the metric-value, instead, it gets added to the already existing value received from the daemon. | OPTIONAL |
| intf | The interface associated with the DNS entry or DNS Template. | OPTIONAL |
| udpsize | Add an EDNS option indicating support for packets this large. | OPTIONAL |
| owner | Match on originating application (Templates only). | OPTIONAL |

dns server forward dnsset delete

Deletes a DNS Set

SYNTAX:

```
dns server forward dnsset      set = <number{0-200}>
delete                          dns = <ip-address>
                                [label = <{None|Interactive|Local|Management|
                                SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
                                default}>]
                                [metric = <number{0-100}>]
                                [intf = <{loop|Internet|LocalNetwork}>]
                                [owner = <{PPP|DHCP|IPSEC}>]
```

where:

| | | |
|--------|---|----------|
| set | DNS Set id. | REQUIRED |
| dns | DNS Server to forward request to. | REQUIRED |
| label | The label associated with the DNS entry or DNS Template. | OPTIONAL |
| metric | The metric for the DNS entry. The DNS Entry List is sorted on DNS Metric; the lower the metric, the higher the priority of the entry. | OPTIONAL |
| intf | The interface associated with the DNS set. | OPTIONAL |
| owner | Match on originating application (Templates only). | OPTIONAL |

dns server forward dnsset flush

Removes all DNS Set entries and templates

dns server forward dnsset list

Lists all DNS Set entries and templates

dns server forward flush

Removes all DNS forward sets and rules.

dns server forward list

List rules and dnssets.

SYNTAX:

```
dns server forward list [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

dns server forward rule add

Creates a DNS rule

SYNTAX:

```
dns server forward rule add      idx = <number{20-200}>
                                set = <number{0-200}>
                                [addr = <ip-prefix>]
                                [intf = <{loop|Internet|LocalNetwork}>]
                                [domain = <string>]
                                [qtype = <{A|AAAA}>]
```

where:

| | | |
|--------|--|----------|
| idx | The sequence ordering number of the rule. Range 0-19 are reserved for system use. | REQUIRED |
| set | Forward request using the specified dns set. | REQUIRED |
| addr | Match on source address or prefix. | OPTIONAL |
| intf | Match on source interface. | OPTIONAL |
| domain | Domain matching string. If configured, only those DNS queries of which the domain name in the query matches with the string configured for the entry will be forwarded to the corresponding DNS Server. Maximum string length: 62 characters | OPTIONAL |
| qtype | Match on this DNS Query type. | OPTIONAL |

dns server forward rule delete

Deletes a DNS rule

SYNTAX:

```
dns server forward rule delete [idx = <number{20-200}>]
```

where:

| | | |
|-----|-------------------------------------|----------|
| idx | The sequence of the rule to delete. | OPTIONAL |
|-----|-------------------------------------|----------|

dns server forward rule flush

Removes all DNS rules

dns server forward rule list

Lists all DNS rules

SYNTAX:

```
dns server forward rule list [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

dns server host add

Add a local DNS host

SYNTAX:

```
dns server host add          name = <string>
                             [addr = <ipv4-address>]
                             [addr6 = <ipv6-address>]
                             [ttl = <number>]
```

where:

| | | |
|-------|--------------------------------|----------|
| name | The name of an IP host to add. | REQUIRED |
| addr | The IPv4 address of the host. | OPTIONAL |
| addr6 | The IPv6 address of the host. | OPTIONAL |
| ttl | The lifetime of the host. | OPTIONAL |

dns server host delete

Delete a local DNS host

SYNTAX:

```
dns server host delete      name = <string>
```

where:

| | | |
|------|-----------------------------------|----------|
| name | The name of an IP host to delete. | REQUIRED |
|------|-----------------------------------|----------|

dns server host flush

Flush all local DNS hosts

dns server host list

List all local DNS hosts

download Commands

| | | |
|-----------------------------------|--|--------------|
| <i>download config</i> | <i>Change the upgrade daemon configuration</i> | see page 306 |
| <i>download debug sesslist</i> | <i>Display the list of sessions</i> | see page 307 |
| <i>download debug traceconfig</i> | <i>Enable/disable upgrade daemon tracing</i> | see page 308 |
| <i>download ifadd</i> | <i>Add a download interface</i> | see page 309 |
| <i>download ifattach</i> | <i>Attach a download interface</i> | see page 310 |
| <i>download ifconfig</i> | <i>Configure a download interface</i> | see page 311 |
| <i>download ifdelete</i> | <i>Delete a download interface</i> | see page 312 |
| <i>download ifdetach</i> | <i>Detach a download interface</i> | see page 313 |
| <i>download iflist</i> | <i>List download interfaces</i> | see page 314 |
| <i>download profile add</i> | <i>Add a new file profile description</i> | see page 315 |
| <i>download profile delete</i> | <i>Delete a file profile description</i> | see page 316 |
| <i>download profile list</i> | <i>Display a list of the file profile descriptions</i> | see page 317 |
| <i>download profile modify</i> | <i>Modify a file profile description</i> | see page 318 |
| <i>download start</i> | <i>Start a new upgrade</i> | see page 319 |

download config

Change the upgrade daemon configuration

SYNTAX:

```
download config [state = <{disabled|enabled}>]
                [protocol = <{tftp|ftp|http|https}>]
                [half-dhcp = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| state | The upgrade daemon state | OPTIONAL |
| protocol | The transfer protocol to be used for file download | OPTIONAL |
| half-dhcp | half-dhcp mode (use only DHCP Option 66) | OPTIONAL |

download debug sesslist

Display the list of sessions

download debug traceconfig

Enable/disable upgrade daemon tracing

SYNTAX:

```
download debug traceconfig state = <{disabled|enabled}>
```

where:

| | | |
|-------|--------------------------------|----------|
| state | The upgrade daemon trace state | REQUIRED |
|-------|--------------------------------|----------|

download ifadd

Add a download interface

SYNTAX:

```
download ifadd          intf = <string>
```

where:

| | | |
|------|----------------------|----------|
| intf | A download interface | REQUIRED |
|------|----------------------|----------|

download ifattach

Attach a download interface

SYNTAX:

```
download ifattach          intf = <>
```

where:

| | | |
|------|-----------------------|----------|
| intf | A download interface. | REQUIRED |
|------|-----------------------|----------|

download ifconfig

Configure a download interface

SYNTAX:

```
download ifconfig          intf = <>
                           [protocol = <{tftp|ftp|http|https}>]
                           [dest = <{loop|Internet|LocalNetwork}>]
                           [server = <string>]
                           [file = <string>]
                           [time = <number>]
```

where:

| | | |
|----------|-------------------------------|----------|
| intf | A download interface. | REQUIRED |
| protocol | The transfer protocol | OPTIONAL |
| dest | An network interface name. | OPTIONAL |
| server | The servername | OPTIONAL |
| file | The servername | OPTIONAL |
| time | download cycle time (in secs) | OPTIONAL |

download ifdelete

Delete a download interface

SYNTAX:

```
download ifdelete          intf = <>
```

where:

| | | |
|------|-----------------------|----------|
| intf | A download interface. | REQUIRED |
|------|-----------------------|----------|

download ifdetach

Detach a download interface

SYNTAX:

```
download ifdetach          intf = <>
```

where:

| | | |
|------|-----------------------|----------|
| intf | A download interface. | REQUIRED |
|------|-----------------------|----------|

download iflist

List download interfaces

download profile add

Add a new file profile description

SYNTAX:

```
download profile add          extension = <{sts|ini|bin}>
                             [maxsize(KBytes) = <number>]
                             action = <{none|config_load|script_load|
                             reboot|upgrade}>
```

where:

| | | |
|-----------------|---|----------|
| extension | The extension of the new file profile | REQUIRED |
| maxsize(KBytes) | The maximum filesize (in KBytes) allowed for files with the extension of this profile | OPTIONAL |
| action | The action to be done when the file with the extension of this profile is downloaded | REQUIRED |

download profile delete

Delete a file profile description

SYNTAX:

```
download profile delete          extension = <{sts|ini|bin}>
```

where:

| | | |
|-----------|---|----------|
| extension | The extension of the file profile to be deleted | REQUIRED |
|-----------|---|----------|

download profile list

Display a list of the file profile descriptions

download profile modify

Modify a file profile description

SYNTAX:

```
download profile modify      extension = <{sts|ini|bin}>
                             [maxsize(KBytes) = <number>]
                             action = <{none|config_load|script_load|
                             reboot|upgrade}>
```

where:

| | | |
|-----------------|---|----------|
| extension | The extension of the new file profile | REQUIRED |
| maxsize(KBytes) | The maximum filesize (in KBytes) allowed for files with the extension of this profile | OPTIONAL |
| action | The action to be done when the file with the extension of this profile is downloaded | REQUIRED |

download start

Start a new upgrade

SYNTAX:

```
download start          protocol = <{tftp|ftp|http|https}>
                        [server = <string>]
                        [filename = <string>]
```

where:

| | | |
|----------|--|----------|
| protocol | The protocol to be used for the download | REQUIRED |
| server | The server name or IP address | OPTIONAL |
| filename | The file to be downloaded | OPTIONAL |

dsd Commands

| | | |
|---|--|--------------|
| <i>dsd config</i> | <i>Display/modify DSD framework configuration</i> | see page 323 |
| <i>dsd debug config</i> | <i>Display/modify DSD debug settings</i> | see page 324 |
| <i>dsd debug connection list</i> | <i>Display internal connection pool usage</i> | see page 325 |
| <i>dsd debug proxy</i> | <i>Display/modify HTTPPI fixed proxy settings</i> | see page 326 |
| <i>dsd debug recycling</i> | <i>Display/modify HTTPPI recycling settings</i> | see page 327 |
| <i>dsd debug stats</i> | <i>Display/clear DSD framework and module statistics</i> | see page 328 |
| <i>dsd intercept config</i> | <i>Display/modify HTTP Intercept configuration</i> | see page 329 |
| <i>dsd syslog config</i> | <i>Display/modify HTTPPI logging configuration</i> | see page 330 |
| <i>dsd syslog list</i> | <i>Display HTTPPI log file</i> | see page 331 |
| <i>dsd urlfilter config</i> | <i>Display/modify url filtering configuration</i> | see page 332 |
| <i>dsd urlfilter rule add</i> | <i>Add a rule</i> | see page 333 |
| <i>dsd urlfilter rule delete</i> | <i>Remove a rule</i> | see page 334 |
| <i>dsd urlfilter rule flush</i> | <i>Remove all current rules</i> | see page 335 |
| <i>dsd urlfilter rule list</i> | <i>Display a list of current rules</i> | see page 336 |
| <i>dsd urlfilter rule modify</i> | <i>Modify an existing rule</i> | see page 337 |
| <i>dsd webfilter cache flush</i> | <i>Empty internal cache</i> | see page 338 |
| <i>dsd webfilter cache stats</i> | <i>Display cache statistics</i> | see page 339 |
| <i>dsd webfilter config</i> | <i>Configure web filter</i> | see page 340 |
| <i>dsd webfilter list</i> | <i>Display web filter license state</i> | see page 341 |
| <i>dsd webfilter professional category add</i> | <i>Add a category to a group</i> | see page 342 |
| <i>dsd webfilter professional category create</i> | <i>Create a category or group</i> | see page 343 |
| <i>dsd webfilter professional category delete</i> | <i>Delete a category or group</i> | see page 344 |
| <i>dsd webfilter professional category flush</i> | <i>Delete all categories and groups</i> | see page 345 |
| <i>dsd webfilter professional category list</i> | <i>List all categories and groups</i> | see page 346 |
| <i>dsd webfilter professional category remove</i> | <i>Remove a category from a group</i> | see page 347 |
| <i>dsd webfilter professional config</i> | | see page 348 |
| <i>dsd webfilter professional level add</i> | <i>Add a new web filtering level</i> | see page 349 |
| <i>dsd webfilter professional level delete</i> | <i>Delete a web filtering level</i> | see page 350 |

| | | |
|--|---|--------------|
| <i>dsd webfilter professional level flush</i> | <i>Delete all levels</i> | see page 351 |
| <i>dsd webfilter professional level list</i> | <i>Display levels</i> | see page 352 |
| <i>dsd webfilter professional level modify</i> | <i>Modify a web filtering level</i> | see page 353 |
| <i>dsd webfilter professional level set</i> | <i>Set current web filtering level</i> | see page 354 |
| <i>dsd webfilter professional rule clear</i> | <i>Reset level to default rule</i> | see page 355 |
| <i>dsd webfilter professional rule list</i> | <i>List all rules</i> | see page 356 |
| <i>dsd webfilter professional rule modify</i> | <i>Modify a rule</i> | see page 357 |
| <i>dsd webfilter server add</i> | <i>Add a web filter server</i> | see page 358 |
| <i>dsd webfilter server config</i> | <i>Configure web filter server</i> | see page 359 |
| <i>dsd webfilter server delete</i> | <i>Delete a web filter server</i> | see page 360 |
| <i>dsd webfilter server flush</i> | <i>Flush server list</i> | see page 361 |
| <i>dsd webfilter server list</i> | <i>List all web filter servers</i> | see page 362 |
| <i>dsd webfilter server modify</i> | <i>Modify a web filter server</i> | see page 363 |
| <i>dsd webfilter standard category add</i> | <i>Add a category to a group</i> | see page 364 |
| <i>dsd webfilter standard category create</i> | <i>Create a category or group</i> | see page 365 |
| <i>dsd webfilter standard category delete</i> | <i>Delete a category or group</i> | see page 366 |
| <i>dsd webfilter standard category flush</i> | <i>Delete all categories and groups</i> | see page 367 |
| <i>dsd webfilter standard category list</i> | <i>List all categories and groups</i> | see page 368 |
| <i>dsd webfilter standard category remove</i> | <i>Remove a category from a group</i> | see page 369 |
| <i>dsd webfilter standard config</i> | | see page 370 |
| <i>dsd webfilter standard level add</i> | <i>Add a new web filtering level</i> | see page 371 |
| <i>dsd webfilter standard level delete</i> | <i>Delete a web filtering level</i> | see page 372 |
| <i>dsd webfilter standard level flush</i> | <i>Delete all levels</i> | see page 373 |
| <i>dsd webfilter standard level list</i> | <i>Display levels</i> | see page 374 |
| <i>dsd webfilter standard level modify</i> | <i>Modify a web filtering level</i> | see page 375 |
| <i>dsd webfilter standard level set</i> | <i>Set current web filtering level</i> | see page 376 |
| <i>dsd webfilter standard rule clear</i> | <i>Reset level to default rule</i> | see page 377 |
| <i>dsd webfilter standard rule list</i> | <i>List all rules</i> | see page 378 |
| <i>dsd webfilter standard rule modify</i> | <i>Modify a rule</i> | see page 379 |

dsd config

Display/modify DSD framework configuration

SYNTAX:

```
dsd config [state = <{disabled|enabled|automatic}>]
```

where:

| | | |
|-------|------------------------------|----------|
| state | DSD framework operation mode | OPTIONAL |
|-------|------------------------------|----------|

dsd debug config

Display/modify DSD debug settings

SYNTAX:

```
dsd debug config [turbomode = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--------------------------|----------|
| turbomode | Enable/disable turbomode | OPTIONAL |
|-----------|--------------------------|----------|

dsd debug connection list

Display internal connection pool usage

SYNTAX:

```
dsd debug connection list [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

dsd debug proxy

Display/modify HTTPPI fixed proxy settings

SYNTAX:

```
dsd debug proxy [state = <{disabled|enabled}>]
                [dest = <ipv4-address>]
                [port = <{undefined|at-echo|at-nbp|at-rtmp|at-
                zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
                gopher|h323|httpproxy|ike|ils|imap2|imap3|
                ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
                ldap|login|netbios-dgm|netbios-ns|netbios-
                ssn|netwall|netware-ip|new-rwho|nfs|nicname|
                nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
                gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                sunrpc|syslog|sysstat|talk|telnet|time|timed|
                tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
                http|whoami|xwindows} or number>]
```

where:

| | | |
|-------|--|----------|
| state | Enable/disable fixed proxy redirecting | OPTIONAL |
| dest | Destination IP where requests will be forwarded to | OPTIONAL |
| port | Port used for connecting to the proxy IP | OPTIONAL |

dsd debug recycling

Display/modify HTTP/1.1 recycling settings

SYNTAX:

```
dsd debug recycling      [state = <{disabled|enabled}>]
                        [interval = <number>]
                        [httpidle = <number>]
                        [otheridle = <number>]
```

where:

| | | |
|-----------|--|----------|
| state | Enable/disable stream recycling | OPTIONAL |
| interval | Time between successive activity checks | OPTIONAL |
| httpidle | Minimal idle count for recycling (filtered) http streams | OPTIONAL |
| otheridle | Minimal idle count for recycling other streams | OPTIONAL |

dsd debug stats

Display/clear DSD framework and module statistics

SYNTAX:

```
dsd debug stats [name = <{intercept|urlfilter|recycling|
                syslog|all}>]
                [clear = <{no|yes}>]
```

where:

| | | |
|-------|--------------------------------|----------|
| name | Specify the name of a module | OPTIONAL |
| clear | Clear the specified statistics | OPTIONAL |

dsd intercept config

Display/modify HTTP Intercept configuration

SYNTAX:

```
dsd intercept config      [WDSpoofedIP = <ipv4-address>]
                          [servertimeout = <number>]
                          [connecterrorurl = <string>]
                          [categoryerrorurl = <string>]
                          [monitorintercepturl = <string>]
                          [unauthorizedrequrl = <string>]
                          [imageredirect = <{disabled|enabled}>]
                          [imageredirecturl = <string>]
                          [alwaysuseip = <{disabled|enabled}>]
```

where:

| | | |
|---------------------|---|----------|
| WDSpoofedIP | IP address indicating unavailable WAN connection. | OPTIONAL |
| servertimeout | Server timeout for redirect action | OPTIONAL |
| connecterrorurl | Destination url when connection to server failed | OPTIONAL |
| categoryerrorurl | Destination url when connection to category server failed | OPTIONAL |
| monitorintercepturl | Destination url when request is intercepted by monitor thread | OPTIONAL |
| unauthorizedrequrl | Destination url when requested url is blocked by some rule or setting | OPTIONAL |
| imageredirect | Enable/disable substituting blocked images | OPTIONAL |
| imageredirecturl | URL of image used when substituting blocked images | OPTIONAL |
| alwaysuseip | Always use ip address when redirecting to a local page | OPTIONAL |

dsd syslog config

Display/modify HTTPPI logging configuration

SYNTAX:

```
dsd syslog config [syslog = <{none|unauthorized|errors|intercepted|all}>]
```

where:

| | | |
|--------|------------------------------------|----------|
| syslog | Define which type of events to log | OPTIONAL |
|--------|------------------------------------|----------|

dsd syslog list

Display HTTPPI log file

dsd urlfilter config

Display/modify url filtering configuration

SYNTAX:

```
dsd urlfilter config      [state = <{disabled|enabled}>]
                          [blockproxy = <{disabled|enabled}>]
                          [blockipaddress = <{disabled|enabled}>]
                          [blockobscuredip = <{disabled|enabled}>]
                          [defaultaction = <{block|accept}>]
```

where:

| | | |
|-----------------|--|----------|
| state | Enable/disable url filtering | OPTIONAL |
| blockproxy | Block HTTP requests via a proxy server | OPTIONAL |
| blockipaddress | Block HTTP requests if host name is IP address | OPTIONAL |
| blockobscuredip | Block HTTP requests if host name is believed to be an IP address | OPTIONAL |
| defaultaction | Action to perform when no filter applicable. | OPTIONAL |

dsd urlfilter rule add

Add a rule

SYNTAX:

```
dsd urlfilter rule add      url = <string>
                           action = <{block|accept|redirect}>
                           redirect = <string>
```

where:

| | | |
|----------|--|----------|
| url | Definition of the url filter | REQUIRED |
| action | Action to perform when url matches url | REQUIRED |
| redirect | Redirection url | REQUIRED |

dsd urlfilter rule delete

Remove a rule

SYNTAX:

```
dsd urlfilter rule delete      index = <number>
                               [url = <string>]
```

where:

| | | |
|-------|--------------------------------|----------|
| index | Insertion position in the list | REQUIRED |
| url | Definition of the url filter | OPTIONAL |

dsd urlfilter rule flush

Remove all current rules

dsd urlfilter rule list

Display a list of current rules

dsd urlfilter rule modify

Modify an existing rule

SYNTAX:

```
dsd urlfilter rule modify      index = <number>
                               [newurl = <string>]
                               action = <{block|accept|redirect}>
                               redirect = <string>
```

where:

| | | |
|----------|--|----------|
| index | Insertion position in the list | REQUIRED |
| newurl | Definition of the new url filter | OPTIONAL |
| action | Action to perform when url matches url | REQUIRED |
| redirect | Redirection url | REQUIRED |

dsd webfilter cache flush

Empty internal cache

dsd webfilter cache stats

Display cache statistics

SYNTAX:

```
dsd webfilter cache stats [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|---------------------------|----------|
| expand | More detailed statistics. | OPTIONAL |
|--------|---------------------------|----------|

dsd webfilter config

Configure web filter

SYNTAX:

```
dsd webfilter config      [state = <{enabled|disabled}>]
                          [serverunreachable = <{block-all|accept-all}>]
                          [uncategorized = <{block|accept}>]
                          [license = <{none|trial|standard|
                          professional}>]
                          [ticket = <string>]
                          [sessionkey = <string>]
```

where:

| | | |
|-------------------|---|----------|
| state | Enable or disable the web filter | OPTIONAL |
| serverunreachable | Block or allow requests when the categorization server is unreachable | OPTIONAL |
| uncategorized | Block or allow requests for which no category is available | OPTIONAL |
| license | | OPTIONAL |
| ticket | | OPTIONAL |
| sessionkey | | OPTIONAL |

dsd webfilter list

Display web filter license state

dsd webfilter professional category add

Add a category to a group

SYNTAX:

```
dsd webfilter professional    destid = <number>
category add                  srcid = <number>
```

where:

| | | |
|--------|-------------------------------|----------|
| destid | Destination category or group | REQUIRED |
| srcid | Category ID to add | REQUIRED |

dsd webfilter professional category create

Create a category or group

SYNTAX:

```
dsd webfilter professional      id = <number>
category create                 name = <quoted string>
                                type = <{category|group}>
```

where:

| | | |
|------|--|----------|
| id | Unique local ID for the category/group | REQUIRED |
| name | Friendly name | REQUIRED |
| type | | REQUIRED |

dsd webfilter professional category delete

Delete a category or group

SYNTAX:

```
dsd webfilter professional      id = <number>  
category delete
```

where:

| | | |
|----|--|----------|
| id | Unique local ID for the category/group | REQUIRED |
|----|--|----------|

dsd webfilter professional category flush

Delete all categories and groups

dsd webfilter professional category list

List all categories and groups

SYNTAX:

```
dsd webfilter professional [type = <{category|group}>]  
category list
```

where:

type

OPTIONAL

dsd webfilter professional category remove

Remove a category from a group

SYNTAX:

```
dsd webfilter professional      destid = <number>
category remove                 srcid = <number>
```

where:

| | | |
|--------|-------------------------------|----------|
| destid | Destination category or group | REQUIRED |
| srcid | Category ID to add | REQUIRED |

dsd webfilter professional config

SYNTAX:

```
dsd webfilter professional [listversion = <string>]
config [validcatmask = <string>]
```

where:

| | |
|--------------|----------|
| listversion | OPTIONAL |
| validcatmask | OPTIONAL |

dsd webfilter professional level add

Add a new web filtering level

SYNTAX:

```
dsd webfilter professional      index = <number>
level add                       name = <string>
                                [text = <quoted string>]
                                [otherurls = <{block|accept}>]
```

where:

| | | |
|-----------|---|----------|
| index | Level index (-1 for next available) | REQUIRED |
| name | Content category level name | REQUIRED |
| text | Friendly description | OPTIONAL |
| otherurls | Block or allow requests that do not belong to a specific category | OPTIONAL |

dsd webfilter professional level delete

Delete a web filtering level

SYNTAX:

```
dsd webfilter professional      index = <number>
level delete                    name = <string>
                                [text = <quoted string>]
                                [otherurls = <{block|accept}>]
```

where:

| | | |
|-----------|---|----------|
| index | Level index (-1 for next available) | REQUIRED |
| name | Content category level name | REQUIRED |
| text | Friendly description | OPTIONAL |
| otherurls | Block or allow requests that do not belong to a specific category | OPTIONAL |

dsd webfilter professional level flush

Delete all levels

dsd webfilter professional level list

Display levels

dsd webfilter professional level modify

Modify a web filtering level

SYNTAX:

```
dsd webfilter professional      index = <number>
level modify                    name = <string>
                                [text = <quoted string>]
                                [otherurls = <{block|accept}>]
```

where:

| | | |
|-----------|---|----------|
| index | Level index (-1 for next available) | REQUIRED |
| name | Content category level name | REQUIRED |
| text | Friendly description | OPTIONAL |
| otherurls | Block or allow requests that do not belong to a specific category | OPTIONAL |

dsd webfilter professional level set

Set current web filtering level

SYNTAX:

```
dsd webfilter professional      name = <string>  
level set
```

where:

| | | |
|------|------------------------------------|----------|
| name | Name of the current category level | REQUIRED |
|------|------------------------------------|----------|

dsd webfilter professional rule clear

Reset level to default rule

SYNTAX:

```
dsd webfilter professional    level = <string>  
rule clear
```

where:

| level | Level name | REQUIRED |
|-------|------------|----------|
|-------|------------|----------|

dsd webfilter professional rule list

List all rules

SYNTAX:

```
dsd webfilter professional [level = <string>]
rule list
```

where:

| level | Level name | OPTIONAL |
|-------|------------|----------|
|-------|------------|----------|

dsd webfilter professional rule modify

Modify a rule

SYNTAX:

```
dsd webfilter professional    level = <string>
rule modify                  [id = <number>]
                             action = <{block|accept}>
```

where:

| | | |
|--------|--------------------|----------|
| level | Level name | REQUIRED |
| id | Server category ID | OPTIONAL |
| action | | REQUIRED |

dsd webfilter server add

Add a web filter server

SYNTAX:

```
dsd webfilter server add      [index = <number>]
                             address = <ipv4-address>
                             port = <{undefined|at-echo|at-nbp|at-rtmp|at-
                             zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
                             gopher|h323|httpproxy|ike|ils|imap2|imap3|
                             ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
                             ldap|login|netbios-dgm|netbios-ns|netbios-
                             ssn|netwall|netware-ip|new-rwho|nfs|nicname|
                             nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
                             gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                             snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                             sunrpc|syslog|sysstat|talk|telnet|time|timed|
                             tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
                             http|whoami|xwindows} or number>
```

where:

| parameter | description | required |
|-----------|-------------------|----------|
| index | Server index | OPTIONAL |
| address | Server IP address | REQUIRED |
| port | Server port | REQUIRED |

dsd webfilter server config

Configure web filter server

SYNTAX:

```
dsd webfilter server config [listversion = <string>]
                             [retries = <number>]
                             [servertimeout = <number>]
                             [timeoutmultiplier = <number>]
                             [renewfrequency = <number>]
                             [useproxy = <{disabled|enabled}>]
                             [proxyserver = <ipv4-address>]
                             [proxyport = <{undefined|at-echo|at-nbp|at-
rtmp|at-zis|auth|bgp|biff|bootpc|exec|finger|
ftp|ftp-data|gopher|h323|httpproxy|ike|ils|
imap2|imap3|ingres-net|ipcsrv|ipx|irc-o|
irc-u|kerberos|ldap|login|netbios-dgm|netbios-
ns|netbios-ssn|netwall|netware-ip|new-rwho|
nfs|nicname|nntp|ntalk|ntp|pcmail-srv|pop2|
pop3|printer|qotd|realaudio|rip|rtelnet|rtsp|
sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
```

where:

| | | |
|-------------------|---|----------|
| listversion | | OPTIONAL |
| retries | Number of server contact retries | OPTIONAL |
| servertimeout | Cobion server timeout in seconds | OPTIONAL |
| timeoutmultiplier | Timeout for reporting server error to client (timeout * multiplier) | OPTIONAL |
| renewfrequency | Frequency (in hours) to check license and list versions | OPTIONAL |
| useproxy | Enable or disable the use of a proxy server | OPTIONAL |
| proxyserver | Proxy server to be used | OPTIONAL |
| proxyport | Proxy server port to be used | OPTIONAL |

dsd webfilter server delete

Delete a web filter server

SYNTAX:

```
dsd webfilter server delete      index = <number>
                                address = <ipv4-address>
                                port = <{undefined|at-echo|at-nbp|at-rtmp|at-
                                zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
                                gopher|h323|httpproxy|ike|ils|imap2|imap3|
                                ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
                                ldap|login|netbios-dgm|netbios-ns|netbios-
                                ssn|netwall|netware-ip|new-rwho|nfsd|nicname|
                                nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
                                gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                                snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                                sunrpc|syslog|sysstat|talk|telnet|time|timed|
                                tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
                                http|whoami|xwindows} or number>
```

where:

| index | Server index | REQUIRED |
|---------|-------------------|----------|
| address | Server IP address | REQUIRED |
| port | Server port | REQUIRED |

dsd webfilter server flush

Flush server list

dsd webfilter server list

List all web filter servers

dsd webfilter server modify

Modify a web filter server

SYNTAX:

```
dsd webfilter server modify      index = <number>
                                address = <ipv4-address>
                                port = <{undefined|at-echo|at-nbp|at-rtmp|at-
                                zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
                                gopher|h323|httpproxy|ike|ils|imap2|imap3|
                                ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
                                ldap|login|netbios-dgm|netbios-ns|netbios-
                                ssn|netwall|netware-ip|new-rwho|nfs|nicname|
                                nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
                                gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                                snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                                sunrpc|syslog|sysstat|talk|telnet|time|timed|
                                tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
                                http|whoami|xwindows} or number>
```

where:

| | | |
|---------|-------------------|----------|
| index | Server index | REQUIRED |
| address | Server IP address | REQUIRED |
| port | Server port | REQUIRED |

dsd webfilter standard category add

Add a category to a group

SYNTAX:

```
dsd webfilter standard      destid = <number>
category add                srcid = <number>
```

where:

| | | |
|--------|-------------------------------|----------|
| destid | Destination category or group | REQUIRED |
| srcid | Category ID to add | REQUIRED |

dsd webfilter standard category create

Create a category or group

SYNTAX:

```
dsd webfilter standard      id = <number>
category create             name = <quoted string>
                             type = <{category|group}>
```

where:

| | | |
|------|--|----------|
| id | Unique local ID for the category/group | REQUIRED |
| name | Friendly name | REQUIRED |
| type | | REQUIRED |

dsd webfilter standard category delete

Delete a category or group

SYNTAX:

```
dsd webfilter standard      id = <number>  
category delete
```

where:

| | | |
|----|--|----------|
| id | Unique local ID for the category/group | REQUIRED |
|----|--|----------|

dsd webfilter standard category flush

Delete all categories and groups

dsd webfilter standard category list

List all categories and groups

SYNTAX:

```
dsd webfilter standard [type = <{category|group}>]  
category list
```

where:

type

OPTIONAL

dsd webfilter standard category remove

Remove a category from a group

SYNTAX:

```
dsd webfilter standard      destid = <number>
category remove            srcid = <number>
```

where:

| | | |
|--------|-------------------------------|----------|
| destid | Destination category or group | REQUIRED |
| srcid | Category ID to add | REQUIRED |

dsd webfilter standard config

SYNTAX:

```
dsd webfilter standard config [stdmax = <number>]
                               [validcatmask = <string>]
```

where:

| | |
|--------------|----------|
| stdmax | OPTIONAL |
| validcatmask | OPTIONAL |

dsd webfilter standard level add

Add a new web filtering level

SYNTAX:

```
dsd webfilter standard level    index = <number>
add                             name = <string>
                                [text = <quoted string>]
                                [otherurls = <{block|accept}>]
```

where:

| | | |
|-----------|---|----------|
| index | Level index (-1 for next available) | REQUIRED |
| name | Content category level name | REQUIRED |
| text | Friendly description | OPTIONAL |
| otherurls | Block or allow requests that do not belong to a specific category | OPTIONAL |

dsd webfilter standard level delete

Delete a web filtering level

SYNTAX:

```
dsd webfilter standard level    index = <number>
delete                          name = <string>
                                [text = <quoted string>]
                                [otherurls = <{block|accept}>]
```

where:

| | | |
|-----------|---|----------|
| index | Level index (-1 for next available) | REQUIRED |
| name | Content category level name | REQUIRED |
| text | Friendly description | OPTIONAL |
| otherurls | Block or allow requests that do not belong to a specific category | OPTIONAL |

dsd webfilter standard level flush

Delete all levels

dsd webfilter standard level list

Display levels

dsd webfilter standard level modify

Modify a web filtering level

SYNTAX:

```
dsd webfilter standard level    index = <number>
modify                          name = <string>
                                [text = <quoted string>]
                                [otherurls = <{block|accept}>]
```

where:

| | | |
|-----------|---|----------|
| index | Level index (-1 for next available) | REQUIRED |
| name | Content category level name | REQUIRED |
| text | Friendly description | OPTIONAL |
| otherurls | Block or allow requests that do not belong to a specific category | OPTIONAL |

dsd webfilter standard level set

Set current web filtering level

SYNTAX:

```
dsd webfilter standard level    name = <string>
set
```

where:

| | | |
|------|------------------------------------|----------|
| name | Name of the current category level | REQUIRED |
|------|------------------------------------|----------|

dsd webfilter standard rule clear

Reset level to default rule

SYNTAX:

```
dsd webfilter standard rule    level = <string>
clear
```

where:

| level | Level name | REQUIRED |
|-------|------------|----------|
|-------|------------|----------|

dsd webfilter standard rule list

List all rules

SYNTAX:

```
dsd webfilter standard rule    [level = <string>]  
list
```

where:

| | | |
|-------|------------|----------|
| level | Level name | OPTIONAL |
|-------|------------|----------|

dsd webfilter standard rule modify

Modify a rule

SYNTAX:

```
dsd webfilter standard rule    level = <string>
modify                          [id = <number>]
                                action = <{block|accept}>
```

where:

| | | |
|--------|--------------------|----------|
| level | Level name | REQUIRED |
| id | Server category ID | OPTIONAL |
| action | | REQUIRED |

dyndns Commands

| | | |
|------------------------------|---|--------------|
| <i>dyndns add</i> | <i>Add a dynamic DNS client.</i> | see page 382 |
| <i>dyndns delete</i> | <i>Delete a dynamic DNS client.</i> | see page 383 |
| <i>dyndns flush</i> | <i>Delete all dynamic DNS clients.</i> | see page 384 |
| <i>dyndns host add</i> | <i>Add a fully qualified host name</i> | see page 385 |
| <i>dyndns host delete</i> | <i>Delete a host name</i> | see page 386 |
| <i>dyndns host flush</i> | <i>Delete all host names</i> | see page 387 |
| <i>dyndns host list</i> | <i>List all host names</i> | see page 388 |
| <i>dyndns list</i> | <i>List all dynamic DNS clients.</i> | see page 389 |
| <i>dyndns modify</i> | <i>Modify a dynamic DNS client.</i> | see page 390 |
| <i>dyndns service list</i> | <i>List all dynamic DNS services</i> | see page 391 |
| <i>dyndns service modify</i> | <i>Modify specific dynamic DNS service settings</i> | see page 392 |

dyndns add

Add a dynamic DNS client.

SYNTAX:

```
dyndns add name = <string>
```

where:

| | | |
|------|------------------------------|----------|
| name | The dynamic DNS client name. | REQUIRED |
|------|------------------------------|----------|

dyndns delete

Delete a dynamic DNS client.

SYNTAX:

```
dyndns delete name = <>
```

where:

| | | |
|------|------------------------------|----------|
| name | The dynamic DNS client name. | REQUIRED |
|------|------------------------------|----------|

dyndns flush

Delete all dynamic DNS clients.

dyndns host add

Add a fully qualified host name

SYNTAX:

```
dyndns host add                group = <>  
                                name = <string>
```

where:

| | | |
|-------|--------------------------------|----------|
| group | The dynamic DNS host group. | REQUIRED |
| name | The name of an IP host to add. | REQUIRED |

dyndns host delete

Delete a host name

SYNTAX:

```
dyndns host delete          name = <>
```

where:

| | | |
|------|-----------------------------------|----------|
| name | The name of an IP host to delete. | REQUIRED |
|------|-----------------------------------|----------|

dyndns host flush

Delete all host names

dyndns host list

List all host names

dyndns list

List all dynamic DNS clients.

dyndns modify

Modify a dynamic DNS client.

SYNTAX:

```
dyndns modify          name = <>
                        [intf = <{Internet}>]
                        [user = <string>]
                        [password = <password>]
                        [group = <>]
                        [mx = <string>]
                        [backmx = <{disabled|enabled}>]
                        [wildcard = <{disabled|enabled}>]
                        [offline = <{disabled|enabled}>]
                        [service = <{dyndns|statdns|custom|No-IP|
DtDNS|gnudip}>]
                        [status = <{disabled|enabled}>]
                        [trace = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| name | The dynamic DNS client name. | REQUIRED |
| intf | The dynamic DNS client interface. | OPTIONAL |
| user | The username for dynamic DNS authentication. | OPTIONAL |
| password | The password for dynamic DNS authentication. | OPTIONAL |
| group | The dynamic DNS host group. | OPTIONAL |
| mx | The mail exchanger. | OPTIONAL |
| backmx | Set up the mail exchanger as a backup MX. | OPTIONAL |
| wildcard | Allow use of hostname wildcards. | OPTIONAL |
| offline | Set the host to offline mode. | OPTIONAL |
| service | The dynamic DNS service. | OPTIONAL |
| status | Enable/Disable the dynamic DNS client. | OPTIONAL |
| trace | Enable/Disable the verbose console logging for the dynamic DNS client. | OPTIONAL |

dyndns service list

List all dynamic DNS services

dyndns service modify

Modify specific dynamic DNS service settings

SYNTAX:

```
dyndns service modify      name = <{dyndns|statdns|custom|No-IP|DtDNS|
                           gnudip}>
                           [server = <string>]
                           [port = <{undefined|at-echo|at-nbp|at-rtmp|at-
                           zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
                           gopher|h323|httpproxy|ike|ils|imap2|imap3|
                           ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
                           ldap|login|netbios-dgm|netbios-ns|netbios-
                           ssn|netwall|netware-ip|new-rwho|nfsd|nicname|
                           nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
                           gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                           snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                           sunrpc|syslog|sysstat|talk|telnet|time|timed|
                           tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
                           http|whoami|xwindows} or number>]
                           [request = <string>]
                           [updateinterval = <number{0-2097120}>]
                           [retryinterval = <number{0-600}>]
                           [max_retry = <number{1-5}>]
```

where:

| | | |
|----------------|--|----------|
| name | The dynamic DNS service. | REQUIRED |
| server | The dynamic DNS server hostname. | OPTIONAL |
| port | The dynamic DNS server port. | OPTIONAL |
| request | The dynamic DNS request string. | OPTIONAL |
| updateinterval | Number of seconds before a dynamic update is sent to the dynamic DNS server (The value 0 means disabled). | OPTIONAL |
| retryinterval | Number of seconds between retries if communication with the dynamic DNS server fails (The value 0 means disabled). | OPTIONAL |
| max_retry | The maximum number of retries if communication with the dynamic DNS server fails. | OPTIONAL |

env Commands

| | | |
|------------------|---|--------------|
| <i>env flush</i> | <i>Remove all non-system environment variables.</i> | see page 394 |
| <i>env get</i> | <i>Gets an environment variable.</i> | see page 395 |
| <i>env list</i> | <i>List all environment variables.</i> | see page 396 |
| <i>env set</i> | <i>Sets an environment variable.</i> | see page 397 |
| <i>env unset</i> | <i>Deletes an environment variable.</i> | see page 398 |

env flush

Remove all non-system environment variables.

env get

Gets an environment variable.

SYNTAX:

```
env get var = <{_SW_FLAG|_ETHERNET|_COMPANY_NAME|
_COMPANY_URL|_PROD_NAME|_SSID_SERIAL_PREFIX|
_BOARD_SERIAL_NBR|_PROD_SERIAL_NBR|_FII|
_BUILD|_BOOTLOADER_VERSION|_BUILDVARIANT|
_OUI|_BUILD_PASSIVEBANK|_CUSTO VARIANT|
_PHYSLAYERTYPE|_BUILDNAME|_BUILD_FILENAME|
_BUILD_PASSIVEFILENAME|_PRL|_FIA|
_BOARD_NAME|_COMPANY_ID|_COPYRIGHT|
_TPVERSION|_PROD_ID|_PROD_FRIENDLY_NAME|
_VARIANT_ID|_VARIANT_FRIENDLY_NAME|_MACADDR|
_LMACADDR|_WL_VERSION_0|_WL_VERSION|
_BOARD_FAKE_SERIAL_NBR|_WL0_WEPKEY_SERIAL|
_WL0_WPAKEY_SERIAL|_WL0_SSID_SERIAL|
_WL0_SSID_PREFIX|_WL0_BASE52_SERIAL|
_WL0_MAC_POSTFIX|_WL0_PIN_SERIAL|
_WL0_UUID_E_SERIAL|_WL0_UUID_R_SERIAL|
_WL1_WEPKEY_SERIAL|_WL1_WPAKEY_SERIAL|
_WL1_SSID_SERIAL|_WL1_BASE52_SERIAL|
_WL1_PIN_SERIAL|_WL1_UUID_E_SERIAL|
_WL1_UUID_R_SERIAL|_WL2_WEPKEY_SERIAL|
_WL2_WPAKEY_SERIAL|_WL2_SSID_SERIAL|
_WL2_BASE52_SERIAL|_WL2_PIN_SERIAL|
_WL2_UUID_E_SERIAL|_WL2_UUID_R_SERIAL|
_WL3_WEPKEY_SERIAL|_WL3_WPAKEY_SERIAL|
_WL3_SSID_SERIAL|_WL3_BASE52_SERIAL|
_WL3_PIN_SERIAL|_WL3_UUID_E_SERIAL|
_WL3_UUID_R_SERIAL|_SSID_WL_MACADDR_POSTFIX|
_SSID_POSTFIX_LEGACY_OR_MAC|
_WL_MACADDR|_LWL_MACADDR|_VOICE_CAPABLE|
_VOIP_TYPE|_MODEMLABEL|_WIZ_AUTOPOPUP|
_SNTPPOLL_POST_SYNC|_SNTPPOLL_PRE_SYNC|
_ADSL_EOC_VERSION|EOC_MSG|CONF_REGION|
CONF_PROVIDER|CONF_DESCRIPTION|CONF_SERVICE|
CONF_DATE|HOST_SETUP|CONF_DATETIME|
CONF_TPVERSION|GENERIC_OUI|@CWMPUSER|
_WL0_SSID_PREFIX_CUSTOM}>
```

where:

| var | The name of the variable. | REQUIRED |
|-----|---------------------------|----------|
|-----|---------------------------|----------|

env list

List all environment variables.

env set

Sets an environment variable.

SYNTAX:

```
env set          var = <string>
                 value = <translated string>
```

where:

| | | |
|-------|---|----------|
| var | The name of the variable. | REQUIRED |
| value | A translated quoted string defining the variable value. | REQUIRED |

env unset

Deletes an environment variable.

SYNTAX:

```
env unset var = <{_SW_FLAG|_ETHERNET|_COMPANY_NAME|
_COMPANY_URL|_PROD_NAME|_SSID_SERIAL_PREFIX|
_BOARD_SERIAL_NBR|_PROD_SERIAL_NBR|_FII|
_BUILD|_BOOTLOADER_VERSION|_BUILDVARIANT|
_OUI|_BUILD_PASSIVEBANK|_CUSTOVARIANT|
_PHYSLAYERTYPE|_BUILDNAME|_BUILD_FILENAME|
_BUILD_PASSIVEFILENAME|_PRL|_FIA|
_BOARD_NAME|_COMPANY_ID|_COPYRIGHT|
_TPVERSION|_PROD_ID|_PROD_FRIENDLY_NAME|
_VARIANT_ID|_VARIANT_FRIENDLY_NAME|_MACADDR|
_LMACADDR|_WL_VERSION_0|_WL_VERSION|
_BOARD_FAKE_SERIAL_NBR|_WL0_WEPKEY_SERIAL|
_WL0_WPAKEY_SERIAL|_WL0_SSID_SERIAL|
_WL0_SSID_PREFIX|_WL0_BASE52_SERIAL|
_WL0_MAC_POSTFIX|_WL0_PIN_SERIAL|
_WL0_UUID_E_SERIAL|_WL0_UUID_R_SERIAL|
_WL1_WEPKEY_SERIAL|_WL1_WPAKEY_SERIAL|
_WL1_SSID_SERIAL|_WL1_BASE52_SERIAL|
_WL1_PIN_SERIAL|_WL1_UUID_E_SERIAL|
_WL1_UUID_R_SERIAL|_WL2_WEPKEY_SERIAL|
_WL2_WPAKEY_SERIAL|_WL2_SSID_SERIAL|
_WL2_BASE52_SERIAL|_WL2_PIN_SERIAL|
_WL2_UUID_E_SERIAL|_WL2_UUID_R_SERIAL|
_WL3_WEPKEY_SERIAL|_WL3_WPAKEY_SERIAL|
_WL3_SSID_SERIAL|_WL3_BASE52_SERIAL|
_WL3_PIN_SERIAL|_WL3_UUID_E_SERIAL|
_WL3_UUID_R_SERIAL|_SSID_WL_MACADDR_POSTFIX|
_SSID_POSTFIX_LEGACY_OR_MAC|
_WL_MACADDR|_LWL_MACADDR|_VOICE_CAPABLE|
_VOIP_TYPE|_MODEMLABEL|_WIZ_AUTOPOPUP|
_SNTPPOLL_POST_SYNC|_SNTPPOLL_PRE_SYNC|
_ADSL_EOC_VERSION|EOC_MSG|CONF_REGION|
CONF_PROVIDER|CONF_DESCRIPTION|CONF_SERVICE|
CONF_DATE|HOST_SETUP|CONF_DATETIME|
CONF_TPVERSION|GENERIC_OUI|@CWMPUSER|
_WL0_SSID_PREFIX_CUSTOM}>
```

where:

| var | The name of the variable. | REQUIRED |
|-----|---------------------------|----------|
|-----|---------------------------|----------|

eth Commands

| | | |
|-------------------------------------|---|--------------|
| <i>eth bridge add</i> | <i>Add a new bridge instance.</i> | see page 404 |
| <i>eth bridge clear</i> | <i>Clear bridge statistics.</i> | see page 405 |
| <i>eth bridge config</i> | <i>Modify/Display the bridge configuration settings.</i> | see page 406 |
| <i>eth bridge delete</i> | <i>Delete a bridge instance.</i> | see page 407 |
| <i>eth bridge dynvlan actlist</i> | <i>Display the active MAC entries for the dynamic VLAN membership.</i> | see page 408 |
| <i>eth bridge dynvlan add</i> | <i>Add a dynamic VLAN membership entry.</i> | see page 409 |
| <i>eth bridge dynvlan config</i> | <i>Modify the dynamic VLAN membership configuration.</i> | see page 410 |
| <i>eth bridge dynvlan delete</i> | <i>Delete a dynamic VLAN membership entry.</i> | see page 411 |
| <i>eth bridge dynvlan flush</i> | <i>Flush all dynamic VLAN membership entries.</i> | see page 412 |
| <i>eth bridge dynvlan list</i> | <i>Display a dynamic VLAN membership entry.</i> | see page 413 |
| <i>eth bridge filter add</i> | <i>Add a filter.</i> | see page 414 |
| <i>eth bridge filter attach</i> | <i>Enable a filter.</i> | see page 415 |
| <i>eth bridge filter config</i> | <i>Change filter configuration</i> | see page 416 |
| <i>eth bridge filter delete</i> | <i>Delete a filter.</i> | see page 417 |
| <i>eth bridge filter detach</i> | <i>Disable a filter.</i> | see page 418 |
| <i>eth bridge filter forwarding</i> | <i>Action: set forwarding configuration.</i> | see page 419 |
| <i>eth bridge filter fwdintfadd</i> | <i>Add Forwarding interface: filter action.</i> | see page 420 |
| <i>eth bridge filter fwdintfdel</i> | <i>Remove Forwarding interface: filter action.</i> | see page 421 |
| <i>eth bridge filter ifadd</i> | <i>Connect an interface with a filter.</i> | see page 422 |
| <i>eth bridge filter ifdel</i> | <i>Remove an interface from a filter.</i> | see page 423 |
| <i>eth bridge filter list</i> | <i>Display the bridge filters.</i> | see page 424 |
| <i>eth bridge flush</i> | <i>Flush all bridge instances with their interfaces and properties.</i> | see page 425 |
| <i>eth bridge ifadd</i> | <i>Add a new bridge interface.</i> | see page 426 |
| <i>eth bridge ifattach</i> | <i>Attach a bridge interface.</i> | see page 427 |
| <i>eth bridge ifconfig</i> | <i>Modify a bridge interface configuration.</i> | see page 428 |
| <i>eth bridge ifdelete</i> | <i>Delete a bridge interface.</i> | see page 430 |

| | | |
|---|--|--------------|
| <i>eth bridge ifdetach</i> | <i>Detach a bridge interface.</i> | see page 431 |
| <i>eth bridge ifflush</i> | <i>flush the bridge interfaces: detach/delete all interfaces.</i> | see page 432 |
| <i>eth bridge iflist</i> | <i>Display the current bridge interfaces.</i> | see page 433 |
| <i>eth bridge igmpsnooping clear</i> | <i>Clear snooping statistics.</i> | see page 434 |
| <i>eth bridge igmpsnooping config</i> | <i>Configure bridge instance IGMP Snooping flags.</i> | see page 435 |
| <i>eth bridge igmpsnooping ifconfig</i> | <i>Configure bridge interface IGMP snooping flags and mode.</i> | see page 436 |
| <i>eth bridge igmpsnooping iflist</i> | <i>Display bridge interface IGMP status.</i> | see page 437 |
| <i>eth bridge igmpsnooping list</i> | <i>Display bridge instance snooped groups.</i> | see page 438 |
| <i>eth bridge ippriomap</i> | <i>Modify the IP priority mappings for a bridge.</i> | see page 439 |
| <i>eth bridge ippriomapreset</i> | <i>Reset the IP priority mappings to its defaults.</i> | see page 440 |
| <i>eth bridge list</i> | <i>Display the current bridge instances.</i> | see page 441 |
| <i>eth bridge macadd</i> | <i>Add a static MAC address to a bridge interface.</i> | see page 442 |
| <i>eth bridge macdelete</i> | <i>Remove a MAC address from the database.</i> | see page 443 |
| <i>eth bridge maclist</i> | <i>Display the MAC address database.</i> | see page 444 |
| <i>eth bridge mldsnooping clear</i> | <i>Clear snooping statistics.</i> | see page 445 |
| <i>eth bridge mldsnooping config</i> | <i>Configure bridge instance MLD Snooping flags.</i> | see page 446 |
| <i>eth bridge mldsnooping ifconfig</i> | <i>Configure bridge interface MLD snooping flags and mode.</i> | see page 447 |
| <i>eth bridge mldsnooping iflist</i> | <i>Display bridge interface MLD status.</i> | see page 448 |
| <i>eth bridge mldsnooping list</i> | <i>Display bridge instance snooped groups.</i> | see page 449 |
| <i>eth bridge rule add</i> | <i>Add a new constraint to the VLAN learning system.</i> | see page 450 |
| <i>eth bridge rule delete</i> | <i>Delete a constraint from the VLAN learning system.</i> | see page 451 |
| <i>eth bridge rule flush</i> | <i>Flush all constraints from the VLAN learning system.</i> | see page 452 |
| <i>eth bridge rule list</i> | <i>Display all constraints from the VLAN learning system.</i> | see page 453 |
| <i>eth bridge select</i> | <i>Select the default bridge for configuring interfaces from (if not setting</i> | see page 454 |
| <i>eth bridge unknownvlan ifadd</i> | <i>Add bridge interface to unknown 'VLAN'.</i> | see page 455 |
| <i>eth bridge unknownvlan ifconfig</i> | <i>Modify bridge interface from unknown 'VLAN'.</i> | see page 456 |

| | | |
|--|---|--------------|
| <i>eth bridge unknownvlan ifdelete</i> | <i>Delete bridge interface from unknown 'VLAN'.</i> | see page 457 |
| <i>eth bridge unknownvlan iflist</i> | <i>Display all interfaces of the unknown 'VLAN'.</i> | see page 458 |
| <i>eth bridge vlan ifadd</i> | <i>Add bridge interface to virtual LAN.</i> | see page 459 |
| <i>eth bridge vlan ifconfig</i> | <i>Modify bridge interface from virtual LAN.</i> | see page 460 |
| <i>eth bridge vlan ifdelete</i> | <i>Delete bridge interface from virtual LAN.</i> | see page 461 |
| <i>eth bridge vlan iflist</i> | <i>Display all virtual LAN's.</i> | see page 462 |
| <i>eth bridge vlan ifstats</i> | <i>Display all virtual LAN's port statistics.</i> | see page 463 |
| <i>eth bridge xtratag add</i> | <i>Add an extra tag mapping entry.</i> | see page 464 |
| <i>eth bridge xtratag config</i> | <i>Configure an extra tag mapping entry.</i> | see page 465 |
| <i>eth bridge xtratag delete</i> | <i>Delete an extra tag mapping entry.</i> | see page 466 |
| <i>eth bridge xtratag flush</i> | <i>Flush all extra tag mapping entries.</i> | see page 467 |
| <i>eth bridge xtratag list</i> | <i>Display all extra tag mapping entries.</i> | see page 468 |
| <i>eth device debug stats</i> | <i>Display ETH interface statistics.</i> | see page 469 |
| <i>eth device ifautoneg</i> | <i>Adapt/list an Ethernet port's autonegotiation parameters (if autonegotiation).</i> | see page 470 |
| <i>eth device ifconfig</i> | <i>Configure an Ethernet port's type setting (disable/enable autonegotiation).</i> | see page 471 |
| <i>eth device iflist</i> | <i>Show all Ethernet ports' operational status.</i> | see page 472 |
| <i>eth device ifrestart</i> | <i>Reset an Ethernet port and restart autonegotiation.</i> | see page 473 |
| <i>eth filter operand add</i> | <i>Add a filter operand.</i> | see page 474 |
| <i>eth filter operand config</i> | <i>Set the operand to a certain type (will reset content first).</i> | see page 475 |
| <i>eth filter operand delete</i> | <i>Delete a filter operand.</i> | see page 477 |
| <i>eth filter operand flush</i> | <i>Remove all filter operands (this will only delete the ones not in use: flush).</i> | see page 478 |
| <i>eth filter operand frameclassadd</i> | <i>Add another frameclass in the set.</i> | see page 479 |
| <i>eth filter operand frameclassdelete</i> | <i>Delete a frameclass from the set.</i> | see page 480 |
| <i>eth filter operand ipprotoadd</i> | <i>Add another ip protocol in the set.</i> | see page 481 |
| <i>eth filter operand ipprotodelete</i> | <i>Delete a ip protocol from the set.</i> | see page 482 |
| <i>eth filter operand list</i> | <i>Display the filter operands.</i> | see page 483 |
| <i>eth filter operand priorityadd</i> | <i>Add another priority in the set.</i> | see page 484 |

| | | |
|--|---|--------------|
| <i>eth filter operand prioritydelete</i> | <i>Delete a ip priority from the set.</i> | see page 485 |
| <i>eth filter operand reset</i> | <i>Reset an operand to its default initial state (removes all content, set to</i> | see page 486 |
| <i>eth filter operand vidadd</i> | <i>Add another VID in the set.</i> | see page 487 |
| <i>eth filter operand viddelete</i> | <i>Delete a VID from the set.</i> | see page 488 |
| <i>eth filter template add</i> | <i>Add a filter.</i> | see page 489 |
| <i>eth filter template config</i> | <i>Config a filter.</i> | see page 490 |
| <i>eth filter template delete</i> | <i>Delete a filter.</i> | see page 491 |
| <i>eth filter template flush</i> | <i>Remove all filters.</i> | see page 492 |
| <i>eth filter template list</i> | <i>Display the filters.</i> | see page 493 |
| <i>eth filter template ruleadd</i> | <i>Connect an operand rule with a filter.</i> | see page 494 |
| <i>eth filter template ruledel</i> | <i>Remove an operand rule from a filter.</i> | see page 495 |
| <i>eth filter template rulemodify</i> | <i>Modify an operand rule from a filter.</i> | see page 496 |
| <i>eth filter template setpriority</i> | <i>Action: enable/disable priority derivation</i> | see page 497 |
| <i>eth filter template setvid</i> | <i>Action: enable/disable VID derivation</i> | see page 498 |
| <i>eth flush</i> | <i>Flush all ETH interfaces.</i> | see page 499 |
| <i>eth ifadd</i> | <i>Create a new ETH interface.</i> | see page 500 |
| <i>eth ifattach</i> | <i>Attach an ETH interface.</i> | see page 501 |
| <i>eth ifconfig</i> | <i>Modify an ETH interface.</i> | see page 502 |
| <i>eth ifdelete</i> | <i>Delete an ETH interface.</i> | see page 503 |
| <i>eth ifdetach</i> | <i>Detach an ETH interface.</i> | see page 504 |
| <i>eth iflist</i> | <i>Display the ETH interfaces.</i> | see page 505 |
| <i>eth switch group delete</i> | <i>Delete a specified port from a specified group.</i> | see page 506 |
| <i>eth switch group flush</i> | <i>To set all ports to the default settings (all ports in group 0).</i> | see page 507 |
| <i>eth switch group list</i> | <i>List all configured groups.</i> | see page 508 |
| <i>eth switch group move</i> | <i>Move a specified port to a specified group.</i> | see page 509 |
| <i>eth switch info</i> | <i>Display switch capabilities</i> | see page 510 |
| <i>eth switch mirror capture</i> | <i>Define the specified port to be the Mirror Capture Port.</i> | see page 511 |
| <i>eth switch mirror egress</i> | <i>Enable or disable the specified port to be a Transmitted Port Mirroring.</i> | see page 512 |

| | | |
|-----------------------------------|--|--------------|
| <i>eth switch mirror ingress</i> | <i>Enable or disable the specified port to be a Received Port Mirroring.</i> | see page 513 |
| <i>eth switch qos config</i> | <i>Configure common qos parameters.</i> | see page 514 |
| <i>eth switch qos ifconfig</i> | <i>Configure per port qos parameters.</i> | see page 515 |
| <i>eth switch qos list</i> | <i>Display qos configuration.</i> | see page 516 |
| <i>eth switch qos weights</i> | <i>Configure the queue weights.</i> | see page 517 |
| <i>eth switch shaper config</i> | <i>Configure common ingress shaper parameters.</i> | see page 518 |
| <i>eth switch shaper ifconfig</i> | <i>Configure per port shaper parameters.</i> | see page 519 |
| <i>eth switch shaper iflist</i> | <i>Display shaper configuration per port.</i> | see page 520 |
| <i>eth switch share add</i> | <i>Add a port to be shared.</i> | see page 521 |
| <i>eth switch share delete</i> | <i>Delete a shared port.</i> | see page 522 |
| <i>eth switch share list</i> | <i>Display shared ports.</i> | see page 523 |
| <i>eth switch storm ifconfig</i> | <i>Configure per port storm control parameters.</i> | see page 524 |
| <i>eth switch storm iflist</i> | <i>Display storm control configuration per port.</i> | see page 525 |
| <i>eth vlan add</i> | <i>Add a new virtual LAN.</i> | see page 526 |
| <i>eth vlan delete</i> | <i>Delete a virtual LAN.</i> | see page 527 |
| <i>eth vlan flush</i> | <i>Flush all virtual LAN's.</i> | see page 528 |
| <i>eth vlan list</i> | <i>Display all virtual LAN's.</i> | see page 529 |
| <i>eth vlan priomap config</i> | <i>Change a VLAN/DE to/from internal priority mapping.</i> | see page 530 |
| <i>eth vlan priomap list</i> | <i>Display the VLAN/DE to/from internal priority mappings.</i> | see page 531 |

eth bridge add

Add a new bridge instance.

SYNTAX:

```
eth bridge add                brname = <string>
```

where:

| | | |
|--------|--------------------------------------|----------|
| brname | The name of the new bridge instance. | REQUIRED |
|--------|--------------------------------------|----------|

eth bridge clear

Clear bridge statistics.

SYNTAX:

```
eth bridge clear [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge config

Modify/Display the bridge configuration settings.

SYNTAX:

```
eth bridge config          [brname = <{bridge}>]
                           [age = <number{10-1000000}>]
                           [mtu = <number{1500-1982}>]
                           [filter = <{none|no_WAN_broadcast}>]
                           [vlan = <{disabled|enabled}>]
```

where:

| | | |
|--------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| age | The lifetime (in seconds) of a dynamically learned MAC address. | OPTIONAL |
| mtu | The MTU for this bridge. | OPTIONAL |
| filter | The bridge filter to be applied for all WAN bridge interfaces. | OPTIONAL |
| vlan | Enable/disable the use of the VLAN id of the received VLAN packets. | OPTIONAL |

eth bridge delete

Delete a bridge instance.

SYNTAX:

```
eth bridge delete          brname = <{bridge}>
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | REQUIRED |
|--------|--------------------------------|----------|

eth bridge dynvlan actlist

Display the active MAC entries for the dynamic VLAN membership.

eth bridge dynvlan add

Add a dynamic VLAN membership entry.

SYNTAX:

```
eth bridge dynvlan add      [id = <number{0-100000}>]
                             hwaddr = <masked-hardware-address>
                             vlan = <{default}>
                             [prio = <number{0-7}>]
                             [mode = <{none|vid|prio|both}>]
```

where:

| | | |
|--------|---|----------|
| id | The id of the dynamic VLAN membership entry. | OPTIONAL |
| hwaddr | The (masked) ethernet MAC address of the dynamic VLAN membership entry. | REQUIRED |
| vlan | The VLAN for the dynamic VLAN membership entry. | REQUIRED |
| prio | The new port priority to be set. | OPTIONAL |
| mode | The flexiport mode of operation. | OPTIONAL |

eth bridge dynvlan config

Modify the dynamic VLAN membership configuration.

SYNTAX:

```
eth bridge dynvlan config [timeout = <number{0-100000}>]
```

where:

| | | |
|---------|---|----------|
| timeout | Timeout in seconds for the dynamic entries. | OPTIONAL |
|---------|---|----------|

eth bridge dynvlan delete

Delete a dynamic VLAN membership entry.

SYNTAX:

```
eth bridge dynvlan delete      id = <number{0-100000}>
```

where:

| | |
|----|----------|
| id | REQUIRED |
|----|----------|

eth bridge dynvlan flush

Flush all dynamic VLAN membership entries.

eth bridge dynvlan list

Display a dynamic VLAN membership entry.

eth bridge filter add

Add a filter.

SYNTAX:

```
eth bridge filter add      brname = <{bridge}>
                           name = <string>
                           [filter = <{}>]
```

where:

| | | |
|--------|-------------------------|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter. | REQUIRED |
| filter | Ethernet filter to used | OPTIONAL |

eth bridge filter attach

Enable a filter.

SYNTAX:

```
eth bridge filter attach      brname = <{bridge}>
                              name = <{ }>
```

where:

| | | |
|--------|--------------------------------------|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |

eth bridge filter config

Change filter configuration

SYNTAX:

```
eth bridge filter config      brname = <{bridge}>
                               name = <{ }>
                               [filter = <{ }>]
```

where:

| | | |
|--------|--------------------------------------|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |
| filter | Ethernet filter to used | OPTIONAL |

eth bridge filter delete

Delete a filter.

SYNTAX:

```
eth bridge filter delete      brname = <{bridge}>
                               name = <{ }>
```

where:

| | | |
|--------|--------------------------------------|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |

eth bridge filter detach

Disable a filter.

SYNTAX:

```
eth bridge filter detach      brname = <{bridge}>
                               name = <{}>
```

where:

| | | |
|--------|--------------------------------------|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |

eth bridge filter forwarding

Action: set forwarding configuration.

SYNTAX:

```
eth bridge filter forwarding    brname = <{bridge}>
                               name = <{ }>
                               mode = <{ToFwdIntfsOnly|AlsoToFwdIntfs|
                                       NotToFwdIntfs|Drop}>
```

where:

| | | |
|--------|--------------------------------------|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |
| mode | The forwarding type to set. | REQUIRED |

eth bridge filter fwdintfadd

Add Forwarding interface: filter action.

SYNTAX:

```
eth bridge filter fwdintfadd    brname = <{bridge}>
                                name = <{ }>
                                intf = <{OBC|ethport1|ethport2|ethport3|
                                        ethport4|WLAN|virt}>
```

where:

| | | |
|--------|--|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |
| intf | The name of the bridge interface to add. | REQUIRED |

eth bridge filter fwdintfdel

Remove Forwarding interface: filter action.

SYNTAX:

```
eth bridge filter fwdintfdel    brname = <{bridge}>
                                name = <{ }>
                                intf = <{OBC|ethport1|ethport2|ethport3|
                                        ethport4|WLAN|virt}>
```

where:

| | | |
|--------|---|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |
| intf | The name of the bridge interface to remove. | REQUIRED |

eth bridge filter ifadd

Connect an interface with a filter.

SYNTAX:

```
eth bridge filter ifadd      brname = <{bridge}>
                             name = <{ }>
                             intf = <{OBC|ethport1|ethport2|ethport3|
                                     ethport4|WLAN|virt}>
```

where:

| | | |
|--------|--|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |
| intf | The name of the bridge interface to add. | REQUIRED |

eth bridge filter ifdel

Remove an interface from a filter.

SYNTAX:

```
eth bridge filter ifdel      brname = <{bridge}>
                             name = <{ }>
                             intf = <{OBC|ethport1|ethport2|ethport3|
                                     ethport4|WLAN|virt}>
```

where:

| | | |
|--------|---|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of the filter to configure. | REQUIRED |
| intf | The name of the bridge interface to remove. | REQUIRED |

eth bridge filter list

Display the bridge filters.

SYNTAX:

```
eth bridge filter list      brname = <{bridge}>
                             [name = <{ }>]
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|------------------------|----------|
| brname | The name of an bridge. | REQUIRED |
| name | The name of an filter. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

eth bridge flush

Flush all bridge instances with their interfaces and properties.

SYNTAX:

```
eth bridge flush [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge ifadd

Add a new bridge interface.

SYNTAX:

```
eth bridge ifadd          [brname = <{bridge}>]  
                          intf = <string>
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The new bridge interface name. | REQUIRED |

eth bridge ifattach

Attach a bridge interface.

SYNTAX:

```
eth bridge ifattach          [brname = <{bridge}>]  
                             intf = <{}>
```

where:

| | | |
|--------|-----------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | REQUIRED |

eth bridge ifconfig

Modify a bridge interface configuration.

SYNTAX:

```
eth bridge ifconfig [brname = <{bridge}>]
                    [intf = <{OBC|ethport1|ethport2|ethport3|
                    ethport4|WLAN|virt}>]
                    [dest = <{}>]
                    [portstate = <{disabled|learning|forwarding}>]
                    [retry = <number{0-65535}>]
                    [priotag = <{disabled|enabled}>]
                    [vlan = <{default}>]
                    [prioconfig = <{disabled|overwrite|increase}>]
                    [ipprec = <{disabled|precedence|dscp}>]
                    [priority = <number{0-7}>]
                    [regenprio = <string>]
                    [ingressfiltering = <{disabled|enabled}>]
                    [acceptvlanonly = <{disabled|enabled}>]
                    [mcastfilter = <{disabled|enabled}>]
                    [dynvlan = <{disabled|enabled|switched}>]
                    [wan = <{disabled|enabled}>]
                    [igmpsnooping = <{disabled|enabled}>]
                    [mldsnooping = <{disabled|enabled}>]
                    [priotransparent = <{disabled|enabled}>]
                    [bpdufiltering = <{disabled|enabled}>]
                    [xtratagging = <{none|c-vlan|s-vlan}>]
```

where:

| | | |
|------------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface to configure. | REQUIRED |
| dest | The destination for this interface. Typically an ATM or a physical interface name. | OPTIONAL |
| portstate | The bridge portstate for this interface. | OPTIONAL |
| retry | The number of WAN connection setup retries before giving up. | OPTIONAL |
| priotag | Enable/Disable priority tagging. | OPTIONAL |
| vlan | The default VLAN. | OPTIONAL |
| prioconfig | The priority configuration for this interface. | OPTIONAL |
| ipprec | The IP precedence for this interface. | OPTIONAL |
| priority | The default priority for untagged ingress packets. | OPTIONAL |
| regenprio | The priority regeneration table for tagged ingress packets. | OPTIONAL |

| | | |
|------------------|--|----------|
| ingressfiltering | Enable/disable discard of tagged ingress packets if the interface is not part of the VLAN. | OPTIONAL |
| acceptvlanonly | Enable/disable receipt of tagged ingress packets. | OPTIONAL |
| mcastfilter | Enable/disable discard of multicast packets for this interface. | OPTIONAL |
| dynvlan | Change dynamic VLAN membership checking mechanism for this interface. | OPTIONAL |
| wan | Enable/disable WAN for this interface. | OPTIONAL |
| igmpsnooping | Enable/disable IGMP snooping for this interface. | OPTIONAL |
| mldsnooping | Enable/disable MLD snooping for this interface. | OPTIONAL |
| priotransparent | Enable/disable priority preservation for this interface. | OPTIONAL |
| bpdufiltering | Enable/disable BPDU filtering for this interface. | OPTIONAL |
| xtratagging | The 'extra tagging mode' for this interface (none, c-vlan or s-vlan). | OPTIONAL |

eth bridge ifdelete

Delete a bridge interface.

SYNTAX:

```
eth bridge ifdelete          [brname = <{bridge}>]  
                             intf = <{ethport1|ethport2|ethport3|ethport4|  
                             WLAN|virt}>
```

where:

| | | |
|--------|-----------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | REQUIRED |

eth bridge ifdetach

Detach a bridge interface.

SYNTAX:

```
eth bridge ifdetach          [brname = <{bridge}>]  
                             intf = <{ethport1|ethport2|ethport3|ethport4|  
                             WLAN|virt}>
```

where:

| | | |
|--------|-----------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | REQUIRED |

eth bridge ifflush

flush the bridge interfaces: detach/delete all interfaces.

SYNTAX:

```
eth bridge ifflush [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge iflist

Display the current bridge interfaces.

SYNTAX:

```
eth bridge iflist [brname = <{bridge}>]
                  [intf = <{OBC|ethport1|ethport2|ethport3|
ethport4|WLAN|virt}>]
```

where:

| | | |
|--------|---------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of a bridge interface. | OPTIONAL |

eth bridge igmpsnooping clear

Clear snooping statistics.

SYNTAX:

```
eth bridge igmpsnooping clear [brname = <{bridge}>]
                               [intf = <{OBC|ethport1|ethport2|ethport3|
                               ethport4|WLAN|virt}>]
```

where:

| | | |
|--------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The bridge interface currently to be cleared. | OPTIONAL |

eth bridge igmpsnooping config

Configure bridge instance IGMP Snooping flags.

SYNTAX:

```
eth bridge igmpsnooping config [brname = <{bridge}>]
                                [state = <{disabled|enabled}>]
                                [floodrp = <{disabled|enabled}>]
                                [floodmcast = <{disabled|enabled}>]
                                [queryto = <number{0-86400}>]
```

where:

| | | |
|------------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| state | Enable/Disable the IGMP Snooping. | OPTIONAL |
| floodrp | Enable/Disable flooding reports to all ports. | OPTIONAL |
| floodmcast | Enable/Disable flooding unregistered multicasts. | OPTIONAL |
| queryto | IGMP Snooping Query Interval. | OPTIONAL |

eth bridge igmpsnooping ifconfig

Configure bridge interface IGMP snooping flags and mode.

SYNTAX:

```
eth bridge igmpsnooping      [brname = <{bridge}>]
ifconfig                    intf = <{OBC|ethport1|ethport2|ethport3|
                             ethport4|WLAN|virt}>
                             [portmode = <{Host|Router|Auto|None}>]
                             [fastleave = <{disabled|enabled}>]
                             [exptrack = <{disabled|enabled}>]
                             [mrdp = <{disabled|enabled}>]
                             [rgmp = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| brname | The bridge instance currently to be configured. | OPTIONAL |
| intf | The bridge interface currently to be configured. | REQUIRED |
| portmode | Mode of the bridge port. | OPTIONAL |
| fastleave | Enable/Disable Fast Immediate Leave. | OPTIONAL |
| exptrack | Enable/Disable Explicit Host Tracking. | OPTIONAL |
| mrdp | Enable/Disable MRDP support. | OPTIONAL |
| rgmp | Enable/Disable RGMP support. | OPTIONAL |

eth bridge igmpsnooping iflist

Display bridge interface IGMP status.

SYNTAX:

```
eth bridge igmpsnooping iflist [brname = <{bridge}>]
                                [intf = <{OBC|ethport1|ethport2|ethport3|
                                ethport4|WLAN|virt}>]
```

where:

| | | |
|--------|-----------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | OPTIONAL |

eth bridge igmpsnooping list

Display bridge instance snooped groups.

SYNTAX:

```
eth bridge igmpsnooping list [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge ipriomap

Modify the IP priority mappings for a bridge.

SYNTAX:

```
eth bridge ipriomap      [brname = <{bridge}>]
                        type = <{tos|dscp}>
                        tostable = <{Default|MinimizeDelay|
MaximizeThroughput|MaximizeReliability|
MinimizeCost}>
                        dscpidx = <{dscp_0_7|dscp_8_15|dscp_16_23|
dscp_24_31|dscp_32_39|dscp_40_47|dscp_48_55|
dscp_56_63}>
                        precedencemap = <string>
```

where:

| | | |
|---------------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| type | For which IP priority type to adapt the precedencemap. | REQUIRED |
| tostable | TOS table type to edit. | REQUIRED |
| dscpidx | Index in the DSCP table to edit. | REQUIRED |
| precedencemap | The IP priority precedence mapping values. | REQUIRED |

eth bridge ipriomapreset

Reset the IP priority mappings to its defaults.

SYNTAX:

```
eth bridge ipriomapreset      [brname = <{bridge}>]  
                               type = <{tos|dscp}>
```

where:

| | | |
|--------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| type | For which IP priority type to reset the precedencemap. | REQUIRED |

eth bridge list

Display the current bridge instances.

SYNTAX:

```
eth bridge list [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge macadd

Add a static MAC address to a bridge interface.

SYNTAX:

```
eth bridge macadd [brname = <{bridge}>]
                  intf = <{OBC|ethport1|ethport2|ethport3|
                  ethport4|WLAN|virt}>
                  hwaddr = <hardware-address>
                  [vlan = <{default}>]
```

where:

| | | |
|--------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | REQUIRED |
| hwaddr | The ethernet MAC address of the new entry. | REQUIRED |
| vlan | The VLAN. | OPTIONAL |

eth bridge macdelete

Remove a MAC address from the database.

SYNTAX:

```
eth bridge macdelete      [brname = <{bridge}>]  
                          hwaddr = <hardware-address>  
                          [vlan = <{default}>]
```

where:

| | | |
|--------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| hwaddr | The ethernet MAC address of the entry. | REQUIRED |
| vlan | The VLAN. | OPTIONAL |

eth bridge maclist

Display the MAC address database.

SYNTAX:

```
eth bridge maclist [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge mldsnooping clear

Clear snooping statistics.

SYNTAX:

```
eth bridge mldsnooping clear [brname = <{bridge}>]
                             [intf = <{OBC|ethport1|ethport2|ethport3|
                             ethport4|WLAN|virt}>]
```

where:

| | | |
|--------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The bridge interface currently to be cleared. | OPTIONAL |

eth bridge mldsnooping config

Configure bridge instance MLD Snooping flags.

SYNTAX:

```
eth bridge mldsnooping config [brname = <{bridge}>]
                               [state = <{disabled|enabled}>]
                               [floodrp = <{disabled|enabled}>]
                               [floodmcast = <{disabled|enabled}>]
                               [qi = <number{0-86400}>]
```

where:

| | | |
|------------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| state | Enable/Disable the MLD Snooping. | OPTIONAL |
| floodrp | Enable/Disable flooding reports to all ports. | OPTIONAL |
| floodmcast | Enable/Disable flooding unregistered multicasts. | OPTIONAL |
| qi | MLD Snooping Query Interval. | OPTIONAL |

eth bridge mldsnooping ifconfig

Configure bridge interface MLD snooping flags and mode.

SYNTAX:

```
eth bridge mldsnooping      brname = <{bridge}>
ifconfig                    intf = <{OBC|ethport1|ethport2|ethport3|
                             ethport4|WLAN|virt}>
                             [portmode = <{Host|Router|Auto|None}>]
                             [fastdone = <{disabled|enabled}>]
                             [exptrack = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| brname | The bridge instance currently to be configured. | REQUIRED |
| intf | The bridge interface currently to be configured. | REQUIRED |
| portmode | Mode of the bridge port. | OPTIONAL |
| fastdone | Enable/Disable Fast Immediate Leave. | OPTIONAL |
| exptrack | Enable/Disable Explicit Host Tracking. | OPTIONAL |

eth bridge mldsnooping iflist

Display bridge interface MLD status.

SYNTAX:

```
eth bridge mldsnooping iflist [brname = <{bridge}>]
                                [intf = <{OBC|ethport1|ethport2|ethport3|
                                ethport4|WLAN|virt}>]
```

where:

| | | |
|--------|-----------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | OPTIONAL |

eth bridge mldsnooping list

Display bridge instance snooped groups.

SYNTAX:

```
eth bridge mldsnooping list [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge rule add

Add a new constraint to the VLAN learning system.

SYNTAX:

```
eth bridge rule add          [brname = <{bridge}>]
                             type = <{shared|independant}>
                             vlan = <{default}>
                             [vlan2 = <{default}>]
                             [isi = <number{0-32}>]
```

where:

| | | |
|--------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| type | Type of constraint. | REQUIRED |
| vlan | The VLAN where the constraint belongs to. | REQUIRED |
| vlan2 | The second VLAN for a shared constraint. | OPTIONAL |
| isi | The independent set id for an independent constraint. | OPTIONAL |

eth bridge rule delete

Delete a constraint from the VLAN learning system.

SYNTAX:

```
eth bridge rule delete      [brname = <{bridge}>]  
                             index = <number{0-32}>
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| index | Index of the constraint. | REQUIRED |

eth bridge rule flush

Flush all constraints from the VLAN learning system.

eth bridge rule list

Display all constraints from the VLAN learning system.

SYNTAX:

```
eth bridge rule list [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge select

Select the default bridge for configuring interfaces from (if not setting

SYNTAX:

```
eth bridge select          brname = <{bridge}>
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | REQUIRED |
|--------|--------------------------------|----------|

eth bridge unknownvlan ifadd

Add bridge interface to unknown 'VLAN'.

SYNTAX:

```
eth bridge unknownvlan ifadd [brname = <{bridge}>]
                              intf = <{OBC|ethport1|ethport2|ethport3|
                              ethport4|WLAN|virt}>
                              [untagged = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface to add to the unknown 'VLAN'. | REQUIRED |
| untagged | Enable/disable interface as untagged for this unknown 'VLAN'. | OPTIONAL |

eth bridge unknownvlan ifconfig

Modify bridge interface from unknown 'VLAN'.

SYNTAX:

```
eth bridge unknownvlan      [brname = <{bridge}>]
ifconfig                    intf = <{OBC|ethport1|ethport2|ethport3|
                             ethport4|WLAN|virt}>
                             [untagged = <{disabled|enabled}>]
```

where:

| | | |
|----------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The bridge interface from the unknown 'VLAN' to configure. | REQUIRED |
| untagged | Enable/disable interface as untagged for this unknown 'VLAN'. | OPTIONAL |

eth bridge unknownvlan ifdelete

Delete bridge interface from unknown 'VLAN'.

SYNTAX:

```
eth bridge unknownvlan      [brname = <{bridge}>]
ifdelete                    intf = <{OBC|ethport1|ethport2|ethport3|
                             ethport4|WLAN|virt}>
```

where:

| | | |
|--------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface to remove from the unknown 'VLAN'. | REQUIRED |

eth bridge unknownvlan iflist

Display all interfaces of the unknown 'VLAN'.

eth bridge vlan ifadd

Add bridge interface to virtual LAN.

SYNTAX:

```
eth bridge vlan ifadd      [brname = <{bridge}>]
                           name = <{default}>
                           intf = <{OBC|ethport1|ethport2|ethport3|
                           ethport4|WLAN|virt}>
                           [untagged = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| name | The VLAN name. | REQUIRED |
| intf | The name of the bridge interface to add to the VLAN. | REQUIRED |
| untagged | Enable/disable interface as untagged for this VLAN. | OPTIONAL |

eth bridge vlan ifconfig

Modify bridge interface from virtual LAN.

SYNTAX:

```
eth bridge vlan ifconfig      [brname = <{bridge}>]
                              name = <{default}>
                              intf = <{OBC|ethport1|ethport2|ethport3|
                              ethport4|WLAN|virt}>
                              untagged = <{disabled|enabled}>
```

where:

| | | |
|----------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| name | The VLAN name. | REQUIRED |
| intf | The bridge interface from the VLAN to configure. | REQUIRED |
| untagged | Enable/disable interface as untagged for this VLAN. | REQUIRED |

eth bridge vlan ifdelete

Delete bridge interface from virtual LAN.

SYNTAX:

```
eth bridge vlan ifdelete      [brname = <{bridge}>]
                               name = <{default}>
                               intf = <{OBC|ethport1|ethport2|ethport3|
                                     ethport4|WLAN|virt}>
```

where:

| | | |
|--------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| name | The VLAN name. | REQUIRED |
| intf | The name of the bridge interface to remove from the VLAN. | REQUIRED |

eth bridge vlan iflist

Display all virtual LAN's.

SYNTAX:

```
eth bridge vlan iflist [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge vlan ifstats

Display all virtual LAN's port statistics.

SYNTAX:

```
eth bridge vlan ifstats [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth bridge xtrntag add

Add an extra tag mapping entry.

SYNTAX:

```
eth bridge xtrntag add      [brname = <{bridge}>]
                           intf = <{OBC|ethport1|ethport2|ethport3|
                           ethport4|WLAN|virt}>
                           innervid = <{[1-4094]|all|}>
                           outervid = <{[1-4094]|notag|transparent|}>
```

where:

| | | |
|----------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | REQUIRED |
| innervid | The inner VLAN id [all,1-4094] (all = all inner vid will be translated to the outer vid). | REQUIRED |
| outervid | The outer VLAN id [notag,1-4094,transparent] (notag: outer not tagged, transparent: tagged as inner). | REQUIRED |

eth bridge xtratag config

Configure an extra tag mapping entry.

SYNTAX:

```
eth bridge xtratag config      [brname = <{bridge}>]
                               intf = <{OBC|ethport1|ethport2|ethport3|
                               ethport4|WLAN|virt}>
                               innervid = <{[1-4094]|all|}>
                               outervid = <{[1-4094]|notag|transparent|}>
```

where:

| | | |
|----------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | REQUIRED |
| innervid | The inner VLAN id [all,1-4094] (all = all inner vid will be translated to the outer vid). | REQUIRED |
| outervid | The outer VLAN id [notag,1-4094,transparent] (notag: outer not tagged, transparent: tagged as inner). | REQUIRED |

eth bridge xtratag delete

Delete an extra tag mapping entry.

SYNTAX:

```
eth bridge xtratag delete      [brname = <{bridge}>]
                               intf = <{OBC|ethport1|ethport2|ethport3|
                               ethport4|WLAN|virt}>
                               innervid = <{[1-4094]|all|}>
```

where:

| | | |
|----------|---|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| intf | The name of the bridge interface. | REQUIRED |
| innervid | The inner VLAN id [all,1-4094] (all = all inner vid will be translated to the outer vid). | REQUIRED |

eth bridge xtratag flush

Flush all extra tag mapping entries.

eth bridge xtratag list

Display all extra tag mapping entries.

eth device debug stats

Display ETH interface statistics.

SYNTAX:

```
eth device debug stats      [intf = <{ethif1|ethif2|ethif3|ethif4|ethif5|
                           wlif1|ethif6|}>]
                           [clear = <{disabled|enabled}>]
```

where:

| | | |
|-------|---------------------------------|----------|
| intf | The Ethernet port's name. | OPTIONAL |
| clear | Clear the statistics after read | OPTIONAL |

eth device ifautoneg

Adapt/list an Ethernet port's autonegotiation parameters (if autonegotiation

SYNTAX:

```
eth device ifautoneg          intf = <{ethif1|ethif2|ethif3|ethif4|ethif5|
                               wlif1|ethif6}>
                               [speed = <{auto|10Mb|100Mb|1Gb}>]
                               [duplex = <{auto|half|full}>]
                               [pause = <{none|asym|sym|both}>]
```

where:

| | | |
|--------|--|----------|
| intf | The Ethernet port's name to adapt or show info from. | REQUIRED |
| speed | The speed mode. | OPTIONAL |
| duplex | The duplex mode. | OPTIONAL |
| pause | The flow-control mode. | OPTIONAL |

eth device ifconfig

Configure an Ethernet port's type setting (disable/enable autonegotiation).

SYNTAX:

```
eth device ifconfig          intf = <{ethif1|ethif2|ethif3|ethif4|ethif5|
                             wlif1|ethif6}>
                             [state = <{enabled|disabled}>]
                             [type = <{auto|10BaseTHD|10BaseTFD|100BaseTHD|
                             100BaseTFD}>]
                             [mtu = <number{1518-2000}>]
```

where:

| | | |
|-------|---|----------|
| intf | The Ethernet port's name. | REQUIRED |
| state | The port's administrative state. | OPTIONAL |
| type | The port's type setting. If auto, then autonegotiation will be used, if something else, then autonegotiation will be disabled. Be careful with using this command: a wrong type setting make you loose the link. Use the autonegotian settings command instead: this is much more reliable! | OPTIONAL |
| mtu | The MTU for this Ethernet port. | OPTIONAL |

eth device iflist

Show all Ethernet ports' operational status.

eth device ifrestart

Reset an Ethernet port and restart autonegotiation.

SYNTAX:

```
eth device ifrestart          intf = <{ethif1|ethif2|ethif3|ethif4|ethif5|  
                             wlif1|ethif6|}>
```

where:

| | | |
|------|--|----------|
| intf | The Ethernet port's to be reset (restart autonegotiation). | REQUIRED |
|------|--|----------|

eth filter operand add

Add a filter operand.

SYNTAX:

```
eth filter operand add      operand = <string>
```

where:

| | | |
|---------|--------------------------------------|----------|
| operand | The name of the new operand operand. | REQUIRED |
|---------|--------------------------------------|----------|

eth filter operand config

Set the operand to a certain type (will reset content first).

SYNTAX:

```
eth filter operand config      operand = <{ }>
                               type = <{CheckDACLass|CheckFrameClass|
                               CheckVLANPriority|CheckVID|
                               CheckBridgeSourcePort}>
                               operator = <{Equal|Less|LessEqual|InSet}>
                               protocollevel = <{EthernetFrame|Protocol|
                               EthernetPayload|ULPHeader|ULPPayload}>
                               length = <number>
                               mask = <string>
                               value = <string>
                               daiclass = <{Unicast|Multicast|Broadcast}>
                               [frameclass = <{Eth2|SNAPEType|SNAP8021H|
                               SNAPOther|LLCNLPID|LLCOther}>]
                               [ipprotocol = <number{0-254}>]
                               action = <{Delete|Insert|Modify}>
                               offset = <number>
                               [priority = <number{0-7}>]
                               size = <number>
                               [vid = <number{1-4095}>]
                               protocol = <{IP|UpperLayer}>
                               srcintf = <{OBC|ethport1|ethport2|ethport3|
                               ethport4|WLAN|virt}>
```

where:

| | | |
|---------------|--|----------|
| operand | The name of an operand. | REQUIRED |
| type | The type to set. | REQUIRED |
| operator | The compare operator. | REQUIRED |
| protocollevel | The protocol level from where to start offset/size calculations. | REQUIRED |
| length | The length of the compare value/mask combination in bytes.. | REQUIRED |
| mask | The mask to be used on the value. | REQUIRED |
| value | The value. | REQUIRED |
| daiclass | The destination address class. | REQUIRED |
| frameclass | The Ethernet frame class to filter on. | OPTIONAL |
| ipprotocol | The IP protocol to filter on. | OPTIONAL |
| action | The action to undertake with matching filter.. | REQUIRED |

| | | |
|----------|---|----------|
| offset | At which offset from protocol level in bytes the Match/Modify action should start (in bytes). | REQUIRED |
| priority | The VLAN priority to filter on. | OPTIONAL |
| size | The size of the frame at this protocol level. | REQUIRED |
| vid | The VID to filter on. | OPTIONAL |
| protocol | The protocol level of the checksum. | REQUIRED |
| srcintf | The source bridge interface from where the packet ingressed the bridge. | REQUIRED |

eth filter operand delete

Delete a filter operand.

SYNTAX:

```
eth filter operand delete      operand = <{}>
```

where:

| | | |
|---------|------------------------------------|----------|
| operand | The name of the operand to delete. | REQUIRED |
|---------|------------------------------------|----------|

eth filter operand flush

Remove all filter operands (this will only delete the ones not in use: flush

eth filter operand frameclassadd

Add another frameclass in the set.

SYNTAX:

```
eth filter operand          operand = <{ }>
frameclassadd              frameclass = <{Eth2 | SNAPEType | SNAP8021H |
                             SNAPOther | LLCNLPID | LLCOther}>
```

where:

| | | |
|------------|-------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| frameclass | The frame class to add. | REQUIRED |

eth filter operand frameclassdelete

Delete a frameclass from the set.

SYNTAX:

```
eth filter operand          operand = <{ }>
frameclassdelete          frameclass = <{Eth2 | SNAPEType | SNAP8021H |
                           SNAPOther | LLCNLPID | LLCOther}>
```

where:

| | | |
|------------|---------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| frameclass | The frameclass to remove. | REQUIRED |

eth filter operand ipprotoadd

Add another ip protocol in the set.

SYNTAX:

```
eth filter operand ipprotoadd  operand = <{ }>
                                ipprotocol = <number{0-255}>
```

where:

| | | |
|------------|-------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| ipprotocol | The IP protocol to add. | REQUIRED |

eth filter operand ipprotodelete

Delete a ip protocol from the set.

SYNTAX:

```
eth filter operand      operand = <{}>
ipprotodelete          ipprotocol = <{}>
```

where:

| | | |
|------------|----------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| ipprotocol | The IP protocol to remove. | REQUIRED |

eth filter operand list

Display the filter operands.

SYNTAX:

```
eth filter operand list      [operand = <{>]  
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|---------|-------------------------|----------|
| operand | The name of an operand. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

eth filter operand priorityadd

Add another priority in the set.

SYNTAX:

```
eth filter operand priorityadd operand = <{}>
                                priority = <number{0-7}>
```

where:

| | | |
|----------|---------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| priority | The vlan priority to add. | REQUIRED |

eth filter operand prioritydelete

Delete a ip priority from the set.

SYNTAX:

```
eth filter operand          operand = <{}>
prioritydelete             priority = <{}>
```

where:

| | | |
|----------|------------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| priority | The vlan priority to remove. | REQUIRED |

eth filter operand reset

Reset an operand to its default initial state (removes all content, set to

SYNTAX:

```
eth filter operand reset      operand = <{}>
```

where:

| | | |
|---------|-------------------------|----------|
| operand | The name of an operand. | REQUIRED |
|---------|-------------------------|----------|

eth filter operand vidadd

Add another VID in the set.

SYNTAX:

```
eth filter operand vidadd      operand = <{ }>  
                               vid = <number{1-4095}>
```

where:

| | | |
|---------|-------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| vid | The VID to add. | REQUIRED |

eth filter operand viddelete

Delete a VID from the set.

SYNTAX:

```
eth filter operand viddelete    operand = <{}>
                                vid = <{}>
```

where:

| | | |
|---------|-------------------------|----------|
| operand | The name of an operand. | REQUIRED |
| vid | The VID to remove. | REQUIRED |

eth filter template add

Add a filter.

SYNTAX:

```
eth filter template add      filter = <string>
                             [location = <{Ingress|Egress|VID|Priority}>]
                             [level = <number{0-65535}>]
                             [tracing = <{disabled|enabled}>]
                             [mark = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| filter | The name of the filter. | REQUIRED |
| location | The filter location. | OPTIONAL |
| level | The filter level (lower level is processed first = priority) | OPTIONAL |
| tracing | Enable/disabled tracing of packets | OPTIONAL |
| mark | Enable/disabled marking of packets | OPTIONAL |

eth filter template config

Config a filter.

SYNTAX:

```
eth filter template config      filter = <{ }>
                                [location = <{Ingress|Egress|VID|Priority}>]
                                [level = <number{0-65535}>]
                                [tracing = <{disabled|enabled}>]
                                [mark = <{disabled|enabled}>]
```

where:

| | | |
|----------|--|----------|
| filter | The name of an filter. | REQUIRED |
| location | The filter location. | OPTIONAL |
| level | The filter level (lower level is processed first = priority) | OPTIONAL |
| tracing | Enable/disabled tracing of packets | OPTIONAL |
| mark | Enable/disabled marking of packets | OPTIONAL |

eth filter template delete

Delete a filter.

SYNTAX:

```
eth filter template delete      filter = <{}>
```

where:

| | | |
|--------|------------------------|----------|
| filter | The name of an filter. | REQUIRED |
|--------|------------------------|----------|

eth filter template flush

Remove all filters.

eth filter template list

Display the filters.

SYNTAX:

```
eth filter template list      [filter = <{ }>]
                              [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|------------------------|----------|
| filter | The name of an filter. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

eth filter template ruleadd

Connect an operand rule with a filter.

SYNTAX:

```
eth filter template ruleadd    filter = <{}>
                               operand = <{}>
                               [negate = <{disabled|enabled}>]
                               [order = <number{-100-100}>]
                               [operator = <{Ignore|AND|OR}>]
```

where:

| | | |
|----------|--|----------|
| filter | The name of an filter. | REQUIRED |
| operand | The name of the operand to connect with. | REQUIRED |
| negate | negate or not the operand outcome. | OPTIONAL |
| order | The operand order in thes filter (lower order is processed first = priority) | OPTIONAL |
| operator | Operand operator. | OPTIONAL |

eth filter template ruledel

Remove an operand rule from a filter.

SYNTAX:

```
eth filter template ruledel    filter = <{}>
                               ruleid = <{}>
```

where:

| | | |
|--------|------------------------------------|----------|
| filter | The name of an filter. | REQUIRED |
| ruleid | The name of the operand to remove. | REQUIRED |

eth filter template rulemodify

Modify an operand rule from a filter.

SYNTAX:

```
eth filter template rulemodify filter = <{}>
                                ruleid = <{}>
                                [operand = <{}>]
                                [negate = <{disabled|enabled}>]
                                [order = <number{-100-100}>]
                                [operator = <{Ignore|AND|OR}>]
```

where:

| | | |
|----------|--|----------|
| filter | The name of an filter. | REQUIRED |
| ruleid | The name of the operand to remove. | REQUIRED |
| operand | The name of the operand to connect with. | OPTIONAL |
| negate | negate or not the operand outcome. | OPTIONAL |
| order | The operand order in thes filter (lower order is processed first = priority) | OPTIONAL |
| operator | Operand operator. | OPTIONAL |

eth filter template setpriority

Action: enable/disable priority derivation

SYNTAX:

```
eth filter template      filter = <{ }>
setpriority              [state = <{disabled|enabled}>]
                        priority = <number{0-15}>
```

where:

| | | |
|----------|---|----------|
| filter | The name of an filter. | REQUIRED |
| state | Enable/disable priority derivation for this filters | OPTIONAL |
| priority | The priority to set in the derivation. | REQUIRED |

eth filter template setvid

Action: enable/disable VID derivation

SYNTAX:

```
eth filter template setvid      filter = <{ }>
                                [state = <{disabled|enabled}>]
                                vid = <number{1-4095}>
```

where:

| | | |
|--------|---|----------|
| filter | The name of an filter. | REQUIRED |
| state | Enable/disabled VID derivation for this filters | OPTIONAL |
| vid | The VID to set in the derivation. | REQUIRED |

eth flush

Flush all ETH interfaces.

eth ifadd

Create a new ETH interface.

SYNTAX:

```
eth ifadd                               intf = <string>
```

where:

| | | |
|------|-------------------------------------|----------|
| intf | The name for the new ETH interface. | REQUIRED |
|------|-------------------------------------|----------|

eth ifattach

Attach an ETH interface.

SYNTAX:

```
eth ifattach          intf = <{}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the ETH interface. | REQUIRED |
|------|--------------------------------|----------|

eth ifconfig

Modify an ETH interface.

SYNTAX:

```
eth ifconfig          intf = <{ethoa_8_35|eth_ge}>
                    [dest = <{bridge|ethoa_8_35|eth_ge}>]
                    [retry = <number{0-65535}>]
                    [wan = <{disabled|enabled}>]
                    [priotag = <{disabled|enabled}>]
                    [mtu = <number{1500-1982}>]
                    [vlan = <{default}>]
```

where:

| | | |
|---------|---|----------|
| intf | The name of the ETH interface to configure. | REQUIRED |
| dest | The destination interface for this ETH interface. | OPTIONAL |
| retry | The number of times the ETH connection setup should retry before giving up. | OPTIONAL |
| wan | Enable/Disable WAN for this ETH interface. | OPTIONAL |
| priotag | Enable/Disable VLAN priority tagging. | OPTIONAL |
| mtu | The MTU for this ETH interface. | OPTIONAL |
| vlan | The VLAN for this ETH interface. | OPTIONAL |

eth ifdelete

Delete an ETH interface.

SYNTAX:

```
eth ifdelete          intf = <{ethoa_8_35|eth_ge}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the ETH interface. | REQUIRED |
|------|--------------------------------|----------|

eth ifdetach

Detach an ETH interface.

SYNTAX:

```
eth ifdetach          intf = <{ethoa_8_35|eth_ge}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the ETH interface. | REQUIRED |
|------|--------------------------------|----------|

eth iflist

Display the ETH interfaces.

SYNTAX:

```
eth iflist [intf = <{ethoa_8_35|eth_ge}>]
```

where:

| | | |
|------|-------------------------------|----------|
| intf | The name of an ETH interface. | OPTIONAL |
|------|-------------------------------|----------|

eth switch group delete

Delete a specified port from a specified group.

SYNTAX:

```
eth switch group delete      group = <number{0-5}>
                             port = <number{1-5}>
```

where:

| | | |
|-------|---------------|----------|
| group | The group id. | REQUIRED |
| port | The port. | REQUIRED |

eth switch group flush

To set all ports to the default settings (all ports in group 0).

eth switch group list

List all configured groups.

eth switch group move

Move a specified port to a specified group.

SYNTAX:

```
eth switch group move          group = <number{0-5}>
                               port = <number{1-5}>
```

where:

| | | |
|-------|---------------|----------|
| group | The group id. | REQUIRED |
| port | The port. | REQUIRED |

eth switch info

Display switch capabilities

eth switch mirror capture

Define the specified port to be the Mirror Capture Port.

SYNTAX:

```
eth switch mirror capture      port = <number{1-5}>
```

where:

| | | |
|------|-----------|----------|
| port | The port. | REQUIRED |
|------|-----------|----------|

eth switch mirror egress

Enable or disable the specified port to be a Transmitted Port Mirroring.

SYNTAX:

```
eth switch mirror egress      port = <number{1-5}>
                               [state = <{enabled|disabled}>]
```

where:

| | | |
|-------|-----------------------|----------|
| port | The port. | REQUIRED |
| state | Enable/disable state. | OPTIONAL |

eth switch mirror ingress

Enable or disable the specified port to be a Received Port Mirroring.

SYNTAX:

```
eth switch mirror ingress      port = <number{1-5}>
                               [state = <{enabled|disabled}>]
```

where:

| | | |
|-------|-----------------------|----------|
| port | The port. | REQUIRED |
| state | Enable/disable state. | OPTIONAL |

eth switch qos config

Configure common qos parameters.

SYNTAX:

```
eth switch qos config          state = <{enabled|disabled}>
                               [nbrOfQueues = <number{0-4}>]
                               [realtime = <{enabled|disabled}>]
                               [threshold = <number{0-15}>]
                               [rxbackpressure = <{disabled|enabled}>]
                               [txbackpressure = <{disabled|enabled}>]
```

where:

| | | |
|----------------|--|----------|
| state | Enable/disable QoS. | REQUIRED |
| nbrOfQueues | Number of queues. | OPTIONAL |
| realtime | Enable/disable realtime. | OPTIONAL |
| threshold | Tx Qos threshold. | OPTIONAL |
| rxbackpressure | Enable/disable controlled receive from switch (OBC pauses Rx). | OPTIONAL |
| txbackpressure | Enable/disable controlled transmit to switch (switch pauses Tx). | OPTIONAL |

eth switch qos ifconfig

Configure per port qos parameters.

SYNTAX:

```
eth switch qos ifconfig      port = <number{1-5}>
                             mode = <[+/-]flag[+/-flag...]{802.1p high
                             diffserv tos}>
                             [flowcontrol = <{disabled|enabled}>]
```

where:

| | | |
|-------------|------------------------------|----------|
| port | The port. | REQUIRED |
| mode | Classifier. | REQUIRED |
| flowcontrol | Enable/disable flow-control. | OPTIONAL |

eth switch qos list

Display qos configuration.

eth switch qos weights

Configure the queue weights.

SYNTAX:

```
eth switch qos weights      queue0 = <number{0-100}>
                             queue1 = <number{0-100}>
                             queue2 = <number{0-100}>
                             queue3 = <number{0-100}>
```

where:

| | | |
|--------|----------------------------------|----------|
| queue0 | Weight of queue 0 in WFQ (in %). | REQUIRED |
| queue1 | Weight of queue 1 in WFQ (in %). | REQUIRED |
| queue2 | Weight of queue 2 in WFQ (in %). | REQUIRED |
| queue3 | Weight of queue 3 in WFQ (in %). | REQUIRED |

eth switch shaper config

Configure common ingress shaper parameters.

SYNTAX:

```
eth switch shaper config      shaper = <number{0-1}>
                               [unicast = <{enabled|disabled}>]
                               [multicast = <{enabled|disabled}>]
                               [broadcast = <{enabled|disabled}>]
                               [control = <{enabled|disabled}>]
                               [unknown = <{enabled|disabled}>]
                               [discard = <{enabled|disabled}>]
                               [normalize = <{enabled|disabled}>]
                               [exclude_ipg = <{enabled|disabled}>]
```

where:

| | | |
|-------------|--|----------|
| shaper | The shaper instance. | REQUIRED |
| unicast | Shape unicast traffic. | OPTIONAL |
| multicast | Shape multicast traffic. | OPTIONAL |
| broadcast | Shape broadcast traffic. | OPTIONAL |
| control | Shape MAC control traffic. | OPTIONAL |
| unknown | Shape traffic with unknown destination address. | OPTIONAL |
| discard | Discard frame at overflow (else attempt for flow control). | OPTIONAL |
| normalize | Use relative speed calculations. | OPTIONAL |
| exclude_ipg | Exclude the Inter Packet Gap in the speed calculations. | OPTIONAL |

eth switch shaper ifconfig

Configure per port shaper parameters.

SYNTAX:

```
eth switch shaper ifconfig      port = <number{1-5}>
                                ingress = <{enabled|disabled}>
                                shaper = <number{0-1}>
                                [state = <{enabled|disabled}>]
                                [speed = <number{64000-1000000000}>]
                                [burstsize = <{16|20|28|40|76|140|268|500}>]
```

where:

| | | |
|-----------|---|----------|
| port | The port. | REQUIRED |
| ingress | Ingress port = enabled; egress port = disabled. | REQUIRED |
| shaper | The shaper instance. | REQUIRED |
| state | Enable/disable shaping. | OPTIONAL |
| speed | Speed in bits/sec. | OPTIONAL |
| burstsize | Burst size in KBytes. | OPTIONAL |

eth switch shaper iflist

Display shaper configuration per port.

eth switch share add

Add a port to be shared.

SYNTAX:

```
eth switch share add          port = <number{1-5}>
                              shared = <number{1-5}>
```

where:

| | | |
|--------|------------------|----------|
| port | The port. | REQUIRED |
| shared | The shared port. | REQUIRED |

eth switch share delete

Delete a shared port.

SYNTAX:

```
eth switch share delete      port = <number{1-5}>
                             shared = <number{1-5}>
```

where:

| | | |
|--------|------------------|----------|
| port | The port. | REQUIRED |
| shared | The shared port. | REQUIRED |

eth switch share list

Display shared ports.

eth switch storm ifconfig

Configure per port storm control parameters.

SYNTAX:

```
eth switch storm ifconfig      port = <number{1-5}>
                               [state = <{enabled|disabled}>]
                               [rate = <number{0-1000}>]
                               [burstsize = <{16|20|28|40|76|140|268|500}>]
                               [broadcast = <{enabled|disabled}>]
                               [multicast = <{enabled|disabled}>]
                               [unknown = <{enabled|disabled}>]
```

where:

| | | |
|-----------|---|----------|
| port | The port. | REQUIRED |
| state | Enable/disable storm control. | OPTIONAL |
| rate | Rate in 10ths of percent. | OPTIONAL |
| burstsize | Burst size in KBytes. | OPTIONAL |
| broadcast | Storm control for broadcast traffic. | OPTIONAL |
| multicast | Storm control for multicast traffic. | OPTIONAL |
| unknown | Storm control for traffic with unknown destination address. | OPTIONAL |

eth switch storm iflist

Display storm control configuration per port.

eth vlan add

Add a new virtual LAN.

SYNTAX:

```
eth vlan add          name = <string>
                     vid = <number{2-4094}>
                     [brname = <{bridge}>]
                     [addrule = <{disabled|enabled}>]
```

where:

| | | |
|---------|------------------------------------|----------|
| name | The new VLAN name. | REQUIRED |
| vid | The new VLAN id. | REQUIRED |
| brname | The name of a bridge instance. | OPTIONAL |
| addrule | Add the default bridge constraint. | OPTIONAL |

eth vlan delete

Delete a virtual LAN.

SYNTAX:

```
eth vlan delete          [brname = <{bridge}>]  
                        name = <{default}>
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
| name | The VLAN name. | REQUIRED |

eth vlan flush

Flush all virtual LAN's.

eth vlan list

Display all virtual LAN's.

SYNTAX:

```
eth vlan list [brname = <{bridge}>]
```

where:

| | | |
|--------|--------------------------------|----------|
| brname | The name of a bridge instance. | OPTIONAL |
|--------|--------------------------------|----------|

eth vlan priomap config

Change a VLAN/DE to/from internalpriority mapping.

SYNTAX:

```
eth vlan priomap config      entry = <{prio_0_7_2vlan|prio_8_15_2vlan|
                             prio_0_7_2de|prio_8_15_2de|vlan2prio_de_0|
                             vlan2prio_de_1}>
                             priomap = <string>
```

where:

| | | |
|---------|----------------------------------|----------|
| entry | Which prioritymap entry to edit. | REQUIRED |
| priomap | The 8 priority mapping values. | REQUIRED |

eth vlan priomap list

Display the VLAN/DE to/from internal priority mappings.

expr Commands

| | | |
|--------------------|-------------------------------|--------------|
| <i>expr add</i> | <i>Add an expression.</i> | see page 534 |
| <i>expr delete</i> | <i>Delete an expression.</i> | see page 538 |
| <i>expr flush</i> | <i>Flush all expressions.</i> | see page 539 |
| <i>expr list</i> | <i>List expressions.</i> | see page 540 |
| <i>expr modify</i> | <i>Modify an expression.</i> | see page 541 |

expr add

Add an expression.

SYNTAX:

```

expr add          name = <{wan|local|lan|tunnel|dmz|guest|
                  contentsharing_ip|private|ssdp_ip|imap3|imap4-
                  ssl|imaps|pop2|pop3|pop3s|smtp|ssh|dns|nntp|
                  ipsec|esp|ah|ike|sip|h323|dhcp|rtsp|ssdp_serv|
                  mdap_serv|syslog|VoIP-Inc-SIP-UDP|VoIP-Inc-
                  SIP-TCP|VoIP-Inc-RTP|gre|icmpv6}>
                  [type = <{intf|ip|serv|mac|length}>]
                  mac [!] = <hardware-address>
                  addr [!] = <ip-range>
                  [mask [ = <ip-mask(dotted or cidr)>]
                  [intf [!] = <{loop|Internet|LocalNetwork|loop|
                  Internet|LocalNetwork}>]
                  [intfgroup [!] = <{wan|local|lan|tunnel|dmz|
                  guest}>]
                  [tos [!] = <number{0-255}>]
                  [precedence [!] = <{routine|priority|
                  immediate|flash|flash-override|CRITIC-ECP|
                  internetwork-control|network-control} or
                  number>]
                  [dscp [!] = <{ef|af11|af12|af13|af21|af22|
                  af23|af31|af32|af33|af41|af42|af43|cs0|cs1|
                  cs2|cs3|cs4|cs5|cs6|cs7} or number>]
                  [proto [!] = <{icmp|icmpv6|igmp|ipinip|tcp|
                  udp|ah|esp|ipcomp} or number>]
                  [srcport [!] = <{undefined|at-echo|at-nbp|
                  at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
                  finger|ftp|ftp-data|gopher|h323|httpproxy|
                  ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
                  irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
                  netbios-ns|netbios-ssn|netwall|netware-ip|new-
                  rwho|nfd|nicname|nntp|ntalk|ntp|pcmail-srv|
                  pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
                  rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
                  sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
                  telnet|time|timed|tftp|ulistserv|utime|uucp|
                  uucp-rlogin|who|www-http|whoami|xwindows} or
                  number>]
                  [srcportend = <{undefined|at-echo|at-nbp|
                  at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
                  finger|ftp|ftp-data|gopher|h323|httpproxy|
                  ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
                  irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
                  netbios-ns|netbios-ssn|netwall|netware-ip|new-
                  rwho|nfd|nicname|nntp|ntalk|ntp|pcmail-srv|
                  pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
                  rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
                  sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
                  telnet|time|timed|tftp|ulistserv|utime|uucp|

```

```

uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[dstport [!] = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfs|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[dstportend = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfs|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[icmptype [!] = <{destination-unreachable|
time-exceeded|parameter-problems|echo-request|
echo-reply|router-advertisement|router-
solicitation|timestamp-request|timestamp-
reply|information-request|information-reply|
address-mask-request|address-mask-reply|
multicast-listener-query|multicast-listener-
report|multicast-listener-done|neighbor-
advertisement|neighbor-solicitation|node-
information-query|node-information-response|
inverse-neighbor-solicitation|inverse-
neighbor-advertisement|v2-multicast-listener-
report|home-agent-address-request|home-agent-
address-reply|mobile-prefix-solicitation|
mobile-prefix-advertisement|certification-
path-solicitation|certification-path-
advertisement|multicast-router-advertisement|
multicast-router-solicitation|multicast-
router-termination} or number>]
[icmpcode [!] = <number{0-15}>]
[icmpcodeend = <number{0-15}>]
[iplengthmin [!] = <number>]
[iplengthmax = <number>]

```

where:

| | | |
|-----------------|---|----------|
| name | The name of an expression to add. | REQUIRED |
| type | The type of an expression. | OPTIONAL |
| mac [!] | The MAC address. If a value is preceded by a “!”, it means NOT. | REQUIRED |
| addr [!] | The IP address or range. If a value is preceded by a “!”, it means NOT. | REQUIRED |
| mask [| The IP mask (ignored if an IP range is provided). | OPTIONAL |
| intf [!] | The IP interface name. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| intfgroup [!] | The IP interface group. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| tos [!] | The Type Of Service specification in the IP packet. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| precedence [!] | The precedence in the IP packet (part of tos). If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| dscp [!] | The diffserv code point in the IP packet (part of tos). If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| proto [!] | The IP protocol (name or number) in the IP packet. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| srcport [!] | The TCP/UDP source port number or range begin. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| srcportend | The TCP/UDP source port range end. (inclusive) | OPTIONAL |
| dstport [!] | The TCP/UDP destination port number or range begin. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| dstportend | The TCP/UDP destination port range end. | OPTIONAL |
| icmpstype [!] | The ICMP type (name or number) of the packet. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| icmpcode [!] | The ICMP code or range begin. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| icmpcodeend | The ICMP code range end. (inclusive) | OPTIONAL |
| iplengthmin [!] | The minimum IP length in bytes (header inclusive). If a value is preceded by a “!”, it means NOT. | REQUIRED |

| | | |
|-------------|---|----------|
| iplengthmax | The maximum IP length including header in bytes (header inclusive). | OPTIONAL |
|-------------|---|----------|

expr delete

Delete an expression.

SYNTAX:

```
expr delete name = <{wan|local|lan|tunnel|dmz|guest|
contentsharing_ip|private|ssdp_ip|imap3|imap4-
ssl|imaps|pop2|pop3|pop3s|smtp|ssh|dns|nntp|
ipsec|esp|ah|ike|sip|h323|dhcp|rtsp|ssdp_serv|
mdap_serv|syslog|VoIP-Inc-SIP-UDP|VoIP-Inc-
SIP-TCP|VoIP-Inc-RTP|gre|icmpv6}>
[index = <number>]
```

where:

| | | |
|-------|--------------------------------------|----------|
| name | The name of an expression to delete. | REQUIRED |
| index | The index of a subexpression. | OPTIONAL |

expr flush

Flush all expressions.

expr list

List expressions.

SYNTAX:

```
expr list [name = <{_intf_loop|UPnP-HTTP_if_in|
_intf_Internet|_intf_LocalNetwork|DHCP-
lan|tunnel|dmz|guest|SSDP_if_in|DHCP-
S_if_in|HTTP_if_in|HTTPs_if_in|HTTP_I_if_in|
FTP_if_in|TELNET_if_in|DNS-S-UDP_if_in|DNS-
S-TCP_if_in|DNS-S_if_in|PING_RESPONDER_if_in|
MDAP_if_in|PPTPD_if_in|PPTPGRE_if_in|
PINGv6_RESP_if_in|DHCPv6-S_if_in|
RTSOL_if_in|_addr_local|_addr_127_0_0_1|
_addr____1|_ipv4_addr|_ipv6_addr|
_addr_fe80__1|_addr_fe80__290_d0ff_fe4e_f7ad|
_addr_10_0_0_138|_addr_192_168_1_254|
contentsharing_ip|private|ssdp_ip|mdap_ip|
RTADV_ip_in|UPnP-HTTP_sv_in|DHCP-R_sv_in|
DHCPv6-R-C_sv_in|DHCPv6-R-SR_sv_in|DHCPv6-
C_sv_in|icmp|igmp|ftp|telnet|http|httpproxy|
https|RPC|NBT|SMB|imap|imap3|imap4-ssl|imaps|
pop2|pop3|pop3s|smtp|ssh|dns|nntp|ipsec|
esp|ah|ike|sip|h323|dhcp|rtsp|ssdp_serv|
mdap_serv|syslog|VoIP-Inc-SIP-UDP|VoIP-Inc-
SIP-TCP|VoIP-Inc-RTP|gre|icmpv6|SSDP_sv_in|
DNS-C_sv_in|DNS-C_sv_out|DHCP-S_sv_in|DHCP-
S_sv_out|HTTP_sv_in|HTTPs_sv_in|HTTP_I_sv_in|
FTP_sv_in|TELNET_sv_in|IGMP-Proxy_sv|DNS-S-
UDP_sv_in|DNS-S-UDP_sv_out|DNS-S-TCP_sv_in|
DNS-S-TCP_sv_out|DNS-S_sv|PING_RESPONDER_sv|
MDAP_sv_in|PPTPD_sv_in|PPTPGRE_sv|
VOIP_SIP_UDP_sv_in|VOIP_SIP_UDP_sv_out|
PINGv6_RESP_sv|DHCPv6-S_sv_in|DHCPv6-S_sv_out|
MLD_sv|NDSOL_sv|NDADV_sv|RTSOL_sv|RTADV_sv}>]
[type = <{intf|ip|serv|mac|length}>]
[format = <{pretty|cli}>]
```

where:

| | | |
|--------|------------------------------------|----------|
| name | The name of an expression to list. | OPTIONAL |
| type | The type of an expression. | OPTIONAL |
| format | The format of the expression list. | OPTIONAL |

expr modify

Modify an expression.

SYNTAX:

```
expr modify name = <{wan|local|lan|tunnel|dmz|guest|
contentsharing_ip|private|ssdp_ip|imap3|imap4-
ssl|imaps|pop2|pop3|pop3s|smtp|ssh|dns|nntp|
ipsec|esp|ah|ike|sip|h323|dhcp|rtsp|ssdp_serv|
mdap_serv|syslog|VoIP-Inc-SIP-UDP|VoIP-Inc-
SIP-TCP|VoIP-Inc-RTP|gre|icmpv6}>
[type = <{intf|ip|serv|mac|length}>]
index = <number>
mac [!] = <hardware-address>
addr [!] = <ip-range>
[mask [ = <ip-mask(dotted or cidr)>]
[intf [!] = <{loop|Internet|LocalNetwork|loop|
Internet|LocalNetwork}>]
[intfgroup [!] = <{wan|local|lan|tunnel|dmz|
guest}>]
[tos [!] = <number{0-255}>]
[precedence [!] = <{routine|priority|
immediate|flash|flash-override|CRITIC-ECP|
internetwork-control|network-control} or
number>]
[dscp [!] = <{ef|af11|af12|af13|af21|af22|
af23|af31|af32|af33|af41|af42|af43|cs0|cs1|
cs2|cs3|cs4|cs5|cs6|cs7} or number>]
[proto [!] = <{icmp|icmpv6|igmp|ipinip|tcp|
udp|ah|esp|ipcomp} or number>]
[srcport [!] = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfd|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[srcportend = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfd|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
```

```

sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[dstport [!] = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfs|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[dstportend = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfs|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[icmptype [!] = <{destination-unreachable|
time-exceeded|parameter-problems|echo-request|
echo-reply|router-advertisement|router-
solicitation|timestamp-request|timestamp-
reply|information-request|information-reply|
address-mask-request|address-mask-reply|
multicast-listener-query|multicast-listener-
report|multicast-listener-done|neighbor-
advertisement|neighbor-solicitation|node-
information-query|node-information-response|
inverse-neighbor-solicitation|inverse-
neighbor-advertisement|v2-multicast-listener-
report|home-agent-address-request|home-agent-
address-reply|mobile-prefix-solicitation|
mobile-prefix-advertisement|certification-
path-solicitation|certification-path-
advertisement|multicast-router-advertisement|
multicast-router-solicitation|multicast-
router-termination} or number>]
[icmpcode [!] = <number{0-15}>]
[icmpcodeend = <number{0-15}>]
[iplengthmin [!] = <number>
[iplengthmax = <number>]

```

where:

| | | |
|-----------------|---|----------|
| name | The name of an expression to modify. | REQUIRED |
| type | The type of an expression. | OPTIONAL |
| index | The index of a subexpression. | REQUIRED |
| mac [!] | The MAC address. If a value is preceded by a “!”, it means NOT. | REQUIRED |
| addr [!] | The IP address or range. If a value is preceded by a “!”, it means NOT. | REQUIRED |
| mask [| The IP mask (ignored if an IP range is provided). | OPTIONAL |
| intf [!] | The IP interface name. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| intfgroup [!] | The IP interface group. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| tos [!] | The Type Of Service specification in the IP packet. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| precedence [!] | The precedence in the IP packet (part of tos). If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| dscp [!] | The diffserv code point in the IP packet (part of tos). If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| proto [!] | The IP protocol (name or number) in the IP packet. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| srcport [!] | The TCP/UDP source port number or range begin. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| srcportend | The TCP/UDP source port range end. (inclusive) | OPTIONAL |
| dstport [!] | The TCP/UDP destination port number or range begin. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| dstportend | The TCP/UDP destination port range end. | OPTIONAL |
| icmpstype [!] | The ICMP type (name or number) of the packet. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| icmpcode [!] | The ICMP code or range begin. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| icmpcodeend | The ICMP code range end. (inclusive) | OPTIONAL |
| iplengthmin [!] | The minimum IP length in bytes (header inclusive). | REQUIRED |

If a value is preceded by a “!”, it means NOT.

iplengthmax

The maximum IP length including header in bytes (header inclusive).

OPTIONAL

firewall Commands

| | | |
|--|---|--------------|
| <i>firewall chain add</i> | <i>Add a chain.</i> | see page 546 |
| <i>firewall chain delete</i> | <i>Delete a chain.</i> | see page 547 |
| <i>firewall chain flush</i> | <i>Flush all chains.</i> | see page 548 |
| <i>firewall chain list</i> | <i>Display a list of chains.</i> | see page 549 |
| <i>firewall clear</i> | <i>Clear firewall configuration.</i> | see page 550 |
| <i>firewall config</i> | <i>Display/Modify firewall configuration.</i> | see page 551 |
| <i>firewall debug clear</i> | <i>Clear firewall statistics.</i> | see page 552 |
| <i>firewall debug stats</i> | <i>Display firewall statistics.</i> | see page 553 |
| <i>firewall debug traceconfig</i> | <i>Display/Modify firewall trace configuration.</i> | see page 554 |
| <i>firewall level add</i> | <i>Add a new security level.</i> | see page 555 |
| <i>firewall level delete</i> | <i>Delete a security level.</i> | see page 556 |
| <i>firewall level flush</i> | <i>Flush security level configuration.</i> | see page 557 |
| <i>firewall level list</i> | <i>List all security levels.</i> | see page 558 |
| <i>firewall level modify</i> | <i>Modify a security level.</i> | see page 559 |
| <i>firewall level set</i> | <i>Set/Display active security level.</i> | see page 560 |
| <i>firewall list</i> | <i>Display firewall configuration.</i> | see page 561 |
| <i>firewall rule add</i> | <i>Add a rule.</i> | see page 562 |
| <i>firewall rule debug clear</i> | <i>Clear rule statistics.</i> | see page 564 |
| <i>firewall rule debug stats</i> | <i>Display rule statistics.</i> | see page 565 |
| <i>firewall rule debug traceconfig</i> | <i>Display/Modify rule trace configuration.</i> | see page 566 |
| <i>firewall rule delete</i> | <i>Delete a rule.</i> | see page 567 |
| <i>firewall rule flush</i> | <i>Flush all rules.</i> | see page 568 |
| <i>firewall rule list</i> | <i>Display a list of rules.</i> | see page 569 |
| <i>firewall rule modify</i> | <i>Modify a rule.</i> | see page 570 |

firewall chain add

Add a chain.

SYNTAX:

```
firewall chain add          chain = <string>
```

where:

| | | |
|-------|-------------------------------|----------|
| chain | The name of the chain to add. | REQUIRED |
|-------|-------------------------------|----------|

firewall chain delete

Delete a chain.

SYNTAX:

```
firewall chain delete          chain = <chain name>
```

where:

| | | |
|-------|----------------------------------|----------|
| chain | The name of the chain to delete. | REQUIRED |
|-------|----------------------------------|----------|

firewall chain flush

Flush all chains.

firewall chain list

Display a list of chains.

SYNTAX:

```
firewall chain list [format = <{pretty|cli}>]
```

where:

| | | |
|--------|-------------------------------|----------|
| format | The format of the chain list. | OPTIONAL |
|--------|-------------------------------|----------|

firewall clear

Clear firewall configuration.

firewall config

Display/Modify firewall configuration.

SYNTAX:

```
firewall config [state = <{disabled|enabled}>]
                [keep = <{disabled|enabled}>]
                [tcpchecks = <{none|fast|exact}>]
                [udpchecks = <{disabled|enabled}>]
                [icmpchecks = <{disabled|enabled}>]
                [logdefault = <{disabled|enabled}>]
                [logthreshold = <{disabled|enabled}>]
                [tcpwindow = <number{0-1073725440}>]
```

where:

| | | |
|--------------|---|----------|
| state | Disable/Enable the firewall. | OPTIONAL |
| keep | Disable/Enable keeping existing connections when firewall rules change. | OPTIONAL |
| tcpchecks | Select level of TCP checks. | OPTIONAL |
| udpchecks | Disable/Enable UDP checks. | OPTIONAL |
| icmpchecks | Disable/Enable ICMP checks. | OPTIONAL |
| logdefault | Disable/Enable logging of default firewall rule. | OPTIONAL |
| logthreshold | Disable/Enable log thresholding. | OPTIONAL |
| tcpwindow | Modify the tcpwindow for fast TCP checks | OPTIONAL |

firewall debug clear

Clear firewall statistics.

firewall debug stats

Display firewall statistics.

firewall debug traceconfig

Display/Modify firewall trace configuration.

SYNTAX:

```
firewall debug traceconfig    [tcpchecks = <{disabled|enabled}>]
                             [udpchecks = <{disabled|enabled}>]
                             [icmpchecks = <{disabled|enabled}>]
                             [sink = <{none|all|accept|deny|drop|reset} or
                             number>]
                             [forward = <{none|all|accept|deny|drop|reset}
                             or number>]
                             [source = <{none|all|accept|deny|drop|reset}
                             or number>]
```

where:

| | | |
|------------|---|----------|
| tcpchecks | Disable/Enable tcpchecks traces. | OPTIONAL |
| udpchecks | Disable/Enable udpchecks traces. | OPTIONAL |
| icmpchecks | Disable/Enable icmpchecks traces. | OPTIONAL |
| sink | The action the firewall traces for sink traffic. | OPTIONAL |
| forward | The action the firewall traces for forward traffic. | OPTIONAL |
| source | The action the firewall traces for source traffic. | OPTIONAL |

firewall level add

Add a new security level.

SYNTAX:

```
firewall level add          name = <string>
                           [index = <number>]
                           [readonly = <{disabled|enabled}>]
                           [udptrackmode = <{strict|loose}>]
                           [service = <{disabled|enabled}>]
                           [proxy = <{disabled|enabled}>]
                           [text = <quoted string>]
                           [policy = <{default|drop|accept}>]
```

where:

| | | |
|--------------|--|----------|
| name | The name of the security level to add. | REQUIRED |
| index | The index of the security level. | OPTIONAL |
| readonly | Select whether the security level is readonly. | OPTIONAL |
| udptrackmode | Select UDP connection tracking mode. | OPTIONAL |
| service | Enable/Disable host service definitions for this security level. | OPTIONAL |
| proxy | Enable/Disable proxy system services for this security level. | OPTIONAL |
| text | The description of this security level. | OPTIONAL |
| policy | Select default policy of this security level. | OPTIONAL |

firewall level delete

Delete a security level.

SYNTAX:

```
firewall level delete          name = <security level nam>
```

where:

| | | |
|------|---|----------|
| name | The name of the security level to delete. | REQUIRED |
|------|---|----------|

firewall level flush

Flush security level configuration.

firewall level list

List all security levels.

SYNTAX:

```
firewall level list [format = <{pretty|cli}>]
```

where:

| | | |
|--------|--|----------|
| format | The format of the security level list. | OPTIONAL |
|--------|--|----------|

firewall level modify

Modify a security level.

SYNTAX:

```
firewall level modify      name = <security level nam>
                           [index = <number>]
                           [readonly = <{disabled|enabled}>]
                           [udptrackmode = <{strict|loose}>]
                           [service = <{disabled|enabled}>]
                           [proxy = <{disabled|enabled}>]
                           [text = <quoted string>]
                           [policy = <{default|drop|accept}>]
```

where:

| | | |
|--------------|---|----------|
| name | The name of the security level to modify. | REQUIRED |
| index | The index of this security level. | OPTIONAL |
| readonly | Select whether the security level is readonly. | OPTIONAL |
| udptrackmode | Select UDP connection tracking mode. | OPTIONAL |
| service | Enable/Disable service definitions for this security level. | OPTIONAL |
| proxy | Enable/Disable proxy system services for this security level. | OPTIONAL |
| text | The description of this security level. | OPTIONAL |
| policy | Select default policy of this security level. | OPTIONAL |

firewall level set

Set/Display active security level.

SYNTAX:

```
firewall level set [name = <security level nam>]
```

where:

| | | |
|------|---|----------|
| name | The name of the security level to set active. | OPTIONAL |
|------|---|----------|

firewall list

Display firewall configuration.

SYNTAX:

```
firewall list [format = <{pretty|cli}>]
```

where:

| | | |
|--------|----------------------------------|----------|
| format | The format of the firewall list. | OPTIONAL |
|--------|----------------------------------|----------|

firewall rule add

Add a rule.

SYNTAX:

```

firewall rule add          chain = <chain name>
                           [index = <number>]
                           [name = <string>]
                           [clink = <chain name>]
                           [srcintf [!] = <{wan|local|lan|tunnel|dmz|
                           guest}>]
                           [srcip [!] = <{contentsharing_ip|private|
                           ssdp_ip|mdap_ip}>]
                           [dstintf [!] = <{wan|local|lan|tunnel|dmz|
                           guest}>]
                           [dstip [!] = <{contentsharing_ip|private|
                           ssdp_ip|mdap_ip}>]
                           [serv [!] = <{icmp|igmp|ftp|telnet|http|
                           httpproxy|https|RPC|NBT|SMB|imap|esp|ah|ike|
                           sip|h323|dhcp|rtsp|ssdp_serv|mdap_serv|syslog|
                           VoIP-Inc-SIP-UDP|VoIP-Inc-SIP-TCP|VoIP-Inc-
                           RTP|gre|icmpv6}>]
                           [length [!] = <{}>]
                           [log = <{disabled|enabled}>]
                           [state = <{disabled|enabled}>]
                           action = <{accept|deny|drop|reset|count|link}>

```

where:

| | | |
|-------------|---|----------|
| chain | The name of the chain which contains the rule. | REQUIRED |
| index | The index of the rule in the chain. | OPTIONAL |
| name | The name of the new rule. | OPTIONAL |
| clink | The name of the chain to be parsed when this rule applies. | OPTIONAL |
| srcintf [!] | The name of the source interface expression. If a value is preceded by a "!", it means NOT. | OPTIONAL |
| srcip [!] | The name of the source ip expression. If a value is preceded by a "!", it means NOT. | OPTIONAL |
| dstintf [!] | The name of the destination interface expression. If a value is preceded by a "!", it means NOT. | OPTIONAL |
| dstip [!] | The name of the destination ip expression. If a value is preceded by a "!", it means NOT. | OPTIONAL |
| serv [!] | The name of the service expression. If a value is preceded by a "!", it means NOT. | OPTIONAL |

| | | |
|------------|--|----------|
| length [!] | The name of the length expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| log | Disable/Enable logging when this rule applies. | OPTIONAL |
| state | Disable/Enable this rule. | OPTIONAL |
| action | The action to be taken when this rule applies (‘link’ when clink is used). | REQUIRED |

firewall rule debug clear

Clear rule statistics.

SYNTAX:

```
firewall rule debug clear      [chain = <chain name>]
                               [index = <number>]
```

where:

| | | |
|-------|-------------------------------------|----------|
| chain | The name of the chain. | OPTIONAL |
| index | The index of the rule in the chain. | OPTIONAL |

firewall rule debug stats

Display rule statistics.

SYNTAX:

```
firewall rule debug stats      [chain = <chain name>]
                               [index = <number>]
```

where:

| | | |
|-------|-------------------------------------|----------|
| chain | The name of the chain. | OPTIONAL |
| index | The index of the rule in the chain. | OPTIONAL |

firewall rule debug traceconfig

Display/Modify rule trace configuration.

SYNTAX:

```
firewall rule debug          [state = <{disabled|enabled}>]  
traceconfig
```

where:

| | | |
|-------|-----------------------------|----------|
| state | Disable/Enable rule traces. | OPTIONAL |
|-------|-----------------------------|----------|

firewall rule delete

Delete a rule.

SYNTAX:

```
firewall rule delete          chain = <chain name>
                              index = <number>
```

where:

| | | |
|-------|--|----------|
| chain | The name of the chain in which to delete the rule. | REQUIRED |
| index | The number of the rule in the chain. | REQUIRED |

firewall rule flush

Flush all rules.

SYNTAX:

```
firewall rule flush [chain = <chain name>]
```

where:

| | | |
|-------|---------------------------------|----------|
| chain | The name of the chain to flush. | OPTIONAL |
|-------|---------------------------------|----------|

firewall rule list

Display a list of rules.

SYNTAX:

```
firewall rule list          [chain = <chain name>]
                           [format = <{pretty|cli}>]
```

where:

| | | |
|--------|---|----------|
| chain | The name of the chain to list the rules of. | OPTIONAL |
| format | The format of the rule list. | OPTIONAL |

firewall rule modify

Modify a rule.

SYNTAX:

```
firewall rule modify          chain = <chain name>
                              [index = <number>]
                              [newindex = <number>]
                              [name = <string>]
                              [clink = <chain name>]
                              [[!]srcintf] = <chain name>]
                              [[!]srcip] = <chain name>]
                              [[!]dstintf] = <chain name>]
                              [[!]dstip] = <chain name>]
                              [[!]serv] = <chain name>]
                              [[!]length] = <chain name>]
                              [log = <{disabled|enabled}>]
                              [state = <{disabled|enabled}>]
                              [action = <{accept|deny|drop|reset|count|
link}>]
```

where:

| | | |
|--------------|---|----------|
| chain | The name of the chain which contains the rule. | REQUIRED |
| index | The index of the rule in the chain. | OPTIONAL |
| newindex | The new index of the rule in the chain. | OPTIONAL |
| name | The name of the new rule. | OPTIONAL |
| clink | The name of the chain to be parsed when this rule applies. | OPTIONAL |
| [[!]srcintf] | The name of the source interface expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]srcip] | The name of the source ip expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]dstintf] | The name of the destination interface expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]dstip] | The name of the destination ip expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]serv] | The name of the service expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]length] | The name of the length expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| log | Disable/Enable logging when this rule applies. | OPTIONAL |

| | | |
|--------|---|----------|
| state | Disable/Enable this rule. | OPTIONAL |
| action | The action to be taken when this rule applies ('link' when link is used). | OPTIONAL |

grp Commands

| | | |
|-------------------------|--|--------------|
| <i>grp config</i> | <i>Set the grp configuration settings.</i> | see page 574 |
| <i>grp flush</i> | <i>Flush grp interface settings and parameters.</i> | see page 575 |
| <i>grp rip config</i> | <i>Set the RIP configuration settings.</i> | see page 576 |
| <i>grp rip flush</i> | <i>Flush RIP interface settings and global parameters.</i> | see page 577 |
| <i>grp rip ifconfig</i> | <i>Configure a RIP interface.</i> | see page 578 |
| <i>grp rip show</i> | <i>Show the RIP settings and the routes in the RIP database.</i> | see page 579 |
| <i>grp rtbody</i> | <i>Show the current routes in the grp routing table.</i> | see page 580 |

grp config

Set the grp configuration settings.

SYNTAX:

```
grp config [cdistance = <number{0-255}>]
           [kdistance = <number{0-255}>]
           [rdistance = <number{0-255}>]
           [trace = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| cdistance | Set the distance of the connected route type. Default distance is 0. | OPTIONAL |
| kdistance | Set the distance of the kernel route type. Default distance is 1. | OPTIONAL |
| rdistance | Set the distance of the RIP route type. Default distance is 120. | OPTIONAL |
| trace | Enable/Disable tracing. | OPTIONAL |

grp flush

Flush grp interface settings and parameters.

grp rip config

Set the RIP configuration settings.

SYNTAX:

```
grp rip config          state = <{disabled|enabled}>
                        [version = <{rip_unspec|rip_v1|rip_v2}>]
                        [updatetime = <number{1-3600}>]
```

where:

| | | |
|------------|--|----------|
| state | Enable/Disable the RIP daemon. | REQUIRED |
| version | Set the RIP version. | OPTIONAL |
| updatetime | Set the routing table update timer value. Default is 30 seconds. | OPTIONAL |

grp rip flush

Flush RIP interface settings and global parameters.

grp rip ifconfig

Configure a RIP interface.

SYNTAX:

```
grp rip ifconfig          intf = <{LocalNetwork|Internet}>
                          [rip = <{disabled|enabled}>]
                          [rxversion = <{rip_unspec|rip_v1|rip_v2|
rip_v1-2}>]
                          [authmode = <{none|cleartext}>]
                          [authstr = <password>]
                          [splithorizon = <{disabled|enabled}>]
```

where:

| | | |
|--------------|---|----------|
| intf | The name of the RIP interface to configure. | REQUIRED |
| rip | Enable/Disable the RIP status. | OPTIONAL |
| rxversion | Set the RIP receive version. | OPTIONAL |
| authmode | Set the RIP authentication mode. | OPTIONAL |
| authstr | Set the RIP authentication password. | OPTIONAL |
| splithorizon | Enable/Disable the split horizon status. | OPTIONAL |

grp rip show

Show the RIP settings and the routes in the RIP database.

grp rtlist

Show the current routes in the grp routing table.

SYNTAX:

```
grp rtlist [dst = <ipv4-address>]
           [dstmsk = <ip-mask(dotted or cidr)>]
```

where:

| | | |
|--------|---|----------|
| dst | The destination IP address using this route. Supports ip/ mask notation. | OPTIONAL |
| dstmsk | The destination IP address mask. | OPTIONAL |

help Command

Create a new ATM interface.

SYNTAX:

```
atm ifadd                               intf = <string>
                                         [queues = <number{0-8}>]
                                         [priority = <{strict|cwrr|pwrr|wfq}>]
```

where:

| | | |
|----------|--|----------|
| intf | The name for the new ATM interface. If not specified, the destination will double as interface name. | REQUIRED |
| queues | Number of Transmit Queue of the EFM Interface (default=1) | OPTIONAL |
| priority | The weight of this queue used for Strict Priority, WFQ, CWRR or PWRR. (default=strict priority) | OPTIONAL |

hostmgr Commands

| | | |
|-----------------------|--|--------------|
| <i>hostmgr add</i> | <i>Add host device</i> | see page 584 |
| <i>hostmgr clear</i> | <i>Remove all host devices</i> | see page 585 |
| <i>hostmgr config</i> | <i>Configure Device Discovery daemon</i> | see page 586 |
| <i>hostmgr delete</i> | <i>Delete host device</i> | see page 587 |
| <i>hostmgr flush</i> | <i>Flush Device Discovery configuration (i.e. clear & to defaults)</i> | see page 588 |
| <i>hostmgr list</i> | <i>List all host devices</i> | see page 589 |
| <i>hostmgr update</i> | <i>Update host device parameters</i> | see page 590 |

hostmgr add

Add host device

SYNTAX:

```
hostmgr add mac_addr = <hardware-address>
            [host_type = <{Generic|Desktop|Laptop|STB|PDA|
            GS|Phone|GSM|Printer|MassStorage|None}>]
            [host_name = <string>]
            [user_friendly_name = <quoted string>]
            [dns_name = <string>]
            [type = <{Unknown|L2-FXS|L2-USB|L2-BT|L3-IP|
            L7-UPNP|L2-PPPOERELAY|L2-WLAN}>]
            [interface = <string>]
            [ip_intf = <string>]
```

where:

| | | |
|--------------------|------------------------------|----------|
| mac_addr | Host MAC address | REQUIRED |
| host_type | Host type | OPTIONAL |
| host_name | Host name | OPTIONAL |
| user_friendly_name | Host user friendly name | OPTIONAL |
| dns_name | Host DNS name | OPTIONAL |
| type | Host connection type | OPTIONAL |
| interface | Host Ethernet interface XREF | OPTIONAL |
| ip_intf | Host IP interface XREF | OPTIONAL |

hostmgr clear

Remove all host devices

hostmgr config

Configure Device Discovery daemon

SYNTAX:

```
hostmgr config          [state = <{disabled|enabled}>]  
                        [trace = <{disabled|enabled}>]
```

where:

| | | |
|-------|--|----------|
| state | Enable/disable Device Discovery daemon | OPTIONAL |
| trace | Enable/disable Device Discovery traces | OPTIONAL |

hostmgr delete

Delete host device

SYNTAX:

```
hostmgr delete mac_addr = <hardware-address>
               [type = <{Unknown|L2-FXS|L2-USB|L2-BT|L3-IP|
               L7-UPNP|L2-PPPOERELAY|L2-WLAN}>]
               [index = <number>]
```

where:

| | | |
|----------|----------------------|----------|
| mac_addr | Host MAC address | REQUIRED |
| type | Host connection type | OPTIONAL |
| index | Host index | OPTIONAL |

hostmgr flush

Flush Device Discovery configuration (i.e. clear & to defaults)

hostmgr list

List all host devices

SYNTAX:

```
hostmgr list [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

hostmgr update

Update host device parameters

SYNTAX:

```
hostmgr update          mac_addr = <hardware-address>
                        [host_type = <{Generic|Desktop|Laptop|STB|PDA|
                        GS|Phone|GSM|Printer|MassStorage|None}>]
                        [host_name = <string>]
                        [user_friendly_name = <quoted string>]
                        [dns_name = <string>]
                        [type = <{Unknown|L2-FXS|L2-USB|L2-BT|L3-IP|
                        L7-UPNP|L2-PPPOERELAY|L2-WLAN}>]
                        [interface = <string>]
                        [ip_intf = <string>]
```

where:

| | | |
|--------------------|------------------------------|----------|
| mac_addr | Host MAC address | REQUIRED |
| host_type | Host type | OPTIONAL |
| host_name | Host name | OPTIONAL |
| user_friendly_name | Host user friendly name | OPTIONAL |
| dns_name | Host DNS name | OPTIONAL |
| type | Host connection type | OPTIONAL |
| interface | Host Ethernet interface XREF | OPTIONAL |
| ip_intf | Host IP interface XREF | OPTIONAL |

ids Commands

| | | |
|-----------------------------|---|--------------|
| <i>ids clear</i> | <i>Clear IDS statistics.</i> | see page 592 |
| <i>ids config</i> | <i>Display/Modify IDS configuration.</i> | see page 593 |
| <i>ids parser list</i> | <i>Display ids parser configuration.</i> | see page 594 |
| <i>ids parser modify</i> | <i>Modify ids parser configuration.</i> | see page 595 |
| <i>ids pattern clear</i> | <i>Reset pattern tracker.</i> | see page 596 |
| <i>ids pattern list</i> | <i>Display patterns in pattern tracker.</i> | see page 597 |
| <i>ids pattern stats</i> | <i>Display pattern tracker statistics.</i> | see page 598 |
| <i>ids signature list</i> | <i>Display ids signature configuration.</i> | see page 599 |
| <i>ids signature modify</i> | <i>Modify ids signature configuration.</i> | see page 600 |
| <i>ids threshold clear</i> | <i>Reset IDS thresholds.</i> | see page 601 |
| <i>ids threshold list</i> | <i>Display IDS thresholds.</i> | see page 602 |
| <i>ids threshold modify</i> | <i>Modify IDS threshold.</i> | see page 603 |

ids clear

Clear IDS statistics.

ids config

Display/Modify IDS configuration.

SYNTAX:

```
ids config [state = <{disabled|enabled}>]
           [trace = <{disabled|enabled}>]
```

where:

| | | |
|-------|----------------------------|----------|
| state | Enable/Disable ids checks. | OPTIONAL |
| trace | Enable/Disable ids traces. | OPTIONAL |

ids parser list

Display ids parser configuration.

SYNTAX:

```
ids parser list [parser = <parser>]
```

where:

| | | |
|--------|-------------------------|----------|
| parser | The name of the parser. | OPTIONAL |
|--------|-------------------------|----------|

ids parser modify

Modify ids parser configuration.

SYNTAX:

```
ids parser modify          [parser = <parser>]
                           state = <{disabled|enabled}>
```

where:

| | | |
|--------|--------------------------|----------|
| parser | The name of the parser. | OPTIONAL |
| state | The state of the parser. | REQUIRED |

ids pattern clear

Reset pattern tracker.

ids pattern list

Display patterns in pattern tracker.

SYNTAX:

```
ids pattern list [size = <{10|100|full} or number>]
```

where:

| | | |
|------|--|----------|
| size | Modify the size of pattern tracker list. | OPTIONAL |
|------|--|----------|

ids pattern stats

Display pattern tracker statistics.

ids signature list

Display ids signature configuration.

SYNTAX:

```
ids signature list [signature = <{fragment_sweep|zero-
length_fragment_size|small_fragment_size|
ip_protocol_scan|tcp_port_scan|
tcp_syn_scan|stealth_tcp_null_scan|
stealth_tcp_fin_scan|stealth_tcp_xmas_scan|
stealth_tcp_full_xmas_scan|
stealth_tcp_vecna_scan|stealth_tcp_syn-
fin_scan|udp_port_scan|ping_sweep_scan|
tcp_syn_flood|udp_flood|ping_flood|
icmp_unreachable_storm|smurf_broadcast_attack|
smurf_storm_attack|fraggle_broadcast_attack|
fraggle_storm_attack|land_attack|
spoofed_packet|tcp_null_port|
tcp_data_on_syn_segment|
tcp_invalid_data_offset|
tcp_invalid_urgent_offset|udp_null_port|
icmp_type_unknown|icmp_code_unknown|
ip_zero_payload|incomplete_transport_header|
tcp_rate_limiting|udp_rate_limiting|
icmp_rate_limiting|ip_rate_limiting}>]
```

where:

| | | |
|-----------|----------------------------|----------|
| signature | The name of the signature. | OPTIONAL |
|-----------|----------------------------|----------|

ids signature modify

Modify ids signature configuration.

SYNTAX:

```
ids signature modify [signature = <{fragment_sweep|zero-
length_fragment_size|small_fragment_size|
ip_protocol_scan|tcp_port_scan|
tcp_syn_scan|stealth_tcp_null_scan|
stealth_tcp_fin_scan|stealth_tcp_xmas_scan|
stealth_tcp_full_xmas_scan|
stealth_tcp_vecna_scan|stealth_tcp_syn-
fin_scan|udp_port_scan|ping_sweep_scan|
tcp_syn_flood|udp_flood|ping_flood|
icmp_unreachable_storm|smurf_broadcast_attack|
smurf_storm_attack|fraggle_broadcast_attack|
fraggle_storm_attack|land_attack|
spoofed_packet|tcp_null_port|
tcp_data_on_syn_segment|
tcp_invalid_data_offset|
tcp_invalid_urgent_offset|udp_null_port|
icmp_type_unknown|icmp_code_unknown|
ip_zero_payload|incomplete_transport_header|
tcp_rate_limiting|udp_rate_limiting|
icmp_rate_limiting|ip_rate_limiting}>]
state = <{disabled|enabled}>
```

where:

| | | |
|-----------|----------------------------|----------|
| signature | The name of the signature. | OPTIONAL |
| state | The state of the sign. | REQUIRED |

ids threshold clear

Reset IDS thresholds.

ids threshold list

Display IDS thresholds.

ids threshold modify

Modify IDS threshold.

SYNTAX:

```
ids threshold modify      index = <number>
                          [window = <number>]
                          [limit = <number>]
                          [scaling = <{disabled|enabled}>]
```

where:

| | | |
|---------|-----------------------------------|----------|
| index | The index of the threshold. | REQUIRED |
| window | The time window of the threshold. | OPTIONAL |
| limit | The limit of the threshold. | OPTIONAL |
| scaling | Scaling of the threshold window. | OPTIONAL |

igmp Commands

| | | |
|-------------------------------------|---|--------------|
| <i>igmp host config</i> | <i>Display/Modify global IGMP configuration.</i> | see page 606 |
| <i>igmp host debug clear</i> | <i>Clear IGMP statistics.</i> | see page 607 |
| <i>igmp host debug stats</i> | <i>Print IGMP statistics.</i> | see page 608 |
| <i>igmp host flush</i> | <i>Flush the IGMP settings.</i> | see page 609 |
| <i>igmp host ifconfig</i> | <i>Configure an IGMP interface.</i> | see page 610 |
| <i>igmp host iflist</i> | <i>Show the configuration of the IGMP interfaces.</i> | see page 611 |
| <i>igmp host list</i> | <i>Show the IGMP groups.</i> | see page 612 |
| <i>igmp proxy config</i> | <i>Configure the IGMP proxy.</i> | see page 613 |
| <i>igmp proxy debug clear</i> | <i>Clear IGMP proxy statistics</i> | see page 614 |
| <i>igmp proxy debug stats</i> | <i>Print IGMP proxy statistics</i> | see page 615 |
| <i>igmp proxy debug traceconfig</i> | <i>Modify IGMP proxy trace configuration</i> | see page 616 |
| <i>igmp proxy flush</i> | <i>Flush all IGMP proxy settings and learned groups</i> | see page 617 |
| <i>igmp proxy grouplist</i> | <i>Show the learned groups on an IGMP proxy interface.</i> | see page 618 |
| <i>igmp proxy ifconfig</i> | <i>Configure an IGMP proxy interface.</i> | see page 619 |
| <i>igmp proxy iflist</i> | <i>Show the configuration of an IGMP proxy interface.</i> | see page 620 |
| <i>igmp proxy mbslist</i> | <i>Show the IGMP proxy membership database (merge of all learned groups).</i> | see page 621 |

igmp host config

Display/Modify global IGMP configuration.

SYNTAX:

```
igmp host config [requirera = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| requirera | Enable/Disable the router alert IP option check. | OPTIONAL |
|-----------|--|----------|

igmp host debug clear

Clear IGMP statistics.

igmp host debug stats

Print IGMP statistics.

igmp host flush

Flush the IGMP settings.

igmp host ifconfig

Configure an IGMP interface.

SYNTAX:

```
igmp host ifconfig          intf = <{loop|Internet|LocalNetwork}>  
                           version = <{none|IGMPv1|IGMPv2|IGMPv3}>
```

where:

| | | |
|---------|---------------------------------------|----------|
| intf | The IP interface name. | REQUIRED |
| version | The IGMP version of the IP interface. | REQUIRED |

igmp host iflist

Show the configuration of the IGMP interfaces.

SYNTAX:

```
igmp host iflist [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

igmp host list

Show the IGMP groups.

SYNTAX:

```
igmp host list [intf = <{loop|Internet|LocalNetwork}>]
               [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|------------------------|----------|
| intf | The IP interface name. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

igmp proxy config

Configure the IGMP proxy.

SYNTAX:

```
igmp proxy config [state = <{disabled|enabled}>]
                  [qi = <number{1-31744}>]
                  [qri = <number{1-3175}>]
                  [lmqi = <number{1-3175}>]
                  [rv = <number{2-8}>]
                  [advinter = <number{4-180}>]
                  [initadvinter = <number{1-4}>]
                  [initadvcount = <number{1-10}>]
                  [requirera = <{disabled|enabled}>]
                  [localgroup = <{disabled|enabled}>]
```

where:

| | | |
|--------------|---|----------|
| state | Enable/Disable the IGMP proxy. | OPTIONAL |
| qi | The interval in seconds between general queries sent by the querier. | OPTIONAL |
| qri | The maximum response time in seconds for an IGMP client in reply to general queries. | OPTIONAL |
| lmqi | The maximum response time in seconds for an IGMP client in reply to group specific queries. | OPTIONAL |
| rv | The robustness variable allows tuning for expected IGMP packet loss. | OPTIONAL |
| advinter | The interval in seconds for unsolicited MRD advertisements (see rfc4286). | OPTIONAL |
| initadvinter | The interval in seconds for initial unsolicited MRD advertisements (see rfc4286). | OPTIONAL |
| initadvcount | The maximum number of initial unsolicited MRD advertisements (see rfc4286). | OPTIONAL |
| requirera | Enable/Disable the router alert IP option check. | OPTIONAL |
| localgroup | Enable/Disable the processing of a local multicast group in an IGMP packet. | OPTIONAL |

igmp proxy debug clear

Clear IGMP proxy statistics

igmp proxy debug stats

Print IGMP proxy statistics

igmp proxy debug traceconfig

Modify IGMP proxy trace configuration

SYNTAX:

```
igmp proxy debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

igmp proxy flush

Flush all IGMP proxy settings and learned groups

igmp proxy grouplist

Show the learned groups on an IGMP proxy interface.

SYNTAX:

```
igmp proxy grouplist          [intf = <{LocalNetwork}>]  
                              [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| intf | The name of the IGMP proxy interface to be listed. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

igmp proxy ifconfig

Configure an IGMP proxy interface.

SYNTAX:

```
igmp proxy ifconfig          intf = <{LocalNetwork|Internet}>
                             [state = <{inactive|downstream|upstream}>]
                             [version = <{IGMPv1|IGMPv2|IGMPv3}>]
                             [fastleave = <{disabled|enabled}>]
                             [exptrack = <{disabled|enabled}>]
                             [mrd = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| intf | The name of the IGMP proxy interface to be configured. | REQUIRED |
| state | The state of the IGMP proxy interface. | OPTIONAL |
| version | The IGMP version of the IGMP proxy interface. | OPTIONAL |
| fastleave | Enable/Disable the immediate deletion of a group when a leave is received. | OPTIONAL |
| exptrack | Enable/Disable explicit host tracking. | OPTIONAL |
| mrd | Enable/Disable sending multicast router advertisements (rfc 4286). | OPTIONAL |

igmp proxy iflist

Show the configuration of an IGMP proxy interface.

SYNTAX:

```
igmp proxy iflist [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

igmp proxy mbslist

Show the IGMP proxy membership database (merge of all learned groups).

interface Commands

interface ifstack

Display ifstack.

see page 624

interface list

Display interfaces.

see page 625

interface ifstack

Display ifstack.

interface list

Display interfaces.

SYNTAX:

```
interface list [expand = <{disabled|enabled}>]
               [reverse = <{disabled|enabled}>]
```

where:

| | | |
|---------|---|----------|
| expand | Expanded listing. | OPTIONAL |
| reverse | Reverse listing (lower layer iso. upper layer). | OPTIONAL |

ip Commands

| | | |
|----------------------------------|---|--------------|
| <i>ip aip config</i> | <i>Display/Modify AIP configuration.</i> | see page 630 |
| <i>ip aip hw config</i> | <i>Display/Modify AIP HW configuration.</i> | see page 631 |
| <i>ip aip hw fap</i> | <i>Display/Modify FAP configuration.</i> | see page 632 |
| <i>ip aip hw flush</i> | <i>Reset AIP HW configuration.</i> | see page 633 |
| <i>ip aip hw stats</i> | <i>Display statistics about AIP HW usage.</i> | see page 634 |
| <i>ip aip list</i> | <i>Display AIP session list.</i> | see page 635 |
| <i>ip aip stats</i> | <i>Display AIP session/intf statistics</i> | see page 636 |
| <i>ip arpadd</i> | <i>Add an entry to the ARP cache of a broadcast IP interface.</i> | see page 637 |
| <i>ip arpdelete</i> | <i>Delete an ARP entry.</i> | see page 638 |
| <i>ip arplist</i> | <i>Display the ARP cache.</i> | see page 639 |
| <i>ip auto debug traceconfig</i> | <i>Modify autoIP trace configuration</i> | see page 640 |
| <i>ip auto flush</i> | <i>Flushes autoIP interfaces.</i> | see page 641 |
| <i>ip auto ifadd</i> | <i>Creates a new autoIP interface.</i> | see page 642 |
| <i>ip auto ifattach</i> | <i>Select and assign a link-local address to an autoIP interface.</i> | see page 643 |
| <i>ip auto ifconfig</i> | <i>Configures an autoIP interface.</i> | see page 644 |
| <i>ip auto ifdelete</i> | <i>Deletes an existing autoIP interface.</i> | see page 645 |
| <i>ip auto ifdetach</i> | <i>Release the link-local address for the given autoIP interface.</i> | see page 646 |
| <i>ip auto iflist</i> | <i>Shows the autoIP interfaces.</i> | see page 647 |
| <i>ip clearifstats</i> | <i>Flush IP interface statistics.</i> | see page 648 |
| <i>ip config</i> | <i>Display/Modify global IP stack configuration.</i> | see page 649 |
| <i>ip debug clearstats</i> | <i>Flush statistics.</i> | see page 650 |
| <i>ip debug httpprobe</i> | <i>Send HTTP probe to measure the round trip time taken to connect and access</i> | see page 651 |
| <i>ip debug nbflush</i> | <i>Deletes all neighbours</i> | see page 652 |
| <i>ip debug sendto</i> | <i>Send UDP packets.</i> | see page 653 |
| <i>ip debug stats</i> | <i>Display statistics.</i> | see page 654 |
| <i>ip debug traceconfig</i> | <i>Display/Modify IP stack trace configuration.</i> | see page 655 |

| | | |
|-------------------------------------|--|--------------|
| <i>ip flush</i> | <i>Flush all static IP parameters. Dynamic info (e.g. from PPP links) remains.</i> | see page 656 |
| <i>ip ifadd</i> | <i>Create an IP interface.</i> | see page 657 |
| <i>ip ifattach</i> | <i>Attach an IP interface.</i> | see page 658 |
| <i>ip ifconfig</i> | <i>Modify an IP interface configuration.</i> | see page 659 |
| <i>ip ifdelete</i> | <i>Delete an IP interface.</i> | see page 661 |
| <i>ip ifdetach</i> | <i>Detach an IP interface.</i> | see page 662 |
| <i>ip iflist</i> | <i>Display all IP interfaces.</i> | see page 663 |
| <i>ip ifwait</i> | <i>Wait for a status change of an IP interface.</i> | see page 664 |
| <i>ip ipadd</i> | <i>Assign an IP address to an IP interface.</i> | see page 665 |
| <i>ip ipconfig</i> | <i>Modify an IP address configuration.</i> | see page 666 |
| <i>ip ipdelete</i> | <i>Remove an IP address from an IP interface.</i> | see page 667 |
| <i>ip iplist</i> | <i>Display all configured IP addresses.</i> | see page 668 |
| <i>ip mcast flush</i> | <i>Flush the multicast routing table.</i> | see page 669 |
| <i>ip mcast rtadd</i> | <i>Add a multicast route to the multicast routing table.</i> | see page 670 |
| <i>ip mcast rtdelete</i> | <i>Delete a multicast route from the multicast routing table.</i> | see page 671 |
| <i>ip mcast rtlist</i> | <i>Display the multicast routing table.</i> | see page 672 |
| <i>ip nbdelete</i> | <i>Delete a neighbour</i> | see page 673 |
| <i>ip nblist</i> | <i>List the neighbours</i> | see page 674 |
| <i>ip nbset</i> | <i>Add/modify a neighbour</i> | see page 675 |
| <i>ip rt6advd config</i> | <i>RTADVD configuration.</i> | see page 676 |
| <i>ip rt6advd cpdlist</i> | <i>List cache learned prefix delegations.</i> | see page 677 |
| <i>ip rt6advd debug clear</i> | <i>Clear RTADVD statistics</i> | see page 678 |
| <i>ip rt6advd debug stats</i> | <i>Print RTADVD statistics</i> | see page 679 |
| <i>ip rt6advd debug traceconfig</i> | <i>Modify RTADVD trace configuration</i> | see page 680 |
| <i>ip rt6advd ifadd</i> | <i>Add an advertising interface.</i> | see page 681 |
| <i>ip rt6advd ifattach</i> | <i>Attach an advertising interface.</i> | see page 682 |
| <i>ip rt6advd ifconfig</i> | <i>Configure an advertising interface.</i> | see page 683 |
| <i>ip rt6advd ifdelete</i> | <i>Delete an advertising interface.</i> | see page 684 |
| <i>ip rt6advd ifdetach</i> | <i>Detach an advertising interface.</i> | see page 685 |

| | | |
|---------------------------------------|--|--------------|
| <i>ip rt6advd iflist</i> | <i>List advertising interfaces.</i> | see page 686 |
| <i>ip rt6advd option dns add</i> | <i>Add a recursive DNS server.</i> | see page 687 |
| <i>ip rt6advd option dns delete</i> | <i>Delete a recursive DNS server.</i> | see page 688 |
| <i>ip rt6advd option dns list</i> | <i>List recursive DNS server information.</i> | see page 689 |
| <i>ip rt6advd option dns sladd</i> | <i>Add a DNS search list domain.</i> | see page 690 |
| <i>ip rt6advd option dns sldelete</i> | <i>Delete a DNS search list domain.</i> | see page 691 |
| <i>ip rt6advd option dns sllist</i> | <i>List DNS search list information.</i> | see page 692 |
| <i>ip rt6advd option route add</i> | <i>Add a route information option prefix.</i> | see page 693 |
| <i>ip rt6advd option route delete</i> | <i>Delete a route information option prefix.</i> | see page 694 |
| <i>ip rt6advd option route list</i> | <i>List route information option prefixes.</i> | see page 695 |
| <i>ip rt6advd pdadd</i> | <i>Add a prefix delegation instantiation.</i> | see page 696 |
| <i>ip rt6advd pddelete</i> | <i>Delete a prefix delegation instantiation.</i> | see page 697 |
| <i>ip rt6advd pdlist</i> | <i>List prefix delegations.</i> | see page 698 |
| <i>ip rt6advd pfxadd</i> | <i>Add a prefix to advertise.</i> | see page 699 |
| <i>ip rt6advd pfxdelete</i> | <i>Delete an advertised prefix.</i> | see page 700 |
| <i>ip rt6advd pfxlist</i> | <i>List advertised prefixes.</i> | see page 701 |
| <i>ip rtadd</i> | <i>Add a route to the routing table.</i> | see page 702 |
| <i>ip rtconfig</i> | <i>Modify a route of the routing table.</i> | see page 703 |
| <i>ip rtdelete</i> | <i>Delete a route from the routing table.</i> | see page 704 |
| <i>ip rtlist</i> | <i>Display the routing table.</i> | see page 705 |

ip aip config

Display/Modify AIP configuration.

SYNTAX:

```
ip aip config [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|---------------------------------|----------|
| state | Enable/disable IP acceleration. | OPTIONAL |
|-------|---------------------------------|----------|

ip aip hw config

Display/Modify AIP HW configuration.

SYNTAX:

```
ip aip hw config [state = <{disabled|enabled}>]
                 [policy = <{manual|automatic}>]
                 [min-priority = <number{0-255}>]
                 [threshold = <number{10-100000}>]
                 [ignore-priority = <{no|yes}>]
                 [replace-inhw = <{no|yes}>]
                 [replace-equal-prio = <{no|yes}>]
```

where:

| | | |
|--------------------|---|----------|
| state | Enable/disable hardware IP acceleration. | OPTIONAL |
| policy | Stream selection algorithm. | OPTIONAL |
| min-priority | Minimal priority for a stream to be eligible for HW acceleration. | OPTIONAL |
| threshold | Minimal packetrate for a stream to be eligible for HW acceleration. | OPTIONAL |
| ignore-priority | Ignore stream priority when sorting for HW eligibility. | OPTIONAL |
| replace-inhw | Replace streams already in HW. | OPTIONAL |
| replace-equal-prio | Replace if equal priority (higher packetrate). | OPTIONAL |

ip aip hw fap

Display/Modify FAP configuration.

SYNTAX:

```
ip aip hw fap [prio = <number{0-255}>]
```

where:

| | | |
|------|--|----------|
| prio | Stream priority threshold wrt. Ingress Qos | OPTIONAL |
|------|--|----------|

ip aip hw flush

Reset AIP HW configuration.

ip aip hw stats

Display statistics about AIP HW usage.

ip aip list

Display AIP session list.

ip aip stats

Display AIP session/intf statistics

ip arpadd

Add an entry to the ARP cache of a broadcast IP interface.

SYNTAX:

```
ip arpadd                intf = <{LocalNetwork}>
                        ip = <ip-range>
                        [hwaddr = <hardware-address>]
```

where:

| | | |
|--------|---|----------|
| intf | The IP interface name. | REQUIRED |
| ip | The IP address [range] of the entry to add. | REQUIRED |
| hwaddr | The hardware address (e.g. Ethernet MAC address) of the entry to add. | OPTIONAL |

ip arpdelete

Delete an ARP entry.

SYNTAX:

```
ip arpdelete          intf = <{LocalNetwork}>
                    ip = <ip-range>
                    [hwaddr = <hardware-address>]
```

where:

| | | |
|--------|--|----------|
| intf | The IP interface name. | REQUIRED |
| ip | The IP address [range] of the entry to delete. | REQUIRED |
| hwaddr | The hardware address (e.g. Ethernet MAC address) of the entry to delete. | OPTIONAL |

ip arplist

Display the ARP cache.

ip auto debug traceconfig

Modify autoIP trace configuration

SYNTAX:

```
ip auto debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|---------------------------------|----------|
| state | Enable/Disable verbose logging. | OPTIONAL |
|-------|---------------------------------|----------|

ip auto flush

Flushes autoIP interfaces.

ip auto ifadd

Creates a new autoIP interface.

SYNTAX:

```
ip auto ifadd                intf = <{LocalNetwork}>  
                             [addr = <ipv4-address>]
```

where:

| | | |
|------|--|----------|
| intf | The name of the IP interface for which a link-local address has to be allocated. | REQUIRED |
| addr | The preferred link-local IP address. | OPTIONAL |

ip auto ifattach

Select and assign a link-local address to an autoIP interface.

SYNTAX:

```
ip auto ifattach          intf = <>
```

where:

| | | |
|------|-----------------------------------|----------|
| intf | The name of the autoIP interface. | REQUIRED |
|------|-----------------------------------|----------|

ip auto ifconfig

Configures an autoIP interface.

SYNTAX:

```
ip auto ifconfig          intf = <>
                          [addr = <ipv4-address>]
                          [poolstart = <ipv4-address>]
                          [poolend = <ipv4-address>]
                          [netmask = <ip-mask(dotted or cidr)>]
                          [claim = <number{0-65535}>]
                          [defence = <number{0-65535}>]
                          [probe = <number{0-65535}>]
                          [interval = <number{1-65535}>]
```

where:

| | | |
|-----------|--|----------|
| intf | The name of the autoIP interface to configure. | REQUIRED |
| addr | The preferred link-local IP address. | OPTIONAL |
| poolstart | The start IP address of the link-local address pool. | OPTIONAL |
| poolend | The end IP address of the link-local address pool. | OPTIONAL |
| netmask | The netmask of the link-local IP address pool. | OPTIONAL |
| claim | The number of link-local address selection retries before giving up. | OPTIONAL |
| defence | The number of times the link-local address is defended before releasing the address. | OPTIONAL |
| probe | The number of ARP probes to be sent before accepting a link-local address. | OPTIONAL |
| interval | The time interval between two ARP probe transmissions. | OPTIONAL |

ip auto ifdelete

Deletes an existing autoIP interface.

SYNTAX:

```
ip auto ifdelete          intf = <>
```

where:

| | | |
|------|-----------------------------------|----------|
| intf | The name of the autoIP interface. | REQUIRED |
|------|-----------------------------------|----------|

ip auto ifdetach

Release the link-local address for the given autoIP interface.

SYNTAX:

```
ip auto ifdetach          intf = <>
```

where:

| | | |
|------|-----------------------------------|----------|
| intf | The name of the autoIP interface. | REQUIRED |
|------|-----------------------------------|----------|

ip auto iflist

Shows the autoIP interfaces.

SYNTAX:

```
ip auto iflist [intf = <>]
```

where:

| | | |
|------|---------------------------------|----------|
| intf | The name of a autoIP interface. | OPTIONAL |
|------|---------------------------------|----------|

ip clearifstats

Flush IP interface statistics.

SYNTAX:

```
ip clearifstats [intf = <{loop|Internet|LocalNetwork}>]
```

where:

| | | |
|------|--|----------|
| intf | Interface for which IP statistics must be cleared (when missing, will clear statistics for ALL IP interfaces). | OPTIONAL |
|------|--|----------|

ip config

Display/Modify global IP stack configuration.

SYNTAX:

```
ip config [forwarding = <{disabled|enabled}>]
          [redirects = <{disabled|enabled}>]
          [checkoptions = <{disabled|enabled|
          transparent}>]
          [netbroadcasts = <{disabled|enabled}>]
          [randomdatagramids = <{disabled|enabled}>]
          [ttl = <number{0-255}>]
          [fraglimit = <number{1-1024}>]
          [defragmode = <{disabled|enabled}>]
          [addrcheck = <{off|own|static|dynamic}>]
          [mssclamping = <{disabled|enabled}>]
          [natloopback = <{disabled|enabled}>]
          [arpcachetimeout = <number{10-7200}>]
          [arpclass = <{0|1|2|3|4|5|6|7|8|9|10|11|12|13|
          14|15}>]
```

where:

| | | |
|-------------------|---|----------|
| forwarding | Disable/Enable IP routing functionality. | OPTIONAL |
| redirects | Disable/Enable sending of ICMP redirect messages. | OPTIONAL |
| checkoptions | Disallow/Allow packets with IP options. | OPTIONAL |
| netbroadcasts | Disallow/Allow net directed broadcasts. | OPTIONAL |
| randomdatagramids | Disable/Enable random datagram IDs for packets generated locally. | OPTIONAL |
| ttl | Set the default time-to-live for locally generated IP packets. | OPTIONAL |
| fraglimit | Set the maximum number of IP fragments waiting for completion. (Avoids buffer depletion). | OPTIONAL |
| defragmode | Disallow/Allow defragmenting IP fragments. | OPTIONAL |
| addrcheck | Sets the level of ip address checks. | OPTIONAL |
| mssclamping | Disable/Enable mss clamping for low mtu interfaces. | OPTIONAL |
| natloopback | Disable/Enable NAT loopback. | OPTIONAL |
| arpcachetimeout | Set the global ARP cache timeout. | OPTIONAL |
| arpclass | The prio class of the ARP packets. | OPTIONAL |

ip debug clearstats

Flush statistics.

SYNTAX:

```
ip debug clearstats [proto = <{ip|ipv6|udp|tcp|icmp|icmpv6}>]
```

where:

| | | |
|-------|---|----------|
| proto | The protocol of which statistics should be cleared (when missing, ALL protocol statistics will cleared) . | OPTIONAL |
|-------|---|----------|

ip debug httpprobe

Send HTTP probe to measure the round trip time taken to connect and access

SYNTAX:

```
ip debug httpprobe          url = <string>
                             [version = <{1.0|1.1}>]
```

where:

| | | |
|---------|---|----------|
| url | The Uniform Resource Locator identifying the HTTP server. | REQUIRED |
| version | The version of the HTTP server. | OPTIONAL |

ip debug nbflush

Deletes all neighbours

ip debug sendto

Send UDP packets.

SYNTAX:

```
ip debug sendto          addr = <ip-address>
                        [count = <number{1-1000000}>]
                        [size = <number{0-20000}>]
                        [interval = <number{1-1000000}>]
                        [listen = <{disabled|enabled}>]
                        [dffield = <{disabled|enabled}>]
                        [srcaddr = <ip-address>]
                        [srcport = <number{1-65535}>]
                        dstport = <number{1-65535}>
                        [dstintf = <{loop|Internet|LocalNetwork}>]
```

where:

| | | |
|----------|---|----------|
| addr | The destination IP address. | REQUIRED |
| count | The number of datagrams to send. | OPTIONAL |
| size | The size of the datagram. | OPTIONAL |
| interval | The interval in milliseconds between datagrams. | OPTIONAL |
| listen | Don't send, just listen for incoming datagrams. | OPTIONAL |
| dffield | Enables setting of the don't fragment flag in the IP headers of the ping packet(s). | OPTIONAL |
| srcaddr | The IP source address to use. | OPTIONAL |
| srcport | The UDP source port number to use. | OPTIONAL |
| dstport | The UDP destination port number to send to. | REQUIRED |
| dstintf | The IP interface name. | OPTIONAL |

ip debug stats

Display statistics.

SYNTAX:

```
ip debug stats proto = <{ip|ipv6|udp|tcp|icmp|icmpv6}>
```

where:

| | | |
|-------|---|----------|
| proto | The protocol for which to display the statistics. | REQUIRED |
|-------|---|----------|

ip debug traceconfig

Display/Modify IP stack trace configuration.

SYNTAX:

```
ip debug traceconfig [state = <{disabled|enabled}>]
                    [input = <{none|label|-telnet|-host|-
                    broadcast|all}>]
                    [forward = <{none|label|-telnet|-host|-
                    broadcast|all}>]
                    [output = <{none|label|-telnet|-host|-
                    broadcast|all}>]
                    [drop = <{none|label|-telnet|-host|-broadcast|
                    all}>]
                    [mode = <{line|dump}>]
                    [proto = <{ipv4|ipv6}>]
                    [arp = <{none|all}>]
```

where:

| | | |
|---------|--|----------|
| state | Enable/Disable all packet traces. | OPTIONAL |
| input | Define the packets that will be traced. | OPTIONAL |
| forward | Define the packets that will be traced. | OPTIONAL |
| output | Define the packets that will be traced. | OPTIONAL |
| drop | Define the packet drops that will be traced. | OPTIONAL |
| mode | Packet dump method. | OPTIONAL |
| proto | The protocol family. | OPTIONAL |
| arp | Define the arp packets that will be traced. | OPTIONAL |

ip flush

Flush all static IP parameters. Dynamic info (e.g. from PPP links) remains.

ip ifadd

Create an IP interface.

SYNTAX:

```
ip ifadd                               intf = <string>  
                                       dest = <{ethoa_8_35|eth_ge}>
```

where:

| | | |
|------|----------------------------|----------|
| intf | An IP interface name. | REQUIRED |
| dest | An network interface name. | REQUIRED |

ip ifattach

Attach an IP interface.

SYNTAX:

```
ip ifattach intf = <{}>
```

where:

| | | |
|------|-----------------------|----------|
| intf | An IP interface name. | REQUIRED |
|------|-----------------------|----------|

ip ifconfig

Modify an IP interface configuration.

SYNTAX:

```
ip ifconfig          intf = <{loop|Internet|LocalNetwork}>
                    [mtu = <number{68-65535}>]
                    [hwaddr = <hardware-address>]
                    [linksensing = <{disabled|enabled}>]
                    [group = <{wan|local|lan|tunnel|dmz|guest} or
                    number>]
                    [mcastpromisc = <{disabled|enabled}>]
                    [symmetric = <{disabled|enabled}>]
                    [forwarding = <{disabled|enabled}>]
                    [acceptredir = <{disabled|enabled}>]
                    [rpfilter = <{disabled|enabled}>]
                    [ipv4 = <{disabled|enabled}>]
                    [arpcachetimeout = <number{0-7200}>]
                    [arpprobemode = <{unicast|broadcast}>]
                    [primary = <{disabled|enabled}>]
                    [ipv6 = <{disabled|enabled}>]
                    [curhoplimit = <number{0-255}>]
                    [dadtransmits = <number{0-100}>]
                    [retranstimer = <number{1000-5000}>]
                    [basereachabletime = <number{5000-3600000}>]
                    [gctimer = <number{300000-86400000}>]
                    [acceptra = <{disabled|enabled}>]
                    [autoconf = <{disabled|enabled}>]
```

where:

| | | |
|--------------|---|----------|
| intf | An IP interface name. | REQUIRED |
| mtu | The maximum packet size (including IP header) to use on this interface. | OPTIONAL |
| hwaddr | The hardware address (e.g. Ethernet MAC address) of this interface. | OPTIONAL |
| linksensing | The IP interface's awareness of link state transitions. | OPTIONAL |
| group | The group this interface belongs to. Can be used by e.g. firewalling. | OPTIONAL |
| mcastpromisc | Make the IP interface multicast promiscuous. | OPTIONAL |
| symmetric | The routing mode of the IP interface. | OPTIONAL |
| forwarding | The forwarding state of the interface. | OPTIONAL |
| acceptredir | Accepts redirect messages. | OPTIONAL |
| rpfilter | Enables reverse path filtering on received packets. | OPTIONAL |

| | | |
|-------------------|---|----------|
| ipv4 | IPv4 state on this interface. | OPTIONAL |
| arpcachetimeout | Set the ARP cache timeout to be used for this interface (0 = use global ARP cache timeout). | OPTIONAL |
| arpprobemode | The ARP probe mode of the interface. | OPTIONAL |
| primary | Make the IP interface the primary interface. | OPTIONAL |
| ipv6 | IPv6 state on this interface. | OPTIONAL |
| curhoplimit | The default hop limit used for packets sent by local host. | OPTIONAL |
| dadtransmits | The number of duplicate address detection transmits. | OPTIONAL |
| retranstimer | The delay (in milliseconds) between duplicate address detection transmits. | OPTIONAL |
| basereachabletime | The base value (in milliseconds) used for computing the random reachabletime value. | OPTIONAL |
| gctimer | The time interval (in milliseconds) after which staled neighbors are removed. | OPTIONAL |
| acceptra | Accepts router advertisement messages. | OPTIONAL |
| autoconf | Enable stateless address autoconfiguration. | OPTIONAL |

ip ifdelete

Delete an IP interface.

SYNTAX:

```
ip ifdelete          intf = <{LocalNetwork}>
```

where:

| | | |
|------|-----------------------|----------|
| intf | An IP interface name. | REQUIRED |
|------|-----------------------|----------|

ip ifdetach

Detach an IP interface.

SYNTAX:

```
ip ifdetach          intf = <{loop|LocalNetwork}>
```

where:

| | | |
|------|-----------------------|----------|
| intf | An IP interface name. | REQUIRED |
|------|-----------------------|----------|

ip iflist

Display all IP interfaces.

SYNTAX:

```
ip iflist [intf = <{loop|Internet|LocalNetwork}>]
          [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|------------------------|----------|
| intf | The IP interface name. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

ip ifwait

Wait for a status change of an IP interface.

SYNTAX:

```
ip ifwait          intf = <{loop|Internet|LocalNetwork}>
                  proto = <{ipv4|ipv6}>
                  [timeout = <number{1-600000}>]
                  [adminstatus = <{down|up}>]
                  [operstatus = <{down|up}>]
                  [linkstatus = <{down|up}>]
```

where:

| | | |
|-------------|--|----------|
| intf | An IP interface name. | REQUIRED |
| proto | The protocol family. | REQUIRED |
| timeout | The timeout in seconds. | OPTIONAL |
| adminstatus | The administrative state of the interface. | OPTIONAL |
| operstatus | The operational state of the interface. | OPTIONAL |
| linkstatus | The link state of the interface. | OPTIONAL |

ip ipadd

Assign an IP address to an IP interface.

SYNTAX:

```
ip ipadd          intf = <{loop|Internet|LocalNetwork}>
                  addr = <ip-prefix>
                  [pointopoint = <ipv4-address>]
                  [addroute = <{disabled|enabled}>]
                  [anycast = <{disabled|enabled}>]
                  [pltime = <number>]
                  [vltime = <number>]
```

where:

| | | |
|-------------|--|----------|
| intf | The IP interface name. | REQUIRED |
| addr | The new IP address to add. | REQUIRED |
| pointopoint | The remote address in case of a point-to-point link. | OPTIONAL |
| addroute | Add typical net/subnet routes automatically. | OPTIONAL |
| anycast | The IPv6 anycast address | OPTIONAL |
| pltime | The IPv6 address preferred lifetime | OPTIONAL |
| vltime | The IPv6 address valid lifetime | OPTIONAL |

ip ipconfig

Modify an IP address configuration.

SYNTAX:

```
ip ipconfig                addr = <ipv4-address>  
                           [preferred = <{disabled|enabled}>]  
                           [primary = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| addr | The IP address to configure. | REQUIRED |
| preferred | Make IP address the preferred address for that subnet. | OPTIONAL |
| primary | Make IP address the primary address for the interface. | OPTIONAL |

ip ipdelete

Remove an IP address from an IP interface.

SYNTAX:

```
ip ipdelete          addr = <ip-prefix>  
                    intf = <{loop|Internet|LocalNetwork}>
```

where:

| | | |
|------|-------------------------------|----------|
| addr | The new IP address to delete. | REQUIRED |
| intf | The IP interface name. | REQUIRED |

ip iplist

Display all configured IP addresses.

SYNTAX:

```
ip iplist [expand = <{disabled|enabled}>]  
         [proto = <{ipv4|ipv6}>]
```

where:

| | | |
|--------|----------------------|----------|
| expand | Expanded listing. | OPTIONAL |
| proto | The protocol family. | OPTIONAL |

ip mcast flush

Flush the multicast routing table.

ip mcast rtadd

Add a multicast route to the multicast routing table.

SYNTAX:

```
ip mcast rtadd          srcintf = <{loop|Internet|LocalNetwork}>
                        [src = <ip-address>]
                        grp = <ip-address>
                        dstintf = <{loop|Internet|LocalNetwork}>
                        [ttl = <number{1-255}>]
                        [ttlincr = <{disabled|enabled}>]
```

where:

| | | |
|---------|---|----------|
| srcintf | The source IP interface. | REQUIRED |
| src | The source IP address. | OPTIONAL |
| grp | The multicast group IP address. | REQUIRED |
| dstintf | The destination IP interface. | REQUIRED |
| ttl | The time-to-live for that destination IP interface. | OPTIONAL |
| ttlincr | Increment TTL before packet is send. | OPTIONAL |

ip mcast rtdelete

Delete a multicast route from the multicast routing table.

SYNTAX:

```
ip mcast rtdelete          srcintf = <{loop|Internet|LocalNetwork}>
                           [src = <ip-address>]
                           grp = <ip-address>
                           dstintf = <{loop|Internet|LocalNetwork}>
```

where:

| | | |
|---------|---------------------------------|----------|
| srcintf | The source IP interface. | REQUIRED |
| src | The source IP address. | OPTIONAL |
| grp | The multicast group IP address. | REQUIRED |
| dstintf | The destination IP interface. | REQUIRED |

ip mcast rtlist

Display the multicast routing table.

SYNTAX:

```
ip mcast rtlist [expand = <{disabled|enabled}>]
                [proto = <{ipv4|ipv6}>]
```

where:

| | | |
|--------|----------------------|----------|
| expand | Expanded listing. | OPTIONAL |
| proto | The protocol family. | OPTIONAL |

ip nbdelete

Delete a neighbour

SYNTAX:

```
ip nbdelete                               intf = <{loop|Internet|LocalNetwork}>
                                           ip = <ipv6-address>
```

where:

| | | |
|------|----------------------------------|----------|
| intf | The IP interface name. | REQUIRED |
| ip | The IP address of the neighbour. | REQUIRED |

ip nblast

List the neighbours

SYNTAX:

```
ip nblast [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

ip nbset

Add/modify a neighbour

SYNTAX:

```
ip nbset          intf = <{loop|Internet|LocalNetwork}>
                  ip = <ipv6-address>
                  [flags = <[+/-]flag[+/-flag...]{proxy router
                  static autoprobe}>]
                  [hwaddr = <hardware-address>]
```

where:

| | | |
|--------|--|----------|
| intf | The IP interface name. | REQUIRED |
| ip | The IP address of the neighbour. | REQUIRED |
| flags | Enabled flags of the neighbour. | OPTIONAL |
| hwaddr | The link layer address (e.g. Ethernet MAC address) of the neighbour. | OPTIONAL |

ip rt6advd config

RTADV configuration.

SYNTAX:

```
ip rt6advd config [prevent-forwarding-loop = <{blackhole|
reject}>]
[global-id = <{auto|disable|hexnumber}>]
[ulavltime = <number>]
[ulapltime = <number>]
```

where:

| | | |
|-------------------------|---|----------|
| prevent-forwarding-loop | Select method to prevent forwarding loops for the aggregated route. Just discard packets (blackhole) or sent ICMPv6 destination unreachable message (reject). | OPTIONAL |
| global-id | Unique Local Address GlobalID | OPTIONAL |
| ulavltime | Valid lifetime to advertise for ULA. | OPTIONAL |
| ulapltime | Preferred lifetime to advertise for ULA. | OPTIONAL |

ip rt6advd cpdlist

List cache learned prefix delegations.

ip rt6advd debug clear

Clear RTADV statistics

ip rt6advd debug stats

Print RTADVd statistics

ip rt6advd debug traceconfig

Modify RTADVd trace configuration

SYNTAX:

```
ip rt6advd debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

ip rt6advd ifadd

Add an advertising interface.

SYNTAX:

```
ip rt6advd ifadd          intf = <{loop|Internet}>
```

where:

| | | |
|------|-------------------------|----------|
| intf | An IPv6 interface name. | REQUIRED |
|------|-------------------------|----------|

ip rt6advd ifattach

Attach an advertising interface.

SYNTAX:

```
ip rt6advd ifattach          intf = <{}>
```

where:

| | | |
|------|-------------------------|----------|
| intf | An IPv6 interface name. | REQUIRED |
|------|-------------------------|----------|

ip rt6advd ifconfig

Configure an advertising interface.

SYNTAX:

```
ip rt6advd ifconfig          intf = <{}>
                             [maxinterval = <number{4-1800}>]
                             [mininterval = <number{3-1350}>]
                             [mflag = <{disabled|enabled}>]
                             [oflag = <{disabled|enabled}>]
                             [preference = <{low|medium|high}>]
                             [linkmtu = <number{1280-65535}>]
                             [reachabletime = <number>]
                             [retranstimer = <number>]
                             [curhoplimit = <number{0-255}>]
                             [deflifetime = <number{0-65535}>]
```

where:

| intf | Instance name. | REQUIRED |
|---------------|---|----------|
| maxinterval | Maximum time between sending advertisements (seconds) | OPTIONAL |
| mininterval | Minimum time between sending advertisements (seconds) | OPTIONAL |
| mflag | Managed address configuration. It indicates to hosts that addresses are available via DHCPv6. | OPTIONAL |
| oflag | Other configuration available. It indicates to hosts that other configuration information is available via DHCPv6 | OPTIONAL |
| preference | Default router preference. | OPTIONAL |
| linkmtu | The Maximum Transmission Unit size for this link. | OPTIONAL |
| reachabletime | Reachable Time (0 = unspecified, milliseconds) | OPTIONAL |
| retranstimer | Time between NS retransmissions (milliseconds) | OPTIONAL |
| curhoplimit | Current diameter of the Internet (hops) | OPTIONAL |
| deflifetime | Router Lifetime (seconds) | OPTIONAL |

ip rt6advd ifdelete

Delete an advertising interface.

SYNTAX:

```
ip rt6advd ifdelete          intf = <{LocalNetwork}>
```

where:

| | | |
|------|-------------------------|----------|
| intf | An IPv6 interface name. | REQUIRED |
|------|-------------------------|----------|

ip rt6advd ifdetach

Detach an advertising interface.

SYNTAX:

```
ip rt6advd ifdetach          intf = <{LocalNetwork}>
```

where:

| | | |
|------|-------------------------|----------|
| intf | An IPv6 interface name. | REQUIRED |
|------|-------------------------|----------|

ip rt6advd iflist

List advertising interfaces.

ip rt6advd option dns add

Add a recursive DNS server.

SYNTAX:

```
ip rt6advd option dns add      intf = <{LocalNetwork}>
                                idx = <number{0-15}>
                                dns = <ipv6-address>
                                [lifetime = <number>]
```

where:

| | | |
|----------|--|----------|
| intf | Advertising interface. | REQUIRED |
| idx | The sequence ordering number of this entry. | REQUIRED |
| dns | Recursive DNS server address. | REQUIRED |
| lifetime | The maximum lifetime the dns server maybe be used for name resolution. | OPTIONAL |

ip rt6advd option dns delete

Delete a recursive DNS server.

SYNTAX:

```
ip rt6advd option dns delete    intf = <{LocalNetwork}>
                                idx = <number{0-15}>
```

where:

| | | |
|------|---|----------|
| intf | Advertising interface. | REQUIRED |
| idx | The sequence ordering number of this entry. | REQUIRED |

ip rt6advd option dns list

List recursive DNS server information.

SYNTAX:

```
ip rt6advd option dns list [intf = <{LocalNetwork}>]
```

where:

| | | |
|------|------------------------|----------|
| intf | Advertising interface. | OPTIONAL |
|------|------------------------|----------|

ip rt6advd option dns sladd

Add a DNS search list domain.

SYNTAX:

```
ip rt6advd option dns sladd      intf = <{LocalNetwork}>
                                   idx = <number{0-15}>
                                   domain = <string>
                                   [lifetime = <number>]
```

where:

| | | |
|----------|---|----------|
| intf | Advertising interface. | REQUIRED |
| idx | The sequence ordering number of this entry. | REQUIRED |
| domain | Domain name. | REQUIRED |
| lifetime | The maximum lifetime the entry maybe be used for name resolution. | OPTIONAL |

ip rt6advd option dns sdelete

Delete a DNS search list domain.

SYNTAX:

```
ip rt6advd option dns sdelete intf = <{LocalNetwork}>
                               idx = <number{0-15}>
```

where:

| | | |
|------|---|----------|
| intf | Advertising interface. | REQUIRED |
| idx | The sequence ordering number of this entry. | REQUIRED |

ip rt6advd option dns sllist

List DNS search list information.

SYNTAX:

```
ip rt6advd option dns sllist [intf = <{LocalNetwork}>]
```

where:

| | | |
|------|------------------------|----------|
| intf | Advertising interface. | OPTIONAL |
|------|------------------------|----------|

ip rt6advd option route add

Add a route information option prefix.

SYNTAX:

```
ip rt6advd option route add    intf = <{LocalNetwork}>
                                prefix = <ipv6-mask>
                                [preference = <{low|medium|high}>]
                                [lifetime = <number>]
```

where:

| | | |
|------------|------------------------------|----------|
| intf | Advertising interface. | REQUIRED |
| prefix | Route prefix to advertise. | REQUIRED |
| preference | Route preference. | OPTIONAL |
| lifetime | Route lifetime to advertise. | OPTIONAL |

ip rt6advd option route delete

Delete a route information option prefix.

SYNTAX:

```
ip rt6advd option route delete intf = <{LocalNetwork}>
                                prefix = <ipv6-mask>
```

where:

| | | |
|--------|----------------------------|----------|
| intf | Advertising interface. | REQUIRED |
| prefix | Route prefix to advertise. | REQUIRED |

ip rt6advd option route list

List route information option prefixes.

SYNTAX:

```
ip rt6advd option route list [intf = <{LocalNetwork}>]
```

where:

| | | |
|------|------------------------|----------|
| intf | Advertising interface. | OPTIONAL |
|------|------------------------|----------|

ip rt6advd pdadd

Add a prefix delegation instantiation.

SYNTAX:

```
ip rt6advd pdadd          intf = <{LocalNetwork}>
                           subnet-id = <ipv6-mask>
                           [interface-id = <ipv6 interface-id or
                             'slaac'>]
                           [origin = <{loop|Internet|LocalNetwork}>]
                           [types = <[+/-]flag[+/-flag...]{dhcp 6rd 6to4
                             ula}>]
                           [aflag = <{enabled|disabled}>]
                           [lflag = <{enabled|disabled}>]
```

where:

| | | |
|--------------|---|----------|
| intf | Advertising interface. | REQUIRED |
| subnet-id | Subnet bits and subnet mask to be appended to delegated prefix. | REQUIRED |
| interface-id | Interface bits to be appended to delegated prefix. | OPTIONAL |
| origin | Origin interface on which the delegation will be received. | OPTIONAL |
| types | Allowed origin types for template matching (all types are selected by default). | OPTIONAL |
| aflag | Autonomous flag (enabled by default). | OPTIONAL |
| lflag | On-link flag (enabled by default). | OPTIONAL |

ip rt6advd pddelete

Delete a prefix delegation instantiation.

SYNTAX:

```
ip rt6advd pddelete          subnet-id = <ipv6-mask>
                              [origin = <{loop|Internet|LocalNetwork}>]
                              [types = <[+/-]flag[+/-flag...]{dhcp 6rd 6to4
                              ula}>]
```

where:

| | | |
|-----------|---|----------|
| subnet-id | Subnet bits and subnet mask to be appended to delegated prefix. | REQUIRED |
| origin | Origin interface on which the delegation was received. | OPTIONAL |
| types | Allowed origin types for template matching. | OPTIONAL |

ip rt6advd pdlist

List prefix delegations.

SYNTAX:

```
ip rt6advd pdlist [intf = <{LocalNetwork}>]
```

where:

| | | |
|------|------------------------|----------|
| intf | Advertising interface. | OPTIONAL |
|------|------------------------|----------|

ip rt6advd pfxadd

Add a prefix to advertise.

SYNTAX:

```
ip rt6advd pfxadd          intf = <{LocalNetwork}>
                           [subnet-id = <ipv6-mask>]
                           [interface-id = <ipv6 interface-id or
                           'slaac'>]
                           [vltime = <number>]
                           [pltime = <number>]
                           [aflag = <{enabled|disabled}>]
                           [lflag = <{enabled|disabled}>]
```

where:

| | | |
|--------------|--|----------|
| intf | Advertising interface. | REQUIRED |
| subnet-id | Subnet bits and subnet mask of prefix. | OPTIONAL |
| interface-id | Interface bits of prefix. | OPTIONAL |
| vltime | Valid lifetime to advertise. | OPTIONAL |
| pltime | Preferred lifetime to advertise. | OPTIONAL |
| aflag | Autonomous flag (enabled by default). | OPTIONAL |
| lflag | On-link flag (enabled by default). | OPTIONAL |

ip rt6advd pfxdelete

Delete an advertised prefix.

SYNTAX:

```
ip rt6advd pfxdelete [subnet-id = <ipv6-mask>]
```

where:

| | | |
|-----------|--|----------|
| subnet-id | Subnet bits and subnet mask of prefix. | OPTIONAL |
|-----------|--|----------|

ip rt6advd pfxlist

List advertised prefixes.

SYNTAX:

```
ip rt6advd pfxlist [intf = <{LocalNetwork}>]
```

where:

| | | |
|------|------------------------|----------|
| intf | Advertising interface. | OPTIONAL |
|------|------------------------|----------|

ip rtadd

Add a route to the routing table.

SYNTAX:

```
ip rtadd                dst = <ip-prefix>
                        [label = <{None|Interactive|Local|Management|
                        SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
                        default}>]
                        [gateway = <ip-address>]
                        [intf = <{loop|Internet|LocalNetwork}>]
                        [srcintf = <{loop|Internet|LocalNetwork}>]
                        [static = <{enabled|disabled}>]
                        [status = <{up|down}>]
                        [type = <{|blackhole|reject}>]
                        [metric = <number{0-255}>]
```

where:

| | | |
|---------|---|----------|
| dst | The destination IP address(es) using this route. | REQUIRED |
| label | The name of a label. | OPTIONAL |
| gateway | The IP address of the next hop (direct connected gateway or extended route) | OPTIONAL |
| intf | Only for special interface routes : the outgoing IP interface name. | OPTIONAL |
| srcintf | Use this interface for source address selection. | OPTIONAL |
| static | Route persistency: static or dynamic (note that not all routes can be changed). | OPTIONAL |
| status | The administrative state of the route. | OPTIONAL |
| type | The type for this route | OPTIONAL |
| metric | The metric for this route (weight factor). | OPTIONAL |

ip rtconfig

Modify a route of the routing table.

SYNTAX:

```
ip rtconfig          dst = <ip-prefix>
                    [label = <{None|Interactive|Local|Management|
                    SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
                    default}>]
                    [gateway = <ip-address>]
                    [intf = <{loop|Internet|LocalNetwork}>]
                    [srcintf = <{loop|Internet|LocalNetwork}>]
                    [static = <{enabled|disabled}>]
                    [status = <{up|down}>]
                    [type = <{|blackhole|reject}>]
                    [metric = <number{0-255}>]
```

where:

| | | |
|---------|---|----------|
| dst | The destination IP address(es) using this route. | REQUIRED |
| label | The name of a label. | OPTIONAL |
| gateway | The IP address of the next hop (direct connected gateway or extended route) | OPTIONAL |
| intf | Only for special interface routes : the outgoing IP interface name. | OPTIONAL |
| srcintf | Use this interface for source address selection. | OPTIONAL |
| static | Route persistency: static or dynamic (note that not all routes can be changed). | OPTIONAL |
| status | The administrative state of the route. | OPTIONAL |
| type | The type for this route | OPTIONAL |
| metric | The metric for this route (weight factor). | OPTIONAL |

ip rtdelete

Delete a route from the routing table.

SYNTAX:

```
ip rtdelete          dst = <ip-prefix>
                    [label = <{None|Interactive|Local|Management|
SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
default}>]
                    [gateway = <ip-address>]
                    [intf = <{loop|Internet|LocalNetwork}>]
```

where:

| | | |
|---------|--|----------|
| dst | The destination IP address specification of the route to delete. | REQUIRED |
| label | The name of a label. | OPTIONAL |
| gateway | The IP address of the next hop. | OPTIONAL |
| intf | The outgoing IP interface name. (For special interface routes only). | OPTIONAL |

ip rtlist

Display the routing table.

SYNTAX:

```
ip rtlist [expand = <{disabled|enabled}>]  
         [proto = <{ipv4|ipv6}>]
```

where:

| | | |
|--------|----------------------|----------|
| expand | Expanded listing. | OPTIONAL |
| proto | The protocol family. | OPTIONAL |

ipqos Commands

| | | |
|---------------------------|---|--------------|
| <i>ipqos config</i> | <i>Modify the IP QoS configuration for a given destination of an interface.</i> | see page 708 |
| <i>ipqos ef config</i> | <i>Modify an IP QoS EF timer configuration for an interface.</i> | see page 710 |
| <i>ipqos ef list</i> | <i>Display the IP QoS EF timers.</i> | see page 711 |
| <i>ipqos ef stats</i> | <i>Display the IP QoS EF timer statistics.</i> | see page 712 |
| <i>ipqos list</i> | <i>Display the IP QoS configuration.</i> | see page 713 |
| <i>ipqos meter add</i> | <i>Add an IP QoS meter.</i> | see page 714 |
| <i>ipqos meter clear</i> | <i>Clear the IP QoS meter statistics.</i> | see page 715 |
| <i>ipqos meter config</i> | <i>Modify an IP QoS meter configuration.</i> | see page 716 |
| <i>ipqos meter delete</i> | <i>Delete an IP QoS meter.</i> | see page 718 |
| <i>ipqos meter flush</i> | <i>Flush all IP QoS meters.</i> | see page 719 |
| <i>ipqos meter list</i> | <i>Display the IP QoS meters.</i> | see page 720 |
| <i>ipqos meter start</i> | <i>Start an IP QoS meter.</i> | see page 721 |
| <i>ipqos meter stats</i> | <i>Display the IP QoS meter statistics.</i> | see page 722 |
| <i>ipqos meter stop</i> | <i>Stop an IP QoS meter.</i> | see page 723 |
| <i>ipqos queue clear</i> | <i>Clear the IP QoS statistics.</i> | see page 724 |
| <i>ipqos queue config</i> | <i>Modify the IP QoS subqueue configuration.</i> | see page 725 |
| <i>ipqos queue list</i> | <i>Display the IP QoS subqueue configuration.</i> | see page 727 |
| <i>ipqos queue stats</i> | <i>Display the IP QoS subqueue statistics.</i> | see page 728 |

ipqos config

Modify the IP QoS configuration for a given destination of an interface.

SYNTAX:

```
ipqos config dest = <{atm_pvc_8_35}>
              [state = <{disabled|enabled}>]
              [discard = <{tail|early}>]
              [priority = <{wfq|strict|wrr}>]
              [realtimerate = <number{1-100}>]
              [burstsize = <number{1-64}>]
              [qtyrealtimequeues = <number{1-3}>]
              [backgroundqueue = <{disabled|enabled}>]
              [ecnthreshold = <number{1-99}>]
              [weight1 = <number{1-99}>]
              [weight2 = <number{1-99}>]
              [weight3 = <number{0-98}>]
              [weight4 = <number{0-97}>]
              [weight5 = <number{0-96}>]
              [maxpackets = <number{0-500}>]
              [maxbytes = <number{0-256}>]
```

where:

| | | |
|-------------------|--|----------|
| dest | The destination of the interface. Typically, a phonebook entry. | REQUIRED |
| state | Enable/Disable IP QoS for the interface. | OPTIONAL |
| discard | The packet discard strategy in case of congestion. | OPTIONAL |
| priority | The subqueue priority algorithm. | OPTIONAL |
| realtimerate | The percentage of the bandwidth. | OPTIONAL |
| burstsize | Burstsize in kilo bytes (KB). | OPTIONAL |
| qtyrealtimequeues | Number of real-time priority queues. | OPTIONAL |
| backgroundqueue | Enable/Disable the best effort background queue. | OPTIONAL |
| ecnthreshold | The ECN marking threshold. | OPTIONAL |
| weight1 | The weight of queue 1 used for weighted fair queueing (WFQ) or weighted round robin (WRR). | OPTIONAL |
| weight2 | The weight of queue 2 used for weighted fair queueing (WFQ) or weighted round robin (WRR). | OPTIONAL |
| weight3 | The weight of queue 3 used for weighted fair queueing (WFQ) or weighted round robin (WRR). | OPTIONAL |
| weight4 | The weight of queue 4 used for weighted fair queueing (WFQ) or weighted round robin (WRR). | OPTIONAL |

| | | |
|------------|---|----------|
| weight5 | The weight of queue 5 used for weighted fair queueing (WFQ) or weighed round robin (WRR). | OPTIONAL |
| maxpackets | The maximum number of packets in all queues. | OPTIONAL |
| maxbytes | The maximum size in kilo bytes (KB) in all queues. | OPTIONAL |

ipqos ef config

Modify an IP QoS EF timer configuration for an interface.

SYNTAX:

```
ipqos ef config          intf = <{loop|Internet|LocalNetwork}>
                        [state = <{disabled|enabled}>]
                        [timeout = <number{100-10000}>]
                        [mtu = <number{68-65535}>]
```

where:

| | | |
|---------|---|----------|
| intf | The IP interface name. | REQUIRED |
| state | Enable/Disable IP QoS EF timer for the interface. | OPTIONAL |
| timeout | The timeout in milli seconds. | OPTIONAL |
| mtu | The MTU of the IP interface in case of EF data. | OPTIONAL |

ipqos ef list

Display the IP QoS EF timers.

ipqos ef stats

Display the IP QoS EF timer statistics.

ipqos list

Display the IP QoS configuration.

ipqos meter add

Add an IP QoS meter.

SYNTAX:

```
ipqos meter add name = <string>
```

where:

| | | |
|------|-------------------------------|----------|
| name | The name of the IP QoS meter. | REQUIRED |
|------|-------------------------------|----------|

ipqos meter clear

Clear the IP QoS meter statistics.

ipqos meter config

Modify an IP QoS meter configuration.

SYNTAX:

```
ipqos meter config          name = <{ }>
                           [label = <{Interactive|Local|Management|
                           SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
                           default}>]
                           [intf = <{loop|Internet|LocalNetwork}>]
                           [droprate = <number{0-102400}>]
                           [markrate = <number{0-102400}>]
                           [burst = <number{0-64}>]
                           [dropaction = <{count|drop}>]
                           [markaction = <{count|mark}>]
                           [tosmarking = <{disabled|enabled}>]
                           [tos = <number{0-255}>]
                           [dscp = <{ef|af11|af12|af13|af21|af22|af23|
                           af31|af32|af33|af41|af42|af43|cs0|cs1|cs2|cs3|
                           cs4|cs5|cs6|cs7} or number>]
                           [precedence = <{routine|priority|immediate|
                           flash|flash-override|CRITIC-ECP|internetwork-
                           control|network-control} or number>]
                           [classification = <{decrease|overwrite|ignore|
                           offset}>]
                           [class = <number{0-15}>]
                           [direction = <{outbound|inbound}>]
```

where:

| | | |
|----------------|--|----------|
| name | The name of the IP QoS meter. | REQUIRED |
| label | The name of the label. | OPTIONAL |
| intf | The name of the interface. | OPTIONAL |
| droprate | The drop rate in kilo bits per second (Kbps). | OPTIONAL |
| markrate | The mark rate in kilo bits per second (Kbps). | OPTIONAL |
| burst | The burst size in kilo bytes (KB). | OPTIONAL |
| dropaction | The drop action. | OPTIONAL |
| markaction | The mark action. | OPTIONAL |
| tosmarking | Enable tos marking for marked packets. | OPTIONAL |
| tos | The type of service used for tos marking. | OPTIONAL |
| dscp | The diffserv code point (part of tos, used for tos-marking). | OPTIONAL |
| precedence | The precedence (part of tos, used for tos-marking). | OPTIONAL |
| classification | The type of classification for marked packets. | OPTIONAL |

| | | |
|------------------------|---|----------|
| <code>class</code> | The class or offset used for classification. | OPTIONAL |
| <code>direction</code> | The direction of policing: outbound or inbound. | OPTIONAL |

ipqos meter delete

Delete an IP QoS meter.

SYNTAX:

```
ipqos meter delete          name = <{}>
```

where:

| | | |
|------|-------------------------------|----------|
| name | The name of the IP QoS meter. | REQUIRED |
|------|-------------------------------|----------|

ipqos meter flush

Flush all IP QoS meters.

ipqos meter list

Display the IP QoS meters.

ipqos meter start

Start an IP QoS meter.

SYNTAX:

```
ipqos meter start name = <{ }>
```

where:

| | | |
|------|---------------------------------------|----------|
| name | The name of the stopped IP QoS meter. | REQUIRED |
|------|---------------------------------------|----------|

ipqos meter stats

Display the IP QoS meter statistics.

ipqos meter stop

Stop an IP QoS meter.

SYNTAX:

```
ipqos meter stop          name = <{}>
```

where:

| | | |
|------|---------------------------------------|----------|
| name | The name of the started IP QoS meter. | REQUIRED |
|------|---------------------------------------|----------|

ipqos queue clear

Clear the IP QoS statistics.

ipqos queue config

Modify the IP QoS subqueue configuration.

SYNTAX:

```
ipqos queue config dest = <{atm_pvc_8_35}>
                    queue = <number{0-5}>
                    [discard = <{tail|early}>]
                    [propagate = <{disabled|enabled}>]
                    [ecnmarking = <{disabled|enabled}>]
                    [maxrate = <number{1-100}>]
                    [maxburst = <number{1-64}>]
                    [ackfiltering = <{disabled|enabled}>]
                    [maxpackets = <number{0-500}>]
                    [maxbytes = <number{0-256}>]
                    [respackets = <number{0-500}>]
                    [resbytes = <number{0-256}>]
                    [hold = <number>]
                    [markprob = <number{1-1000}>]
                    [loprio = <number{0-15}>]
                    [hiprio = <number{0-15}>]
```

where:

| | | |
|--------------|---|----------|
| dest | The destination of the interface. Typically, a phonebook entry. | REQUIRED |
| queue | The number of the subqueue. | REQUIRED |
| discard | The packet discard strategy in case of congestion. | OPTIONAL |
| propagate | Propagate the packets in lower priority queue iso. dropping. | OPTIONAL |
| ecnmarking | Enable Explicit Congestion Notification for IP packets in this subqueue. | OPTIONAL |
| maxrate | The percentage of the bandwidth. | OPTIONAL |
| maxburst | Burstsize in kilo bytes (KB). | OPTIONAL |
| ackfiltering | Enable filtering of TCP ACK packets. | OPTIONAL |
| maxpackets | The maximum number of packets in the subqueue. | OPTIONAL |
| maxbytes | The maximum subqueue size in kilo bytes (KB). | OPTIONAL |
| respackets | The reserved number of packets in the subqueue. | OPTIONAL |
| resbytes | The reserved subqueue size in kilo bytes (KB). | OPTIONAL |
| hold | The hold time in microseconds for early discard strategy. | OPTIONAL |
| markprob | The maximum packet marking probability in parts per mille for early discard strategy. | OPTIONAL |

| | | |
|--------|---|----------|
| loprio | The lowest internal priority boundary for entering this queue. | OPTIONAL |
| hiprio | The highest internal priority boundary for entering this queue. | OPTIONAL |

ipqos queue list

Display the IP QoS subqueue configuration.

SYNTAX:

```
ipqos queue list [dest = <{atm_pvc_8_35}>]
```

where:

| | | |
|------|---|----------|
| dest | The destination of the interface. Typically, a phonebook entry. | OPTIONAL |
|------|---|----------|

ipqos queue stats

Display the IP QoS subqueue statistics.

SYNTAX:

```
ipqos queue stats [dest = <{atm_pvc_8_35}>]
```

where:

| | | |
|------|---|----------|
| dest | The destination of the interface. Typically, a phonebook entry. | OPTIONAL |
|------|---|----------|

label Commands

| | | |
|-------------------------------------|---|--------------|
| <i>label add</i> | <i>Add a label.</i> | see page 730 |
| <i>label chain add</i> | <i>Add a chain.</i> | see page 731 |
| <i>label chain delete</i> | <i>Delete a chain.</i> | see page 732 |
| <i>label chain flush</i> | <i>Flush all chains.</i> | see page 733 |
| <i>label chain list</i> | <i>Display a list of chains.</i> | see page 734 |
| <i>label delete</i> | <i>Delete a label.</i> | see page 735 |
| <i>label flush</i> | <i>Flush all label.</i> | see page 736 |
| <i>label list</i> | <i>Display the labels.</i> | see page 737 |
| <i>label modify</i> | <i>Modify a label configuration.</i> | see page 738 |
| <i>label rule add</i> | <i>Add a rule.</i> | see page 739 |
| <i>label rule debug clear</i> | <i>Clear rule statistics.</i> | see page 741 |
| <i>label rule debug stats</i> | <i>Display rule statistics.</i> | see page 742 |
| <i>label rule debug traceconfig</i> | <i>Display/Modify rule trace configuration.</i> | see page 743 |
| <i>label rule delete</i> | <i>Delete a rule.</i> | see page 744 |
| <i>label rule flush</i> | <i>Flush all rules.</i> | see page 745 |
| <i>label rule list</i> | <i>Display a list of rules.</i> | see page 746 |
| <i>label rule modify</i> | <i>Modify a rule.</i> | see page 747 |

label add

Add a label.

SYNTAX:

```
label add name = <string>
```

where:

| | | |
|------|-----------------------------|----------|
| name | The name of a label to add. | REQUIRED |
|------|-----------------------------|----------|

label chain add

Add a chain.

SYNTAX:

```
label chain add          chain = <string>
```

where:

| | | |
|-------|-------------------------------|----------|
| chain | The name of the chain to add. | REQUIRED |
|-------|-------------------------------|----------|

label chain delete

Delete a chain.

SYNTAX:

```
label chain delete          chain = <chain name>
```

where:

| | | |
|-------|----------------------------------|----------|
| chain | The name of the chain to delete. | REQUIRED |
|-------|----------------------------------|----------|

label chain flush

Flush all chains.

label chain list

Display a list of chains.

SYNTAX:

```
label chain list [format = <{pretty|cli}>]
```

where:

| | | |
|--------|-------------------------------|----------|
| format | The format of the chain list. | OPTIONAL |
|--------|-------------------------------|----------|

label delete

Delete a label.

SYNTAX:

```
label delete name = <{Interactive|Local|Management|
SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
default}>
```

where:

| | | |
|------|----------------------|----------|
| name | The name of a label. | REQUIRED |
|------|----------------------|----------|

label flush

Flush all label.

label list

Display the labels.

SYNTAX:

```
label list [name = <{Interactive|Local|Management|
SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
default}>]
```

where:

| | | |
|------|----------------------|----------|
| name | The name of a label. | OPTIONAL |
|------|----------------------|----------|

label modify

Modify a label configuration.

SYNTAX:

```
label modify name = <{Interactive|Local|Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|default}>
[classification = <{ignore|overwrite|increase}>]
[defclass = <{0|1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|dscp|default}>]
[ackclass = <{0|1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|prioritize|defclass}>]
[bidirectional = <{disabled|enabled}>]
[inheritance = <{disabled|enabled}>]
[tosmarking = <{disabled|enabled}>]
[tos = <number{0-255}>]
[dscp = <{ef|af11|af12|af13|af21|af22|af23|af31|af32|af33|af41|af42|af43|cs0|cs1|cs2|cs3|cs4|cs5|cs6|cs7} or number>]
[precedence = <{routine|priority|immediate|flash|flash-override|CRITIC-ECP|internetwork-control|network-control} or number>]
[trace = <{disabled|enabled}>]
```

where:

| | | |
|----------------|---|----------|
| name | The name of a label to modify. | REQUIRED |
| classification | The Method of classification. | OPTIONAL |
| defclass | The default class of assigned connection. | OPTIONAL |
| ackclass | The class of ACK segments of TCP connection. | OPTIONAL |
| bidirectional | The label is also valid for returning stream. | OPTIONAL |
| inheritance | The label is also valid for corresponding stream of child connection. | OPTIONAL |
| tosmarking | Enable/disable TOS marking. | OPTIONAL |
| tos | The Type Of Service specification in the IP packet (used for tos- marking). | OPTIONAL |
| dscp | The diffserv code point (part of tos, used for tos-marking). | OPTIONAL |
| precedence | The precedence (part of tos, used for tos-marking). | OPTIONAL |
| trace | Enable/disable IP tracing for this label. | OPTIONAL |

label rule add

Add a rule.

SYNTAX:

```
label rule add          chain = <chain name>
                        [index = <number>]
                        [name = <string>]
                        [clink = <chain name>]
                        [srcintf [!] = <{wan|local|lan|tunnel|dmz|
                        guest}>]
                        [srcip [!] = <{contentsharing_ip|private|
                        sstp_ip|mdap_ip}>]
                        [dstip [!] = <{contentsharing_ip|private|
                        sstp_ip|mdap_ip}>]
                        [serv [!] = <{icmp|igmp|ftp|telnet|http|
                        httpproxy|https|RPC|NBT|SMB|imap|esp|ah|ike|
                        sip|h323|dhcp|rtsp|sstp_serv|mdap_serv|syslog|
                        VoIP-Inc-SIP-UDP|VoIP-Inc-SIP-TCP|VoIP-Inc-
                        RTP|gre|icmpv6}>]
                        [length [!] = <{}>]
                        [log = <{disabled|enabled}>]
                        [state = <{disabled|enabled}>]
                        label = <{None|link|Interactive|Local|
                        Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                        VoIP-Signal|default}>
```

where:

| | | |
|-------------|--|----------|
| chain | The name of the chain which contains the rule. | REQUIRED |
| index | The index of the rule in the chain. | OPTIONAL |
| name | The name of the new rule. | OPTIONAL |
| clink | The name of the chain to be parsed when this rule applies. | OPTIONAL |
| srcintf [!] | The name of the source interface expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| srcip [!] | The name of the source ip expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| dstip [!] | The name of the destination ip expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| serv [!] | The name of the service expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| length [!] | The name of the length expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |

LABEL COMMANDS

| | | |
|-------|--|----------|
| log | Disable/Enable logging when this rule applies. | OPTIONAL |
| state | Disable/Enable this rule. | OPTIONAL |
| label | None, link (when clink is used) or label name. | REQUIRED |

label rule debug clear

Clear rule statistics.

SYNTAX:

```
label rule debug clear      [chain = <chain name>]
                             [index = <number>]
```

where:

| | | |
|-------|-------------------------------------|----------|
| chain | The name of the chain. | OPTIONAL |
| index | The index of the rule in the chain. | OPTIONAL |

label rule debug stats

Display rule statistics.

SYNTAX:

```
label rule debug stats      [chain = <chain name>]
                           [index = <number>]
```

where:

| | | |
|-------|-------------------------------------|----------|
| chain | The name of the chain. | OPTIONAL |
| index | The index of the rule in the chain. | OPTIONAL |

label rule debug traceconfig

Display/Modify rule trace configuration.

SYNTAX:

```
label rule debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-----------------------------|----------|
| state | Disable/Enable rule traces. | OPTIONAL |
|-------|-----------------------------|----------|

label rule delete

Delete a rule.

SYNTAX:

```
label rule delete          chain = <chain name>
                          index = <number>
```

where:

| | | |
|-------|--|----------|
| chain | The name of the chain in which to delete the rule. | REQUIRED |
| index | The number of the rule in the chain. | REQUIRED |

label rule flush

Flush all rules.

SYNTAX:

```
label rule flush [chain = <chain name>]
```

where:

| | | |
|-------|---------------------------------|----------|
| chain | The name of the chain to flush. | OPTIONAL |
|-------|---------------------------------|----------|

label rule list

Display a list of rules.

SYNTAX:

```
label rule list [chain = <chain name>]
                [format = <{pretty|cli}>]
```

where:

| | | |
|--------|---|----------|
| chain | The name of the chain to list the rules of. | OPTIONAL |
| format | The format of the rule list. | OPTIONAL |

label rule modify

Modify a rule.

SYNTAX:

```
label rule modify          chain = <chain name>
                          [index = <number>]
                          [newindex = <number>]
                          [name = <string>]
                          [clink = <chain name>]
                          [[!]srcintf] = <chain name>]
                          [[!]srcip] = <chain name>]
                          [[!]dstip] = <chain name>]
                          [[!]serv] = <chain name>]
                          [[!]length] = <chain name>]
                          [log = <{disabled|enabled}>]
                          [state = <{disabled|enabled}>]
                          [label = <{None|link|Interactive|Local|
Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
VoIP-Signal|default}>]
```

where:

| | | |
|--------------|--|----------|
| chain | The name of the chain which contains the rule. | REQUIRED |
| index | The index of the rule in the chain. | OPTIONAL |
| newindex | The new index of the rule in the chain. | OPTIONAL |
| name | The name of the new rule. | OPTIONAL |
| clink | The name of the chain to be parsed when this rule applies. | OPTIONAL |
| [[!]srcintf] | The name of the source interface expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]srcip] | The name of the source ip expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]dstip] | The name of the destination ip expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]serv] | The name of the service expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| [[!]length] | The name of the length expression. If a value is preceded by a “!”, it means NOT. | OPTIONAL |
| log | Disable/Enable logging when this rule applies. | OPTIONAL |
| state | Disable/Enable this rule. | OPTIONAL |

| | | |
|-------|--|----------|
| label | None, link (when clink is used) or label name. | OPTIONAL |
|-------|--|----------|

language Commands

| | | |
|------------------------|---|--------------|
| <i>language config</i> | <i>Select a language.</i> | see page 750 |
| <i>language delete</i> | <i>Delete one or all language archives.</i> | see page 751 |
| <i>language list</i> | <i>List available languages archives.</i> | see page 752 |

language config

Select a language.

SYNTAX:

```
language config          [language = <string>]
                        [complete = <{yes|no}>]
```

where:

| | | |
|----------|---|----------|
| language | Language code : OSI language code (2 chars) for language (en=English) | OPTIONAL |
| complete | Enable translation for expert pages. | OPTIONAL |

language delete

Delete one or all language archives.

SYNTAX:

```
language delete          [file = <string>]
                        [all = <{yes|no}>]
```

where:

| | | |
|------|---|----------|
| file | Filename : name of language archive to delete | OPTIONAL |
| all | Deletes all languages archives. | OPTIONAL |

language list

List available languages archives.

led Command

Configures led behavior.

SYNTAX:

```
led config [infotimeout = <number{0-255}>]
           [alwayson = <{disabled|enabled}>]
           [checkinternetservice = <{disabled|enabled}>]
           [checkvoiceservice = <{disabled|enabled}>]
           [checkvideoservice = <{disabled|enabled}>]
```

where:

| | | |
|----------------------|---|----------|
| infotimeout | Sets the amount of seconds the status of the leds will be shown when a button is pressed. | OPTIONAL |
| alwayson | Enable/disable the powering off of LEDs when everything is OK!. | OPTIONAL |
| checkinternetservice | Enable/disable the INTERNET service check. | OPTIONAL |
| checkvoiceservice | Enable/disable the VOICE service check. | OPTIONAL |
| checkvideoservice | Enable/disable the VIDEO service check. | OPTIONAL |

mbus Commands

| | | |
|---------------------------------|---|--------------|
| <i>mbus client authenticate</i> | <i>Authenticate a session</i> | see page 756 |
| <i>mbus client config</i> | <i>Modify client parameters</i> | see page 757 |
| <i>mbus client exec</i> | <i>Execute mbus command</i> | see page 758 |
| <i>mbus client register</i> | <i>Register cli client to mbus</i> | see page 760 |
| <i>mbus client termsession</i> | <i>Terminate a session</i> | see page 761 |
| <i>mbus client unregister</i> | <i>Unregister cli client from mbus</i> | see page 762 |
| <i>mbus debug clearstats</i> | <i>Reset mbus statistics.</i> | see page 763 |
| <i>mbus debug commconfig</i> | <i>Modify communication settings.</i> | see page 764 |
| <i>mbus debug loadobjects</i> | <i>Load/sync object instances from plugins</i> | see page 765 |
| <i>mbus debug stats</i> | <i>Display mbus statistics.</i> | see page 766 |
| <i>mbus debug traceconfig</i> | <i>Modify mbus trace settings.</i> | see page 767 |
| <i>mbus debug unloadobjects</i> | <i>Unload object instances</i> | see page 768 |
| <i>mbus listcontexts</i> | <i>Display the context instances</i> | see page 769 |
| <i>mbus listenums</i> | <i>Display the registered enumtypes</i> | see page 770 |
| <i>mbus listobjects</i> | <i>Display the object instances</i> | see page 771 |
| <i>mbus listsubscriptions</i> | <i>Display the subscription instances</i> | see page 772 |
| <i>mbus listtypes</i> | <i>Display the registered objecttypes</i> | see page 773 |
| <i>mbus pluginevent</i> | <i>Simulate event from plugin</i> | see page 774 |
| <i>mbus unregister</i> | <i>Unregister a client/plugin context</i> | see page 775 |
| <i>mbus xmldump</i> | <i>Dump the registered datamodel to an XML file</i> | see page 776 |

mbus client authenticate

Authenticate a session

SYNTAX:

```
mbus client authenticate      type = <{cleartext|crypt|digest|defaultuser}>
                               [username = <quoted string>]
                               [password = <password>]
                               [addr = <ipv4-address>]
```

where:

| type | Authentication type | REQUIRED |
|----------|--|----------|
| username | User name | OPTIONAL |
| password | password | OPTIONAL |
| addr | IP address of peer who initiated the authentication request. | OPTIONAL |

mbus client config

Modify client parameters

SYNTAX:

```
mbus client config      [writelock = <{enabled|disabled}>]
                        [wlgettimeout = <number>]
                        [wldletimeout = <number>]
                        [path = <quoted string>]
                        [type = <{indexpath|keystpath}>]
                        [id = <number>]
```

where:

| | | |
|--------------|--|----------|
| writelock | Get/release mbus writelock | OPTIONAL |
| wlgettimeout | Writelock get timeout in seconds (forever=-1, *default=nowait=0) | OPTIONAL |
| wldletimeout | Writelock idle timeout in seconds (forever=-1, *default=30) | OPTIONAL |
| path | Fully qualified mbus path | OPTIONAL |
| type | Path type (default = indexpath) | OPTIONAL |
| id | sessionid to use | OPTIONAL |

mbus client exec

Execute mbus command

SYNTAX:

```
mbus client exec cmd = <{getpath|getcount|getnames|getvalues|
setvalue|addobject|deleteobject|subscribe|
unsubscribe|getaccessrights|setaccessrights}>
[param = <quoted string>]
[value = <quoted string>]
[gettype = <{parameter|path|object}>]
[depth = <number>]
[processcmd = <{enabled|disabled}>]
[onerrorrollback = <{enabled|disabled}>]
[usecallback = <{enabled|disabled}>]
[filter = <quoted string>]
[path = <quoted string>]
[flags = <[+/-]flag[+/-flag...]{indexpath
keystpath uncommitted dynamic xref_localidx
xref_keypath exact_depth noparamvalue
applyonparamsapplyrecursive typetreepath
non_persistent}>]
[accesslist = <quoted string>]
[action = <[+/-]flag[+/-flag...]{read write
attrchg}>]
[modifier = <{add|delete|allow_only|
allow_except}>]
[replytype = <{getallowed|getdisallowed|
getasconfigured}>]
[attribute = <{ar_archg|ar_read|ar_write|
param_cached|param_enums|param_readable|
param_type|param_writable|param_xrefs|
objtype_cached|objtype_max|objtype_writable|
object_clean|object_dynamic|type|param_ipv4|
param_ipv6}>]
[timing = <{disabled|enabled}>]
[no_output = <{disabled|enabled}>]
```

where:

| cmd | Mbus command name | REQUIRED |
|-----------------|--|----------|
| param | Parameter name | OPTIONAL |
| value | Parameter value to set | OPTIONAL |
| gettype | Get type elements (default=param) | OPTIONAL |
| depth | Number of levels to recurse, default=-1 (all) | OPTIONAL |
| processcmd | Process SET_VALUE command flag (default=enabled) | OPTIONAL |
| onerrorrollback | on error rollback flag (default=enabled) | OPTIONAL |

| | | |
|-------------|---|----------|
| usecallback | Use result callback function (default=enabled) | OPTIONAL |
| filter | The filter should be formatted as '(operator operand operand)'. Possible operators are ==, !=, <, <=, >, >=, and, or, not. The left operand is a parameter name. The right operand is a parameter value. For boolean operators the operands are filters. Example: '(= Name eth0)' | OPTIONAL |
| path | Fully qualified mbus path | OPTIONAL |
| flags | Client command data flags | OPTIONAL |
| accesslist | Comma separated names of accessrights groups | OPTIONAL |
| action | Type of accessright action | OPTIONAL |
| modifier | Accessrights modifier | OPTIONAL |
| replytype | Type of accessrights reply | OPTIONAL |
| attribute | Requested attribute-type | OPTIONAL |
| timing | Print duration of command invocation (default=disabled) | OPTIONAL |
| no_output | Discard the output of the command (default=disabled) | OPTIONAL |

mbus client register

Register cli client to mbus

SYNTAX:

```
mbus client register      [dmtree = <{igd|atomic|system}>]
                          [type = <{indexpath|keystspath}>]
                          [dlink = <{local_ipc|remote_inet}>]
                          [mbusd_addr = <quoted string>]
                          [refresolv = <{disabled|enabled}>]
                          [state_events = <{disabled|enabled}>]
                          [persistent = <{enabled|disabled}>]
```

where:

| | | |
|--------------|---|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
| type | Path type (default = indexpath) | OPTIONAL |
| dlink | Daemon link (default = local_ipc) | OPTIONAL |
| mbusd_addr | Daemon address (ip addr for inet) | OPTIONAL |
| refresolv | Use reference resolving (default=disabled) | OPTIONAL |
| state_events | Context should be notified when the MBus state changes (default=disabled) | OPTIONAL |
| persistent | Context's actions are persistent or not (default=enabled) | OPTIONAL |

mbus client termsession

Terminate a session

SYNTAX:

```
mbus client termsession      id = <number>
```

where:

| | | |
|----|----------------------------|----------|
| id | id of session to terminate | REQUIRED |
|----|----------------------------|----------|

mbus client unregister

Unregister cli client from mbus

mbus debug clearstats

Reset mbus statistics.

mbus debug commconfig

Modify communication settings.

SYNTAX:

```
mbus debug commconfig [pong-to = <number>]
```

where:

| | | |
|---------|---|----------|
| pong-to | Mbus message communication pong time-out. | OPTIONAL |
|---------|---|----------|

mbus debug loadobjects

Load/sync object instances from plugins

SYNTAX:

```
mbus debug loadobjects      [dmtree = <{igd|atomic|system}>]
                           [path = <quoted string>]
                           [type = <{indexpath|keystpath}>]
                           [flush = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
| path | Fully qualified mbus path | OPTIONAL |
| type | Path type (default = indexpath) | OPTIONAL |
| flush | Flush objects before load (default=disabled) | OPTIONAL |

mbus debug stats

Display mbus statistics.

mbus debug traceconfig

Modify mbus trace settings.

SYNTAX:

```
mbus debug traceconfig [level = <number{0-4}>]
```

where:

| | | |
|-------|--------------------------------|----------|
| level | Select mbus trace level (0-4). | OPTIONAL |
|-------|--------------------------------|----------|

mbus debug unloadobjects

Unload object instances

SYNTAX:

```
mbus debug unloadobjects      [dmtree = <{igd|atomic|system}>]
                               [path = <quoted string>]
                               [type = <{indexpath|keystpath}>]
                               [flush = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
| path | Fully qualified mbus path | OPTIONAL |
| type | Path type | OPTIONAL |
| flush | Flush objects before load (default=disabled) | OPTIONAL |

mbus listcontexts

Display the context instances

SYNTAX:

```
mbus listcontexts          [dmtree = <{igd|atomic|system}>]
                           [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|------------------------------|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
| expand | Details enabled/disabled | OPTIONAL |

mbus listenums

Display the registered enumtypes

SYNTAX:

```
mbus listenums [dmtree = <{igd|atomic|system}>]
               [name = <quoted string>]
               [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
| name | Filter enumtypes by (part of) the name | OPTIONAL |
| expand | Details enabled/disabled | OPTIONAL |

mbus listobjects

Display the object instances

SYNTAX:

```
mbus listobjects          [dmtree = <{igd|atomic|system}>]
                          [path = <quoted string>]
                          [type = <{indexpath|keystpath}>]
                          [output = <{tree|list}>]
                          [showflags = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
| path | Fully qualified mbus path to list. | OPTIONAL |
| type | Path type (default = indexpath) | OPTIONAL |
| output | List output type | OPTIONAL |
| showflags | Display object flags (Clean or Dirty / Persistent or Volatile) | OPTIONAL |

mbus listsubscriptions

Display the subscription instances

SYNTAX:

```
mbus listsubscriptions [dmtree = <{igd|atomic|system}>]
```

where:

| | | |
|--------|------------------------------|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
|--------|------------------------------|----------|

mbus listtypes

Display the registered objecttypes

SYNTAX:

```
mbus listtypes          [dmtree = <{igd|atomic|system}>]
                        [path = <quoted string>]
                        [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|------------------------------------|----------|
| dmtree | Select mbusd datamodel tree. | OPTIONAL |
| path | Fully qualified mbus path to list. | OPTIONAL |
| expand | Details enabled/disabled | OPTIONAL |

mbus pluginevent

Simulate event from plugin

SYNTAX:

```
mbus pluginevent          ctxid = <number>
                          type = <{addobj|delobj|upobj}>
                          path = <quoted string>
                          [name = <quoted string>]
                          [value = <quoted string>]
                          [orivalue = <quoted string>]
                          [flags = <[+/-]flag[+/-flag...]{dynamic
save}>]
```

where:

| | | |
|----------|-----------------------|----------|
| ctxid | Plugin context id | REQUIRED |
| type | Event type | REQUIRED |
| path | Plugin event subpath | REQUIRED |
| name | Plugin event name | OPTIONAL |
| value | Plugin event value | OPTIONAL |
| orivalue | Plugin event orivalue | OPTIONAL |
| flags | Plug-in event flags | OPTIONAL |

mbus unregister

Unregister a client/plugin context

SYNTAX:

```
mbus unregister          id = <number>
```

where:

| | | |
|----|--|----------|
| id | Select message-based client/plugin context id. | REQUIRED |
|----|--|----------|

mbus xmldump

Dump the registered datamodel to an XML file

SYNTAX:

```
mbus xmldump filename = <string>
              [format = <{unix|mac|windows}>]
```

where:

| | | |
|----------|----------------------------|----------|
| filename | Filename. | REQUIRED |
| format | Select output file format. | OPTIONAL |

memm Commands

| | | |
|------------------------------------|--|--------------|
| <i>memm debug clearstats</i> | <i>Clear time statistics.</i> | see page 778 |
| <i>memm debug lock stats</i> | <i>Display lock statistics.</i> | see page 779 |
| <i>memm debug lock traceconfig</i> | <i>Modify lock trace settings.</i> | see page 780 |
| <i>memm debug stats</i> | <i>Display memm time statistics.</i> | see page 781 |
| <i>memm debug tag</i> | <i>(Un)tag memory manager objects.</i> | see page 782 |
| <i>memm debug traceconfig</i> | <i>Modify memm trace settings.</i> | see page 783 |
| <i>memm listobjects</i> | <i>Display objects.</i> | see page 784 |
| <i>memm stats</i> | <i>Display memm statistics.</i> | see page 785 |

memm debug clearstats

Clear time statistics.

memm debug lock stats

Display lock statistics.

memm debug lock traceconfig

Modify lock trace settings.

SYNTAX:

```
memm debug lock traceconfig    [level = <number{0-4}>]
                               [name = <quoted string>]
                               [showtid = <{no|yes}>]
```

where:

| | | |
|---------|--|----------|
| level | Select memm trace level (0-4). | OPTIONAL |
| name | application name filter for lock traces (empty displays all lock traces) | OPTIONAL |
| showtid | Display task IDs when hitting lock time-outs (disabled by default) | OPTIONAL |

memm debug stats

Display memm time statistics.

SYNTAX:

```
memm debug stats [name = <quoted string>]
```

where:

| | | |
|------|--|----------|
| name | Select typename(s) to list (supports partial typename) | OPTIONAL |
|------|--|----------|

memm debug tag

(Un)tag memory manager objects.

SYNTAX:

```
memm debug tag [name = <quoted string>]
               [tag = <{enabled|disabled}>]
```

where:

| | | |
|------|--|----------|
| name | Select typename(s) to list (supports partial typename) | OPTIONAL |
| tag | Set (or unset) the tag | OPTIONAL |

memm debug traceconfig

Modify memm trace settings.

SYNTAX:

```
memm debug traceconfig [level = <number{0-4}>]
```

where:

| | | |
|-------|--------------------------------|----------|
| level | Select memm trace level (0-4). | OPTIONAL |
|-------|--------------------------------|----------|

memm listobjects

Display objects.

SYNTAX:

```
memm listobjects [name = <quoted string>]
                 [tagged = <{no|yes}>]
                 [hidedeldynstr = <{no|yes}>]
```

where:

| | | |
|---------------|--|----------|
| name | Select typename(s) to list (supports partial typename) | OPTIONAL |
| tagged | Show only tagged (yes) or untagged (no) objects | OPTIONAL |
| hidedeldynstr | Hide (yes) / show (no) deleted dynstrings (default = show) | OPTIONAL |

memm stats

Display memm statistics.

SYNTAX:

```
memm stats [name = <quoted string>]
```

where:

| | | |
|------|--|----------|
| name | Select typename(s) to list (supports partial typename) | OPTIONAL |
|------|--|----------|

mld Commands

| | | |
|------------------------------------|--|--------------|
| <i>mld host config</i> | <i>Display/Modify global MLD configuration.</i> | see page 788 |
| <i>mld host debug block</i> | <i>Block a multicast source (when filter mode is EXCLUDE).</i> | see page 789 |
| <i>mld host debug clear</i> | <i>Clear MLD statistics.</i> | see page 790 |
| <i>mld host debug filter</i> | <i>Change the source filter of a multicast group.</i> | see page 791 |
| <i>mld host debug join</i> | <i>Join a multicast group (and source when filter mode is INCLUDE).</i> | see page 792 |
| <i>mld host debug leave</i> | <i>Leave a multicast group (and source when filter mode is INCLUDE).</i> | see page 793 |
| <i>mld host debug stats</i> | <i>Print MLD statistics.</i> | see page 794 |
| <i>mld host debug unblock</i> | <i>Unblock a multicast source (when filter mode is EXCLUDE).</i> | see page 795 |
| <i>mld host flush</i> | <i>Flush MLD configuration.</i> | see page 796 |
| <i>mld host ifconfig</i> | <i>Configure MLD on an interface.</i> | see page 797 |
| <i>mld host iflist</i> | <i>Display the configuration of an MLD interface(s).</i> | see page 798 |
| <i>mld host list</i> | <i>List the multicast groups.</i> | see page 799 |
| <i>mld proxy config</i> | <i>Configure the MLD proxy.</i> | see page 800 |
| <i>mld proxy debug clear</i> | <i>Clear MLD proxy statistics</i> | see page 801 |
| <i>mld proxy debug stats</i> | <i>Print MLD proxy statistics</i> | see page 802 |
| <i>mld proxy debug traceconfig</i> | <i>Modify MLD proxy trace configuration</i> | see page 803 |
| <i>mld proxy flush</i> | <i>Flush all MLD proxy settings and learned groups</i> | see page 804 |
| <i>mld proxy grouplist</i> | <i>Show the learned groups on an MLD proxy interface.</i> | see page 805 |
| <i>mld proxy ifconfig</i> | <i>Configure an MLD proxy interface.</i> | see page 806 |
| <i>mld proxy iflist</i> | <i>Show the configuration of an MLD proxy interface.</i> | see page 807 |
| <i>mld proxy mbslist</i> | <i>Show the MLD proxy membership database (merge of all learned groups).</i> | see page 808 |

mld host config

Display/Modify global MLD configuration.

SYNTAX:

```
mld host config [requirera = <{disabled|enabled}>]
```

where:

| | | |
|-----------|--|----------|
| requirera | Enable/Disable the router alert IPv6 option check. | OPTIONAL |
|-----------|--|----------|

mld host debug block

Block a multicast source (when filter mode is EXCLUDE).

SYNTAX:

```
mld host debug block      intf = <{loop|Internet|LocalNetwor}>
                          group = <ipv6-address>
                          source = <ipv6-address>
```

where:

| | | |
|--------|----------------------------|----------|
| intf | The IPv6 interface name. | REQUIRED |
| group | The IPv6 multicast group. | REQUIRED |
| source | The IPv6 multicast source. | REQUIRED |

mld host debug clear

Clear MLD statistics.

SYNTAX:

```
mld host debug clear          intf = <{loop|Internet|LocalNetwor}>
```

where:

| | | |
|------|--------------------------|----------|
| intf | The IPv6 interface name. | REQUIRED |
|------|--------------------------|----------|

mld host debug filter

Change the source filter of a multicast group.

SYNTAX:

```
mld host debug filter      intf = <{loop|Internet|LocalNetwor}>
                           group = <ipv6-address>
                           mode = <{exclude|include}>
                           source1 = <ipv6-address>
                           [source2 = <ipv6-address>]
```

where:

| | | |
|---------|----------------------------|----------|
| intf | The IPv6 interface name. | REQUIRED |
| group | The IPv6 multicast group. | REQUIRED |
| mode | The multicast filter mode. | REQUIRED |
| source1 | A multicast source. | REQUIRED |
| source2 | A multicast source. | OPTIONAL |

mld host debug join

Join a multicast group (and source when filter mode is INCLUDE).

SYNTAX:

```
mld host debug join      intf = <{loop|Internet|LocalNetwor}>
                        group = <ipv6-address>
                        [source = <ipv6-address>]
```

where:

| | | |
|--------|----------------------------|----------|
| intf | The IPv6 interface name. | REQUIRED |
| group | The IPv6 multicast group. | REQUIRED |
| source | The IPv6 multicast source. | OPTIONAL |

mld host debug leave

Leave a multicast group (and source when filter mode is INCLUDE).

SYNTAX:

```
mld host debug leave      intf = <{loop|Internet|LocalNetwor}>
                          group = <ipv6-address>
                          [source = <ipv6-address>]
```

where:

| | | |
|--------|----------------------------|----------|
| intf | The IPv6 interface name. | REQUIRED |
| group | The IPv6 multicast group. | REQUIRED |
| source | The IPv6 multicast source. | OPTIONAL |

mld host debug stats

Print MLD statistics.

SYNTAX:

```
mld host debug stats          intf = <{loop|Internet|LocalNetwor}>
```

where:

| | | |
|------|--------------------------|----------|
| intf | The IPv6 interface name. | REQUIRED |
|------|--------------------------|----------|

mld host debug unblock

Unblock a multicast source (when filter mode is EXCLUDE).

SYNTAX:

```
mld host debug unblock      intf = <{loop|Internet|LocalNetwor}>
                             group = <ipv6-address>
                             source = <ipv6-address>
```

where:

| | | |
|--------|----------------------------|----------|
| intf | The IPv6 interface name. | REQUIRED |
| group | The IPv6 multicast group. | REQUIRED |
| source | The IPv6 multicast source. | REQUIRED |

mld host flush

Flush MLD configuration.

mld host ifconfig

Configure MLD on an interface.

SYNTAX:

```
mld host ifconfig          intf = <{loop|Internet|LocalNetwor}>
                           version = <{none|MLDv1}>
```

where:

| | | |
|---------|---|----------|
| intf | The IPv6 interface name. | REQUIRED |
| version | The MLD version host on the IPv6 interface (None = follows RFC 3810; MLDv1 = forces version 1). | REQUIRED |

mld host iflist

Display the configuration of an MLD interface(s).

SYNTAX:

```
mld host iflist [intf = <{loop|Internet|LocalNetwor}>]
                [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--------------------------|----------|
| intf | The IPv6 interface name. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

mld host list

List the multicast groups.

SYNTAX:

```
mld host list [intf = <{loop|Internet|LocalNetwor}>]
              [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--------------------------|----------|
| intf | The IPv6 interface name. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

mld proxy config

Configure the MLD proxy.

SYNTAX:

```
mld proxy config          [state = <{disabled|enabled}>]
                          [qi = <number{1-31744}>]
                          [qri = <number{1-3175}>]
                          [llqi = <number{1-3175}>]
                          [rv = <number{2-8}>]
                          [requirera = <{disabled|enabled}>]
                          [localgroup = <{disabled|enabled}>]
```

where:

| | | |
|------------|---|----------|
| state | Enable/Disable the MLD proxy. | OPTIONAL |
| qi | The interval in seconds between general queries sent by the querier. | OPTIONAL |
| qri | The maximum response time to general queries (in seconds). | OPTIONAL |
| llqi | The maximum response time to group specific queries (in seconds). | OPTIONAL |
| rv | The robustness variable allows tuning the protocol according to the expected packet loss. | OPTIONAL |
| requirera | Enable/Disable the router alert IPv6 option check. | OPTIONAL |
| localgroup | Enable/Disable the processing of a link-local multicast group in an MLD packet. | OPTIONAL |

mld proxy debug clear

Clear MLD proxy statistics

mld proxy debug stats

Print MLD proxy statistics

mld proxy debug traceconfig

Modify MLD proxy trace configuration

SYNTAX:

```
mld proxy debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

mld proxy flush

Flush all MLD proxy settings and learned groups

mld proxy grouplist

Show the learned groups on an MLD proxy interface.

SYNTAX:

```
mld proxy grouplist          [intf = <>]
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|---|----------|
| intf | The name of the MLD proxy interface to be listed. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

mld proxy ifconfig

Configure an MLD proxy interface.

SYNTAX:

```
mld proxy ifconfig          intf = <{LocalNetwork|Internet}>
                             [state = <{inactive|downstream|upstream}>]
                             [version = <{MLDv1|MLDv2}>]
                             [fastdone = <{disabled|enabled}>]
                             [exptrack = <{disabled|enabled}>]
```

where:

| | | |
|----------|---|----------|
| intf | The name of the MLD proxy interface to be configured. | REQUIRED |
| state | The state of the MLD proxy interface. | OPTIONAL |
| version | The MLD version of the proxy interface. | OPTIONAL |
| fastdone | Enable/Disable the immediate deletion of a group when a done is received. | OPTIONAL |
| exptrack | Enable/Disable explicit host tracking. | OPTIONAL |

mld proxy iflist

Show the configuration of an MLD proxy interface.

SYNTAX:

```
mld proxy iflist [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

mld proxy mbslist

Show the MLD proxy membership database (merge of all learned groups).

mlp Commands

| | | |
|---------------------------------|--|--------------|
| <i>mlp debug export</i> | <i>Export all scores.</i> | see page 810 |
| <i>mlp debug stats</i> | <i>Display mlp statistics.</i> | see page 811 |
| <i>mlp debug traceconfig</i> | <i>Modify mlp trace settings.</i> | see page 812 |
| <i>mlp flush</i> | <i>Flush all mlp structures.</i> | see page 813 |
| <i>mlp import</i> | <i>Import all scores.</i> | see page 814 |
| <i>mlp privilege add</i> | <i>Add a privilege.</i> | see page 815 |
| <i>mlp privilege addzone</i> | <i>Add a zone to a privilege.</i> | see page 816 |
| <i>mlp privilege config</i> | <i>Modify the privilege.</i> | see page 817 |
| <i>mlp privilege delete</i> | <i>Delete a privilege.</i> | see page 818 |
| <i>mlp privilege list</i> | <i>Display the privileges.</i> | see page 819 |
| <i>mlp privilege removezone</i> | <i>Remove a zone from a privilege.</i> | see page 820 |
| <i>mlp role add</i> | <i>Add a role.</i> | see page 821 |
| <i>mlp role addpriv</i> | <i>Add a privilege.</i> | see page 822 |
| <i>mlp role config</i> | <i>Modify the role.</i> | see page 823 |
| <i>mlp role delete</i> | <i>Delete a role.</i> | see page 824 |
| <i>mlp role list</i> | <i>Display the roles.</i> | see page 825 |
| <i>mlp role removepriv</i> | <i>Remove a privilege.</i> | see page 826 |
| <i>mlp wlanorigin</i> | <i>WLAN origin support</i> | see page 827 |

mlp debug export

Export all scores.

mlp debug stats

Display mlp statistics.

mlp debug traceconfig

Modify mlp trace settings.

SYNTAX:

```
mlp debug traceconfig [trace = <{disabled|enabled|full}>]
```

where:

| | | |
|-------|-------------------------|----------|
| trace | Select mlp trace level. | OPTIONAL |
|-------|-------------------------|----------|

mlp flush

Flush all mlp structures.

mlp import

Import all scores.

SYNTAX:

```
mlp import [allow_dl = <{no|yes}>]
           [trace = <{disabled|enabled|full}>]
```

where:

| | | |
|----------|--|----------|
| allow_dl | Enable/disable support for /dl/ folder | OPTIONAL |
| trace | Select import trace level. | OPTIONAL |

mlp privilege add

Add a privilege.

SYNTAX:

```
mlp privilege add          name = <string>
                           type = <{access|service}>
                           [descr = <quoted string>]
```

where:

| | | |
|-------|------------------------|----------|
| name | Privilege name. | REQUIRED |
| type | Privilege type. | REQUIRED |
| descr | Privilege description. | OPTIONAL |

mlp privilege addzone

Add a zone to a privilege.

SYNTAX:

```
mlp privilege addzone          name = <>
                               zone = <{Read/LAN/WAN/Local|Write/LAN/WAN/
Local|r_lan|r_wan|r_fs_view|r_certificates|
r_remote_mgnt|r_local|r_qos|w_lan|w_wan|
w_fs_passive|w_rtg|w_fwdg|w_nat|w_frwl_norm|
w_frwl_adv|w_frwl_ss|w_ipsec|w_certificates|
w_remote_mgnt|w_local|w_qos|SND_lan|SND_wan|
SND_local|AND_lan|AND_wan|AND_frwl|AND_local|
User_Admin|MLP_Admin|secure_ipsec_term|
secure_BR|CLI|CGI|FTP|MDAP|secure_reset|
GUI_advanced|mbus|Websev|unsecure_connection|
Sensitve_file|channel_ftp|channel_telnet|
channel_http|channel_mdap|channel_serial|
origin_lan|origin_wan|origin_local|
origin_wlan|trace}>
```

where:

| | | |
|------|-----------------|----------|
| name | Privilege name. | REQUIRED |
| zone | Zone name. | REQUIRED |

mlp privilege config

Modify the privilege.

SYNTAX:

```
mlp privilege config      name = <>
                          [descr = <quoted string>]
                          [score = <{hex-word}[:{hex-word}] ex:
                          'a12:c30f'>]
```

where:

| | | |
|-------|-------------------------------|----------|
| name | Select the privilege by name. | REQUIRED |
| descr | Set the description. | OPTIONAL |
| score | Set the score. | OPTIONAL |

mlp privilege delete

Delete a privilege.

SYNTAX:

```
mlp privilege delete          name = <>
```

where:

| | | |
|------|-----------------|----------|
| name | Privilege name. | REQUIRED |
|------|-----------------|----------|

mlp privilege list

Display the privileges.

SYNTAX:

```
mlp privilege list          [name = <>]
                           [type = <{access|service}>]
                           [verbose = <{minimal|medium|all}>]
```

where:

| | | |
|---------|------------------------|----------|
| name | Privilege name. | OPTIONAL |
| type | Privilege type. | OPTIONAL |
| verbose | Limit the output list. | OPTIONAL |

mlp privilege removezone

Remove a zone from a privilege.

SYNTAX:

```
mlp privilege removezone      name = <>
                               zone = <{Read/LAN/WAN/Local|Write/LAN/WAN/
Local|r_lan|r_wan|r_fs_view|r_certificates|
r_remote_mgnt|r_local|r_qos|w_lan|w_wan|
w_fs_passive|w_rtg|w_fwdg|w_nat|w_frwl_norm|
w_frwl_adv|w_frwl_ss|w_ipsec|w_certificates|
w_remote_mgnt|w_local|w_qos|SND_lan|SND_wan|
SND_local|AND_lan|AND_wan|AND_frwl|AND_local|
User_Admin|MLP_Admin|secure_ipsec_term|
secure_BR|CLI|CGI|FTP|MDAP|secure_reset|
GUI_advanced|mbus|Websev|unsecure_connection|
Sensitve_file|channel_ftp|channel_telnet|
channel_http|channel_mdap|channel_serial|
origin_lan|origin_wan|origin_local|
origin_wlan|trace}>
```

where:

| | | |
|------|-----------------|----------|
| name | Privilege name. | REQUIRED |
| zone | Zone name. | REQUIRED |

mlp role add

Add a role.

SYNTAX:

```
mlp role add          name = <string>
                    parent = <>
                    [descr = <quoted string>]
```

where:

| | | |
|--------|-------------------|----------|
| name | Role name. | REQUIRED |
| parent | Parent role name. | REQUIRED |
| descr | Role description. | OPTIONAL |

mlp role addpriv

Add a privilege.

SYNTAX:

```
mlp role addpriv          name = <>
                          access = <>
                          service = <{anyservice|SP1|SP10|SP11|SP12|
SP13|SP14|SP15|SP16|SP17|SP18|SP19|SP2|SP21|
SP22|SP23|SP24|SP25|SP3|SP4|SP5|SP6|SP7|SP8|
SP9}>
```

where:

| | | |
|---------|--------------------------|----------|
| name | Role name. | REQUIRED |
| access | Access privilege to add. | REQUIRED |
| service | Privilege name to add. | REQUIRED |

mlp role config

Modify the role.

SYNTAX:

```
mlp role config          name = <>
                        [parent = <>]
                        [descr = <quoted string>]
```

where:

| | | |
|--------|-------------------|----------|
| name | Role name. | REQUIRED |
| parent | Parent role name. | OPTIONAL |
| descr | Role description. | OPTIONAL |

mlp role delete

Delete a role.

SYNTAX:

```
mlp role delete          name = <>
```

where:

| | | |
|------|------------|----------|
| name | Role name. | REQUIRED |
|------|------------|----------|

mlp role list

Display the roles.

SYNTAX:

```
mlp role list [name = <>]
              [verbose = <{minimal|medium|all}>]
```

where:

| | | |
|---------|------------------------|----------|
| name | Role name. | OPTIONAL |
| verbose | Limit the output list. | OPTIONAL |

mlp role removepriv

Remove a privilege.

SYNTAX:

```
mlp role removepriv      name = <>
                          access = <>
                          [service = <>]
```

where:

| | | |
|---------|-----------------------------|----------|
| name | Role name. | REQUIRED |
| access | Access privilege to delete. | REQUIRED |
| service | Privilege name to delete. | OPTIONAL |

mlp wlanorigin

WLAN origin support

mobile Commands

| | | |
|---------------------------------|---|--------------|
| <i>mobile debug operator</i> | <i>Shows the currently selected operator.</i> | see page 830 |
| <i>mobile debug sendat</i> | <i>Send AT command to the modem card.</i> | see page 831 |
| <i>mobile debug showsq</i> | <i>Shows signal quality (RSSI & BER).</i> | see page 832 |
| <i>mobile debug traceconfig</i> | <i>Modify trace configuration</i> | see page 833 |
| <i>mobile device list</i> | <i>List mobile devices</i> | see page 834 |
| <i>mobile ifadd</i> | <i>Create a new Mobile interface.</i> | see page 835 |
| <i>mobile ifattach</i> | <i>Attach an Mobile interface.</i> | see page 836 |
| <i>mobile ifconfig</i> | <i>Configure an Mobile interface.</i> | see page 837 |
| <i>mobile ifdelete</i> | <i>Delete an Mobile interface.</i> | see page 838 |
| <i>mobile ifdetach</i> | <i>Detach an Mobile interface.</i> | see page 839 |
| <i>mobile iflist</i> | <i>Display the Mobile interfaces.</i> | see page 840 |
| <i>mobile simcard</i> | <i>Get a state of the SIM card.</i> | see page 841 |

mobile debug operator

Shows the currently selected operator.

SYNTAX:

```
mobile debug operator [list = <{current|all}>]
```

where:

| | | |
|------|------------------------------|----------|
| list | List only the current or all | OPTIONAL |
|------|------------------------------|----------|

mobile debug sendat

Send AT command to the modem card.

SYNTAX:

```
mobile debug sendat          command = <quoted string>
```

where:

| | | |
|---------|------------|----------|
| command | AT command | REQUIRED |
|---------|------------|----------|

mobile debug showsq

Shows signal quality (RSSI & BER).

mobile debug traceconfig

Modify trace configuration

SYNTAX:

```
mobile debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

mobile device list

List mobile devices

mobile ifadd

Create a new Mobile interface.

SYNTAX:

```
mobile ifadd          intf = <string>
```

where:

| | | |
|------|--------------------------------------|----------|
| intf | The name of the new mobile interface | REQUIRED |
|------|--------------------------------------|----------|

mobile ifattach

Attach an Mobile interface.

SYNTAX:

```
mobile ifattach          intf = <>
```

where:

| | | |
|------|-----------------------------------|----------|
| intf | The name of the Mobile interface. | REQUIRED |
|------|-----------------------------------|----------|

mobile ifconfig

Configure an Mobile interface.

SYNTAX:

```
mobile ifconfig          intf = <>
                        [pin = <password>]
                        [puk = <string>]
                        [apn = <string>]
                        [mode = <{automatic|manual}>]
                        [operator = <number{0-99999}>]
                        [technology = <{2G|3G}>]
                        [initcommand = <string>]
```

where:

| | | |
|-------------|--|----------|
| intf | The name of the Mobile interface to configure. | REQUIRED |
| pin | PIN code. | OPTIONAL |
| puk | PUK code. | OPTIONAL |
| apn | Access Point Name. | OPTIONAL |
| mode | Operator selection (automatic, manual). | OPTIONAL |
| operator | Location area identifier + network code. | OPTIONAL |
| technology | Radio access technology (2G, 3G). | OPTIONAL |
| initcommand | AT command executed after SIM verification. | OPTIONAL |

mobile ifdelete

Delete an Mobile interface.

SYNTAX:

```
mobile ifdelete          intf = <>
```

where:

| | | |
|------|-----------------------------------|----------|
| intf | The name of the Mobile interface. | REQUIRED |
|------|-----------------------------------|----------|

mobile ifdetach

Detach an Mobile interface.

SYNTAX:

```
mobile ifdetach          intf = <>
```

where:

| | | |
|------|-----------------------------------|----------|
| intf | The name of the Mobile interface. | REQUIRED |
|------|-----------------------------------|----------|

mobile iflist

Display the Mobile interfaces.

SYNTAX:

```
mobile iflist [intf = <>]
```

where:

| | | |
|------|-----------------------------------|----------|
| intf | The name of the Mobile interface. | OPTIONAL |
|------|-----------------------------------|----------|

mobile simcard

Get a state of the SIM card.

nat Commands

| | | |
|-----------------------|---|--------------|
| <i>nat config</i> | <i>Modify global NAT configuration.</i> | see page 844 |
| <i>nat flush</i> | <i>Flush current NAT configuration.</i> | see page 845 |
| <i>nat ifconfig</i> | <i>Modify address translation on an IP interface.</i> | see page 846 |
| <i>nat iflist</i> | <i>Display all interfaces.</i> | see page 847 |
| <i>nat mapadd</i> | <i>Add an address mapping to a nat enabled interface.</i> | see page 848 |
| <i>nat mapdelete</i> | <i>Delete an address mapping from a nat enabled interface.</i> | see page 849 |
| <i>nat maplist</i> | <i>Display address mappings.</i> | see page 850 |
| <i>nat tmpladd</i> | <i>Add an address mapping template.</i> | see page 851 |
| <i>nat tmpldelete</i> | <i>Delete an address mapping template.</i> | see page 853 |
| <i>nat tmplinst</i> | <i>Instantiate address mapping templates for a given dynamic address.</i> | see page 854 |
| <i>nat tmplist</i> | <i>Display address mapping templates.</i> | see page 855 |

nat config

Modify global NAT configuration.

SYNTAX:

```
nat config [trace = <{disabled|enabled}>]
           [randomports = <{disabled|enabled}>]
```

where:

| | | |
|-------------|--|----------|
| trace | Enable/disable traces. | OPTIONAL |
| randomports | Enable/disable randomization of port translations. | OPTIONAL |

nat flush

Flush current NAT configuration.

nat ifconfig

Modify address translation on an IP interface.

SYNTAX:

```
nat ifconfig          intf = <{loop|Internet|LocalNetwork}>  
                    translation = <{disabled|enabled|transparent}>
```

where:

| | | |
|-------------|---|----------|
| intf | The IP interface name. | REQUIRED |
| translation | Disabled, enabled or transparent address translation. | REQUIRED |

nat iflist

Display all interfaces.

nat mapadd

Add an address mapping to a nat enabled interface.

SYNTAX:

```

nat mapadd                               intf = <{loop|Internet|LocalNetwork}>
                                           [type = <{napt|nat}>]
                                           [outside_addr = <ip-range>]
                                           [inside_addr = <ip-range>]
                                           [access_list = <ip-range>]
                                           [foreign_addr = <ip-range>]
                                           [protocol = <{ah|egp|esp|ggp|gre|hmp|icmp|
                                           icmpv6|igmp|pup|rdp|rsvp|tcp|udp|vines|xns-
                                           idp|ipv6|ipip|frag} or number>]
                                           [outside_port = <port-range>]
                                           [inside_port = <port-range>]
                                           [mode = <{auto|inbound|outbound}>]
                                           [weight = <number{0-255}>]
                                           [status = <{up|down}>]

```

where:

| | | |
|--------------|--|----------|
| intf | The IP interface name. | REQUIRED |
| type | The type of mapping. | OPTIONAL |
| outside_addr | The outside (typically public) IP address (range for NAT). | OPTIONAL |
| inside_addr | The inside (typically private) IP address (range for NAT). | OPTIONAL |
| access_list | The range of inside addresses the mapping is restricted to. | OPTIONAL |
| foreign_addr | The range of destination addresses the mapping is restricted to. | OPTIONAL |
| protocol | The IP protocol. | OPTIONAL |
| outside_port | The outside port number or range (only for NAPT). | OPTIONAL |
| inside_port | The inside port number or range (only for NAPT). | OPTIONAL |
| mode | The mode to create the portmap. | OPTIONAL |
| weight | The weight for the portmap. | OPTIONAL |
| status | The administrative state of mapping. | OPTIONAL |

nat mapdelete

Delete an address mapping from a nat enabled interface.

SYNTAX:

```
nat mapdelete          intf = <{loop|Internet|LocalNetwork}>
                       index = <number>
```

where:

| | | |
|-------|--|----------|
| intf | The IP interface name. | REQUIRED |
| index | The map index as listed by ':nat maplist'. | REQUIRED |

nat maplist

Display address mappings.

SYNTAX:

```
nat maplist [intf = <{loop|Internet|LocalNetwork}>]
            [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|------------------------|----------|
| intf | The IP interface name. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |

nat tmladd

Add an address mapping template.

SYNTAX:

```

nat tmladd [intf = <{loop|Internet|LocalNetwork}>]
           [group = <{wan|local|lan|tunnel|dmz|guest} or
           number>]
           [timeout = <number{0-65535}>]
           [type = <{napt|nat}>]
           outside_addr = <ip-range>
           [inside_addr = <ip-range>]
           [access_list = <ip-range>]
           [foreign_addr = <ip-range>]
           [protocol = <{ah|egp|esp|gpp|gre|hmp|icmp|
           icmpv6|igmp|pup|rdp|rsvp|tcp|udp|vines|xns-
           idp|ipv6|ipip|frag} or number>]
           [outside_port = <port-range>]
           [inside_port = <port-range>]
           [mode = <{auto|inbound|outbound}>]
           [weight = <number{0-255}>]
           [status = <{up|down}>]

```

where:

| | | |
|--------------|---|----------|
| intf | The IP interface name scope for this template. | OPTIONAL |
| group | The IP interface group scope for this template. | OPTIONAL |
| timeout | Lifetime (seconds) for this template. | OPTIONAL |
| type | The type of template. | OPTIONAL |
| outside_addr | The outside (typically public) IP address or index (range for NAT). | REQUIRED |
| inside_addr | The inside (typically private) IP address or index (range for NAT). | OPTIONAL |
| access_list | The range of inside addresses the template is restricted to. | OPTIONAL |
| foreign_addr | The range of destination addresses the template is restricted to. | OPTIONAL |
| protocol | The IP protocol. | OPTIONAL |
| outside_port | The outside port number or range (only for NAPT). | OPTIONAL |
| inside_port | The inside port number or range (only for NAPT). | OPTIONAL |
| mode | The mode to create the portmap. | OPTIONAL |
| weight | The weight to be used for the template instance(s). | OPTIONAL |

| | | |
|--------|---------------------------------------|----------|
| status | The administrative state of template. | OPTIONAL |
|--------|---------------------------------------|----------|

nat tmpldelete

Delete an address mapping template.

SYNTAX:

```
nat tmpldelete          index = <number>
```

where:

| | | |
|-------|---|----------|
| index | The template index as listed by ':nat tmplist'. | REQUIRED |
|-------|---|----------|

nat tmlinst

Instantiate address mapping templates for a given dynamic address.

SYNTAX:

```
nat tmlinst          intf = <{loop|Internet|LocalNetwork}>
                    addr_index = <ipv4-address>
                    dynamic_addr = <ipv4-address>
```

where:

| | | |
|--------------|---|----------|
| intf | The IP interface name. | REQUIRED |
| addr_index | The outside IP address index/key to instantiate for. | REQUIRED |
| dynamic_addr | The dynamic address to substitute the index/key with. | REQUIRED |

nat tmplist

Display address mapping templates.

SYNTAX:

```
nat tmplist [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-------------------|----------|
| expand | Expanded listing. | OPTIONAL |
|--------|-------------------|----------|

ppp Commands

| | | |
|---------------------------|---|--------------|
| <i>ppp flush</i> | <i>Flush all PPP interfaces.</i> | see page 858 |
| <i>ppp ifadd</i> | <i>Create a new PPP interface.</i> | see page 859 |
| <i>ppp ifattach</i> | <i>Attach a PPP interface.</i> | see page 860 |
| <i>ppp ifconfig</i> | <i>Modify a PPP interface.</i> | see page 861 |
| <i>ppp ifdelete</i> | <i>Delete a PPP interface.</i> | see page 864 |
| <i>ppp ifdetach</i> | <i>Detach a PPP interface.</i> | see page 865 |
| <i>ppp iflist</i> | <i>Display the PPP interfaces.</i> | see page 866 |
| <i>ppp ifscan</i> | <i>Scan a PPP interface for available interfaces.</i> | see page 867 |
| <i>ppp relay flush</i> | <i>Remove all ethernet interfaces from the PPP relay agent list and terminate all</i> | see page 868 |
| <i>ppp relay ifadd</i> | <i>Add an ethernet interface to the PPP relay list.</i> | see page 869 |
| <i>ppp relay ifconfig</i> | <i>Modify an ethernet interface from the PPP relay agent list.</i> | see page 870 |
| <i>ppp relay ifdelete</i> | <i>Delete an ethernet interface from the PPP relay agent list.</i> | see page 871 |
| <i>ppp relay iflist</i> | <i>Display all ethernet interfaces added to the PPP relay agent list.</i> | see page 872 |
| <i>ppp relay sesslist</i> | <i>Display all active PPP relay sessions.</i> | see page 873 |
| <i>ppp rtadd</i> | <i>Add a route to the routing table when PPP link comes up.</i> | see page 874 |
| <i>ppp rtdelete</i> | <i>Delete the route for a PPP link.</i> | see page 875 |

ppp flush

Flush all PPP interfaces.

ppp ifadd

Create a new PPP interface.

SYNTAX:

```
ppp ifadd                intf = <string>
```

where:

| | | |
|------|--|----------|
| intf | The name for the new PPP interface. If not specified, the destination will double as interface name. | REQUIRED |
|------|--|----------|

ppp ifattach

Attach a PPP interface.

SYNTAX:

```
ppp ifattach          intf = <{Internet}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the PPP interface. | REQUIRED |
|------|--------------------------------|----------|

ppp ifconfig

Modify a PPP interface.

SYNTAX:

```
ppp ifconfig          intf = <{Internet}>
                    [dest = <{RELAY|eth_ge}>]
                    [user = <string>]
                    [password = <password>]
                    [acname = <quoted string>]
                    [servicename = <quoted string>]
                    [pppoebackoffscale = <number{1-1024}>]
                    [pppoebackofflimit = <number{1-10}>]
                    [ppp-max-payload = <{disabled|enabled}>]
                    [class = <{0|1|2|3|4|5|6|7|8|9|10|11|12|13|14|
                    15}>]
                    [pool = <{none}>]
                    [accomp = <{enabled|disabled|negotiate}>]
                    [trace = <{disabled|enabled}>]
                    [concentrator = <{disabled|enabled}>]
                    [auth = <{pap|chap|auto}>]
                    [restart = <{disabled|enabled}>]
                    [retryinterval = <number{0-65535}>]
                    [passive = <{disabled|enabled}>]
                    [silent = <{disabled|enabled}>]
                    [echotolerance = <number{1-100}>]
                    [echo = <number>]
                    [mru = <number{256-1600}>]
                    [laddr = <ipv4-address>]
                    [raddr = <ipv4-address>]
                    [netmask = <ip-mask(dotted or cidr)>]
                    [format = <{cidr|dotted|none}>]
                    [subnetfirstip = <{disabled|enabled}>]
                    [savepwd = <{disabled|enabled}>]
                    [demanddial = <{disabled|enabled}>]
                    [doddelay = <number{0-3600}>]
                    [primdns = <ipv4-address>]
                    [secdns = <ipv4-address>]
                    [dnsmetric = <number{0-100}>]
                    [idletime = <number{0-1000000}>]
                    [idletrigger = <{RxTx|Rx|Tx}>]
                    [unnumbered = <{disabled|enabled}>]
                    [ipcpstartinterval = <number{0-65535}>]
                    [ipv6cpstartinterval = <number{0-65535}>]
                    [ipv4 = <{disabled|enabled}>]
                    [ipv6 = <{disabled|enabled}>]
                    [lintfid6 = <ipv6-address>]
                    [rintfid6 = <ipv6-address>]
                    [gracefulrestart = <{disabled|enabled}>]
```

where:

| | | |
|-------------------|---|----------|
| intf | The name of the PPP interface to configure. | REQUIRED |
| dest | The destination interface for this PPP interface. | OPTIONAL |
| user | The username for remote PAP/CHAP authentication. | OPTIONAL |
| password | The password for remote PAP/CHAP authentication. | OPTIONAL |
| acname | The access concentrator name for a PPP session. | OPTIONAL |
| servicename | The service name for a PPP session. | OPTIONAL |
| pppoebackoffscale | The pppoe exponential backoff scale for a PPP session. | OPTIONAL |
| pppoebackofflimit | The pppoe exponential backoff limit for a PPP session. | OPTIONAL |
| ppp-max-payload | Enable/Disable the use of the PPPoE ppp-max-payload tag. | OPTIONAL |
| class | The prio class of the PPP packets. | OPTIONAL |
| pool | Acquire IP subnet and assign it to a free DHCP pool. | OPTIONAL |
| accomp | Try to negotiate PPP address & control field compression (LCP ACCOMP). | OPTIONAL |
| trace | Enable verbose console logging. | OPTIONAL |
| concentrator | The access concentrator is on this side of the PPP connection. | OPTIONAL |
| auth | Authentication protocol to be used. | OPTIONAL |
| restart | Automatically restart when LCP link goes down. | OPTIONAL |
| retryinterval | The number of seconds between retries. | OPTIONAL |
| passive | When LCP times out, put link in a listening state. | OPTIONAL |
| silent | Do not send anything at startup, just listen for incoming LCP messages. | OPTIONAL |
| echotolerance | Number of failed LCP echo requests needed to trigger a link failure. | OPTIONAL |
| echo | LCP echo request interval. | OPTIONAL |
| mru | Negotiate maximum packet size we can handle. | OPTIONAL |
| laddr | Negotiate this IP address at our side of the link. | OPTIONAL |
| raddr | Negotiate this IP address at remote side of the link. | OPTIONAL |
| netmask | Negotiate IP subnet mask at remote side of the link. | OPTIONAL |
| format | The format used to represent the IP subnet. | OPTIONAL |
| subnetfirstip | Take the first ip address out of the received IP as local address. | OPTIONAL |

| | | |
|-----------------------|--|----------|
| savepwd | Select whether or not password is saved. | OPTIONAL |
| demanddial | Enable dial-on-demand feature. Nothing happens until packets are sent to this PPP interface. | OPTIONAL |
| doddelay | During this initial interval (seconds) packets do not trigger PPP interface. | OPTIONAL |
| primdns | Negotiate this IP address as primary DNS server. | OPTIONAL |
| secdns | Negotiate this IP address as secondary DNS server. | OPTIONAL |
| dnsmetric | DNS route metric to be used for the negotiated DNS servers. | OPTIONAL |
| idletime | Maximum time the link may be idle (seconds). | OPTIONAL |
| idletrigger | Consider the link being idle if no traffic is sent and/or received during the idle time. | OPTIONAL |
| unnumbered | Take local IP address from 'laddr' field and remote IP address from the pool. SVC only. | OPTIONAL |
| ipcprestartinterval | The number of seconds between ipcp restarts. | OPTIONAL |
| ipv6cprestartinterval | The number of seconds between ipv6cp restarts. | OPTIONAL |
| ipv4 | Enable ipcp. | OPTIONAL |
| ipv6 | Enable ipv6cp. | OPTIONAL |
| lintfid6 | The 64 bit ipv6 local interface identifier. | OPTIONAL |
| rintfid6 | The 64 bit ipv6 remote interface identifier. | OPTIONAL |
| gracefulrestart | Send LCP termination request before establishing new PPP link | OPTIONAL |

ppp ifdelete

Delete a PPP interface.

SYNTAX:

```
ppp ifdelete                intf = <{Internet}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the PPP interface. | REQUIRED |
|------|--------------------------------|----------|

ppp ifdetach

Detach a PPP interface.

SYNTAX:

```
ppp ifdetach          intf = <{}>
```

where:

| | | |
|------|--------------------------------|----------|
| intf | The name of the PPP interface. | REQUIRED |
|------|--------------------------------|----------|

ppp iflist

Display the PPP interfaces.

SYNTAX:

```
ppp iflist [intf = <{Interface}>]
```

where:

| | | |
|------|------------------------------|----------|
| intf | The name of a PPP interface. | OPTIONAL |
|------|------------------------------|----------|

ppp ifscan

Scan a PPP interface for available interfaces.

SYNTAX:

```
ppp ifscan                intf = <{Internet}>
                           [time = <number{0-36000}>]
```

where:

| | | |
|------|---|----------|
| intf | The name of the PPP interface to scan. | REQUIRED |
| time | The time to scan for services (in seconds). | OPTIONAL |

ppp relay flush

Remove all ethernet interfaces from the PPP relay agent list and terminate all

ppp relay ifadd

Add an ethernet interface to the PPP relay list.

SYNTAX:

```
ppp relay ifadd          intf = <{eth_ge}>
```

where:

| | | |
|------|--|----------|
| intf | The ethernet intf to be added to the PPP relay agent list. | REQUIRED |
|------|--|----------|

ppp relay ifconfig

Modify an ethernet interface from the PPP relay agent list.

SYNTAX:

```
ppp relay ifconfig          intf = <{bridge|ethoa_8_35}>
                           hwaddr = <hardware-address>
```

where:

| | | |
|--------|---|----------|
| intf | The ethernet intf to be added to the PPP relay agent list. | REQUIRED |
| hwaddr | The hardware address (e.g. Ethernet MAC address) of this interface. | REQUIRED |

ppp relay ifdelete

Delete an ethernet interface from the PPP relay agent list.

SYNTAX:

```
ppp relay ifdelete          intf = <{bridge|ethoa_8_35}>
```

where:

| | | |
|------|--|----------|
| intf | The ethernet intf to be added to the PPP relay agent list. | REQUIRED |
|------|--|----------|

ppp relay iflist

Display all ethernet interfaces added to the PPP relay agent list.

ppp relay sesslist

Display all active PPP relay sessions.

ppp rtadd

Add a route to the routing table when PPP link comes up.

SYNTAX:

```
ppp rtadd                intf = <{Internet}>
                        dst = <ipv4-address>
                        [dstmsk = <ip-mask(dotted or cidr)>]
                        [label = <{None|Interactive|Local|Management|
SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
default}>]
                        [src = <ipv4-address>]
                        [srcmsk = <ip-mask(dotted or cidr)>]
                        [metric = <number{0-100}>]
```

where:

| | | |
|--------|--|----------|
| intf | The name of a PPP interface. | REQUIRED |
| dst | The IP destination address specification for the route to be added when the link comes up. | REQUIRED |
| dstmsk | The IP destination mask. Special values : 1 = remote net; 32 = remote host; | OPTIONAL |
| label | The name of the label. | OPTIONAL |
| src | The IP source address specification. i.e. who can use this link. | OPTIONAL |
| srcmsk | The IP source mask. | OPTIONAL |
| metric | The route metric. | OPTIONAL |

ppp rtdelete

Delete the route for a PPP link.

SYNTAX:

```
ppp rtdelete          intf = <{Internet}>
```

where:

| | | |
|------|--|----------|
| intf | The PPP interface name for which to delete the route settings. | REQUIRED |
|------|--|----------|

pptp Commands

| | | |
|------------------------|---|--------------|
| <i>pptp flush</i> | <i>Flushes the PPTP configuration.</i> | see page 878 |
| <i>pptp ifadd</i> | <i>Adds a PPTP profile (backwards compatible with previous release, use profiles)</i> | see page 879 |
| <i>pptp list</i> | <i>Shows PPTP configuration.</i> | see page 880 |
| <i>pptp profadd</i> | <i>Defines a new PPTP profile.</i> | see page 881 |
| <i>pptp profdelete</i> | <i>Deletes a PPTP profile.</i> | see page 882 |
| <i>pptp proflist</i> | <i>Lists PPTP profiles.</i> | see page 883 |

pptp flush

Flushes the PPTP configuration.

pptp ifadd

Adds a PPTP profile (backwards compatible with previous release, use profiles

SYNTAX:

```
pptp ifadd                dest = <string>
                           [rate = <number{10-10000}>]
                           [encaps = <{vcmux|nlpid}>]
                           [ac = <{never|always|keep}>]
```

where:

| | | |
|--------|--|----------|
| dest | The WAN destination for this PPTP tunnel. Typically a phonebook name. | REQUIRED |
| rate | Transmit speed in kbits/s for the WAN link. | OPTIONAL |
| encaps | The WAN protocol encapsulation. | OPTIONAL |
| ac | Enable/disable sending address and control field (0xFF03) on the WAN link. | OPTIONAL |

pptp list

Shows PPTP configuration.

pptp profadd

Defines a new PPTP profile.

SYNTAX:

```
pptp profadd          name = <string>
                      [qos = <{default}>]
                      [encaps = <{vcmux|nlpid}>]
                      [ac = <{never|always|keep}>]
```

where:

| | | |
|--------|--|----------|
| name | The name for the new PPTP profile. | REQUIRED |
| qos | The name of the qosbook entry, containing the settings for this profile. | OPTIONAL |
| encaps | The WAN protocol encapsulation to be used with this profile. | OPTIONAL |
| ac | Enable/disable sending address and control field (0xFF03) on the WAN link. | OPTIONAL |

pptp profdelete

Deletes a PPTP profile.

SYNTAX:

```
pptp profdelete name = <>
```

where:

| | | |
|------|------------------------------------|----------|
| name | The name of the profile to delete. | REQUIRED |
|------|------------------------------------|----------|

pptp proflist

Lists PPTP profiles.

printersharing Commands

| | | |
|--|--|--------------|
| <i>printersharing LPD config</i> | <i>To enable/disable LPD service.</i> | see page 886 |
| <i>printersharing LPD list</i> | <i>To display LPD service context.</i> | see page 887 |
| <i>printersharing LPD queue add</i> | <i>Add an option.</i> | see page 888 |
| <i>printersharing LPD queue delete</i> | <i>Delete an option.</i> | see page 889 |
| <i>printersharing LPD queue list</i> | <i>List all options.</i> | see page 890 |

printersharing LPD config

To enable/disable LPD service.

SYNTAX:

```
printersharing LPD config [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|---------------------------------------|----------|
| state | Enabled/disabled LPD printer service. | OPTIONAL |
|-------|---------------------------------------|----------|

printersharing LPD list

To display LPD service context.

printersharing LPD queue add

Add an option.

SYNTAX:

```
printersharing LPD queue add    name = <string>
                                [type = <{Feed|Raw}>]
                                [default = <{no|yes}>]
```

where:

| | | |
|---------|-------------------|----------|
| name | LPD queue name. | REQUIRED |
| type | Queue Type | OPTIONAL |
| default | Set default queue | OPTIONAL |

printersharing LPD queue delete

Delete an option.

SYNTAX:

```
printersharing LPD queue      name = <string>
delete
```

where:

| | | |
|------|-----------------|----------|
| name | LPD queue name. | REQUIRED |
|------|-----------------|----------|

printersharing LPD queue list

List all options.

ptrace Commands

| | | |
|---------------------------------|---|--------------|
| <i>ptrace action add</i> | <i>Add an action</i> | see page 892 |
| <i>ptrace action delete</i> | <i>Delete an action</i> | see page 893 |
| <i>ptrace action list</i> | <i>List all actions</i> | see page 894 |
| <i>ptrace action modify</i> | <i>Modify an action</i> | see page 895 |
| <i>ptrace add</i> | <i>Add a filter/action pair (=rule)</i> | see page 896 |
| <i>ptrace debug traceconfig</i> | <i>Modify trace configuration</i> | see page 897 |
| <i>ptrace delete</i> | <i>Delete a rule</i> | see page 898 |
| <i>ptrace filter add</i> | <i>Add a filter</i> | see page 899 |
| <i>ptrace filter delete</i> | <i>Delete a filter</i> | see page 900 |
| <i>ptrace filter list</i> | <i>List all filters</i> | see page 901 |
| <i>ptrace filter modify</i> | <i>Modify a filter</i> | see page 902 |
| <i>ptrace flush</i> | <i>Flush all settings</i> | see page 903 |
| <i>ptrace list</i> | <i>List all rules</i> | see page 904 |
| <i>ptrace modify</i> | <i>Modify a rule</i> | see page 905 |

ptrace action add

Add an action

SYNTAX:

```
ptrace action add name = <string>
```

where:

| name | Action name | REQUIRED |
|------|-------------|----------|
|------|-------------|----------|

ptrace action delete

Delete an action

SYNTAX:

```
ptrace action delete          name = <>
```

where:

| | | |
|------|-------------|----------|
| name | Action name | REQUIRED |
|------|-------------|----------|

ptrace action list

List all actions

ptrace action modify

Modify an action

SYNTAX:

```
ptrace action modify      name = <>
                          type = <{dump|mirror|}>
                          intf = <{}>
                          len = <number>
```

where:

| | | |
|------|----------------------------------|----------|
| name | Action name | REQUIRED |
| type | Action type | REQUIRED |
| intf | Device on which to mirror frames | REQUIRED |
| len | Nbr of bytes to dump | REQUIRED |

ptrace add

Add a filter/action pair (=rule)

SYNTAX:

```
ptrace add                name = <string>
                          filter = <>
                          action = <>
```

where:

| | | |
|--------|-----------|----------|
| name | Rule name | REQUIRED |
| filter | Filter | REQUIRED |
| action | Action | REQUIRED |

ptrace debug traceconfig

Modify trace configuration

SYNTAX:

```
ptrace debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

ptrace delete

Delete a rule

SYNTAX:

```
ptrace delete name = <>
```

where:

| name | Rule name | REQUIRED |
|------|-----------|----------|
|------|-----------|----------|

ptrace filter add

Add a filter

SYNTAX:

```
ptrace filter add          name = <string>
```

where:

| name | Filter name | REQUIRED |
|------|-------------|----------|
|------|-------------|----------|

ptrace filter delete

Delete a filter

SYNTAX:

```
ptrace filter delete          name = <>
```

where:

| | | |
|------|-------------|----------|
| name | Filter name | REQUIRED |
|------|-------------|----------|

ptrace filter list

List all filters

ptrace filter modify

Modify a filter

SYNTAX:

```
ptrace filter modify          name = <>
                              intf = <{bridge|OBC|ethport1|RELAY|ethport2|
                              ethport3|ethport4|WLAN|virt|ethoa_8_35|
                              eth_ge}>
```

where:

| | | |
|------|------------------------------------|----------|
| name | Filter name | REQUIRED |
| intf | Interface on which to trace frames | REQUIRED |

ptrace flush

Flush all settings

ptrace list

List all rules

ptrace modify

Modify a rule

SYNTAX:

```
ptrace modify          name = <>  
                      [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|---------------------|----------|
| name | Rule name | REQUIRED |
| state | Rule enable/disable | OPTIONAL |

pwr Commands

| | | |
|------------------------------|--|--------------|
| <i>pwr config</i> | <i>Modify/Display ECO-manager configuration</i> | see page 908 |
| <i>pwr debug traceconfig</i> | <i>Enable/disable the ECO manager traces</i> | see page 909 |
| <i>pwr wlan-pwr-options</i> | <i>Modify/Display the WLAN power control options</i> | see page 910 |

pwr config

Modify/Display ECO-manager configuration

SYNTAX:

```
pwr config [eco-manager = <{disabled|enabled}>]
           [cpu-microsleep = <{disabled|enabled}>]
           [cpu-lowspeed = <{disabled|enabled}>]
           [usb-controller = <{disabled|enabled}>]
           [wlan-pwrcontrol = <{disabled|enabled}>]
           [eth-phy = <{disabled|enabled}>]
```

where:

| | | |
|-----------------|---|----------|
| eco-manager | (Enables / Disables the ECO-manager). | OPTIONAL |
| cpu-microsleep | (Allows the CPU to use low power instructions). | OPTIONAL |
| cpu-lowspeed | (Allows the CPU to adjust its internal clock). | OPTIONAL |
| usb-controller | (Enables / Disables the USB-Controller) | OPTIONAL |
| wlan-pwrcontrol | (Enables / Disables Wireless LAN (WLAN) power control). | OPTIONAL |
| eth-phy | (Enables / Disables the Ethernet Phy power control) | OPTIONAL |

pwr debug traceconfig

Enable/disable the ECO manager traces

SYNTAX:

```
pwr debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|---------------------------------------|----------|
| state | enable/disable the ECO manager traces | OPTIONAL |
|-------|---------------------------------------|----------|

pwr wlan-pwr-options

Modify/Display the WLAN power control options

SYNTAX:

```
pwr wlan-pwr-options          [t-on = <number{1-600}>]
                               [t-off = <number{1-600}>]
                               [t-ext = <number{1-600}>]
                               [slow-radio-toggle = <{disabled|enabled}>]
                               [fast-radio-toggle = <{disabled|enabled}>]
                               [single-rxchain = <{disabled|enabled}>]
```

where:

| | | |
|-------------------|-----------------------------------|----------|
| t-on | Slow toggle on-time (s) | OPTIONAL |
| t-off | Slow toggle off-time(s) | OPTIONAL |
| t-ext | Slow toggle on-time Extension (s) | OPTIONAL |
| slow-radio-toggle | Slow toggle of radio state | OPTIONAL |
| fast-radio-toggle | Fast toggle of radio state | OPTIONAL |
| single-rxchain | Use single rx chain | OPTIONAL |

script Commands

| | | |
|----------------------|--|--------------|
| <i>script add</i> | <i>Add line to script.</i> | see page 912 |
| <i>script delete</i> | <i>Delete complete script or line from script.</i> | see page 913 |
| <i>script flush</i> | <i>Flush scripts.</i> | see page 914 |
| <i>script list</i> | <i>List script.</i> | see page 915 |
| <i>script run</i> | <i>Run script.</i> | see page 916 |

script add

Add line to script.

SYNTAX:

```
script add          name = <string>
                   [index = <number>]
                   command = <quoted string>
```

where:

| | | |
|---------|------------------------|----------|
| name | Name of script. | REQUIRED |
| index | Line number (0 = add). | OPTIONAL |
| command | Command. | REQUIRED |

script delete

Delete complete script or line from script.

SYNTAX:

```
script delete name = <{autopvc_add_qos|autopvc_delete_qos|
autopvc_add_bridge|autopvc_delete_pppoerelay|
autopvc_add_ipoa|autopvc_delete_ipoa|
autopvc_add_ethoa|autopvc_delete_ethoa|
autopvc_add_pppoa|autopvc_delete_pppoa|
autopvc_add_pppoe|autopvc_delete_pppoe|
autopvc_change_qos|wlbrintfadd|wlbrintfdel}>
[index = <number>]
```

where:

| name | Name of script. | REQUIRED |
|-------|-----------------|----------|
| index | Line number. | OPTIONAL |

script flush

Flush scripts.

script list

List script.

SYNTAX:

```
script list [name = <{autopvc_add_qos|autopvc_delete_qos|
autopvc_add_bridge|autopvc_delete_pppoerelay|
autopvc_add_ipoa|autopvc_delete_ipoa|
autopvc_add_ethoa|autopvc_delete_ethoa|
autopvc_add_pppoa|autopvc_delete_pppoa|
autopvc_add_pppoe|autopvc_delete_pppoe|
autopvc_change_qos|wlbrintfadd|wlbrintfdel}>]
```

where:

| name | Name of script. | OPTIONAL |
|------|-----------------|----------|
|------|-----------------|----------|

script run

Run script.

SYNTAX:

```
script run name = <{autopvc_add_qos|autopvc_delete_qos|
autopvc_add_bridge|autopvc_delete_pppoerelay|
autopvc_add_ipoa|autopvc_delete_ipoa|
autopvc_add_ethoa|autopvc_delete_ethoa|
autopvc_add_pppoa|autopvc_delete_pppoa|
autopvc_add_pppoe|autopvc_delete_pppoe|
autopvc_change_qos|wlbrintfadd|wlbrintfdel}>
pars = <quoted string>
```

where:

| | | |
|------|--|----------|
| name | Name of script. | REQUIRED |
| pars | Parameters separated with comma e.g. a,b,c . | REQUIRED |

service Commands

| | | |
|-------------------------------------|---|--------------|
| <i>service host add</i> | <i>Add a service.</i> | see page 918 |
| <i>service host assign</i> | <i>Assign a service to a host.</i> | see page 919 |
| <i>service host category add</i> | <i>Create/define service category.</i> | see page 920 |
| <i>service host category delete</i> | <i>Delete a service category.</i> | see page 921 |
| <i>service host category list</i> | <i>List the available service categories.</i> | see page 922 |
| <i>service host category rename</i> | <i>Rename a service category.</i> | see page 923 |
| <i>service host delete</i> | <i>Delete a service.</i> | see page 924 |
| <i>service host disable</i> | <i>Disable a service.</i> | see page 925 |
| <i>service host flush</i> | <i>Flush all services.</i> | see page 926 |
| <i>service host list</i> | <i>Display list of services.</i> | see page 927 |
| <i>service host rule add</i> | <i>Create/define service portmap.</i> | see page 928 |
| <i>service host rule delete</i> | <i>Delete a service portmap.</i> | see page 930 |
| <i>service host stats</i> | <i>Service statistics.</i> | see page 932 |
| <i>service host triggerlist</i> | <i>List all triggers.</i> | see page 933 |
| <i>service system ifadd</i> | <i>Add an interface to the access list.</i> | see page 934 |
| <i>service system ifdelete</i> | <i>Delete an interface from the access list.</i> | see page 935 |
| <i>service system ipadd</i> | <i>Add an IP address (range) to the access list.</i> | see page 936 |
| <i>service system ipdelete</i> | <i>Delete an IP address (range) from the access list.</i> | see page 937 |
| <i>service system list</i> | <i>Display services.</i> | see page 938 |
| <i>service system mapadd</i> | <i>Add a port map for a service.</i> | see page 939 |
| <i>service system mapdelete</i> | <i>Delete a port map for a service.</i> | see page 940 |
| <i>service system modify</i> | <i>Modify a service.</i> | see page 941 |

service host add

Add a service.

SYNTAX:

```
service host add          name = <quoted string>
                          [mode = <{server|client|custom}>]
                          [category = <>]
```

where:

| | | |
|----------|--|----------|
| name | The name of the service. | REQUIRED |
| mode | server, client or custom service ? | OPTIONAL |
| category | The category to which the service belongs. | OPTIONAL |

service host assign

Assign a service to a host.

SYNTAX:

```
service host assign      name = <{AIM Talk|BearShare|BitTorrent|
                        Checkpoint FW1 VPN|Counter Strike|Server
                        (World Wide Web)|HTTPS Server|iMesh|KaZaA|Mail
                        Server (SMTP)|Microsoft Remote Desktop|MSN
                        Game Zone|MSN Game Zone (DX)|NNTPServer|PPTP
                        Server|Secure Shell Server (SSH)|Steam Games|
                        TelnetServer|VNC|Xbox Live}>
                        [host = <ip-address>]
                        [log = <{disabled|enabled}>]
```

where:

| | | |
|------|-----------------------------|----------|
| name | The name of the service. | REQUIRED |
| host | The IP address of the host. | OPTIONAL |
| log | Enable/disable logging. | OPTIONAL |

service host category add

Create/define service category.

SYNTAX:

```
service host category add      name = <string>
```

where:

| | | |
|------|---------------------------|----------|
| name | The name of the category. | REQUIRED |
|------|---------------------------|----------|

service host category delete

Delete a service category.

SYNTAX:

```
service host category delete    name = <>
```

where:

| | | |
|------|---------------------------|----------|
| name | The name of the category. | REQUIRED |
|------|---------------------------|----------|

service host category list

List the available service categories.

service host category rename

Rename a service category.

SYNTAX:

```
service host category rename    name = <>
                                new_name = <string>
```

where:

| | | |
|----------|------------------------------------|----------|
| name | The name of the existing category. | REQUIRED |
| new_name | The new name of the category. | REQUIRED |

service host delete

Delete a service.

SYNTAX:

```
service host delete          name = <{AIM Talk|BearShare|BitTorrent|
                             Checkpoint FW1 VPN|Counter Strike|Server
                             (World Wide Web)|HTTPS Server|iMesh|KaZaA|Mail
                             Server (SMTP)|Microsoft Remote Desktop|MSN
                             Game Zone|MSN Game Zone (DX)|NNTPServer|PPTP
                             Server|Secure Shell Server (SSH)|Steam Games|
                             TelnetServer|VNC|Xbox Live}>
```

where:

| name | The name of the service. | REQUIRED |
|------|--------------------------|----------|
|------|--------------------------|----------|

service host disable

Disable a service.

SYNTAX:

```
service host disable [name = <{AIM Talk|BearShare|BitTorrent|
Checkpoint FW1 VPN|Counter Strike|Server
(World Wide Web)|HTTPS Server|iMesh|KaZaA|Mail
Server (SMTP)|Microsoft Remote Desktop|MSN
Game Zone|MSN Game Zone (DX)|NNTPServer|PPTP
Server|Secure Shell Server (SSH)|Steam Games|
TelnetServer|VNC|Xbox Live}>]
```

where:

| | | |
|------|--------------------------|----------|
| name | The name of the service. | OPTIONAL |
|------|--------------------------|----------|

service host flush

Flush all services.

service host list

Display list of services.

SYNTAX:

```
service host list [name = <{AIM Talk|BearShare|BitTorrent|
Checkpoint FW1 VPN|Counter Strike|Server
(World Wide Web)|HTTPS Server|iMesh|KaZaA|Mail
Server (SMTP)|Microsoft Remote Desktop|MSN
Game Zone|MSN Game Zone (DX)|NNTPServer|PPTP
Server|Secure Shell Server (SSH)|Steam Games|
TelnetServer|VNC|Xbox Live}>]
```

where:

| name | The name of the service. | OPTIONAL |
|------|--------------------------|----------|
|------|--------------------------|----------|

service host rule add

Create/define service portmap.

SYNTAX:

```
service host rule add      name = <{AIM Talk|BearShare|BitTorrent|
                          Checkpoint FW1 VPN|Counter Strike|Server
                          (World Wide Web)|HTTPS Server|iMesh|KaZaA|Mail
                          Server (SMTP)|Microsoft Remote Desktop|MSN
                          Game Zone|MSN Game Zone (DX)|NNTPServer|PPTP
                          Server|Secure Shell Server (SSH)|Steam Games|
                          TelnetServer|VNC|Xbox Live}>
                          [protocol = <{any|tcp|udp}>]
                          [baseport = <{undefined|at-echo|at-nbp|at-
                          rtmp|at-zis|auth|bgp|biff|bootpc|exec|finger|
                          ftp|ftp-data|gopher|h323|httpproxy|ike|ils|
                          imap2|imap3|ingres-net|ipcserv|ipx|irc-o|
                          irc-u|kerberos|ldap|login|netbios-dgm|netbios-
                          ns|netbios-ssn|netwall|netware-ip|new-rwho|
                          nfd|nicname|nntp|ntalk|ntp|pcmail-srv|pop2|
                          pop3|printer|qotd|realaudio|rip|rtelnet|rtsp|
                          sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
                          sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
                          telnet|time|timed|tftp|ulistserv|utime|uucp|
                          uucp-rlogin|who|www-http|whoami|xwindows} or
                          number>]
                          portrange = <port-range>
                          [triggerport = <{undefined|at-echo|at-nbp|
                          at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
                          finger|ftp|ftp-data|gopher|h323|httpproxy|
                          ike|ils|imap2|imap3|ingres-net|ipcserv|ipx|
                          irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
                          netbios-ns|netbios-ssn|netwall|netware-ip|new-
                          rwho|nfd|nicname|nntp|ntalk|ntp|pcmail-srv|
                          pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
                          rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
                          sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
                          telnet|time|timed|tftp|ulistserv|utime|uucp|
                          uucp-rlogin|who|www-http|whoami|xwindows}
                          ornumber>]
                          [triggerprotocol = <{any|tcp|udp}>]
                          [mode = <{inbound|outbound|auto}>]
```

where:

| | | |
|-------------|--------------------------------|----------|
| name | The name of the service. | REQUIRED |
| protocol | Protocol type. | OPTIONAL |
| baseport | Inbound base port. | OPTIONAL |
| portrange | The outbound portrange. | REQUIRED |
| triggerport | Defines outbound trigger port. | OPTIONAL |

| | | |
|-----------------|-------------------------------|----------|
| triggerprotocol | Protocol of the trigger port. | OPTIONAL |
| mode | Port map mode. | OPTIONAL |

service host rule delete

Delete a service portmap.

SYNTAX:

```
service host rule delete      name = <{AIM Talk|BearShare|BitTorrent|
                             Checkpoint FW1 VPN|Counter Strike|Server
                             (World Wide Web)|HTTPS Server|iMesh|KaZaA|Mail
                             Server (SMTP)|Microsoft Remote Desktop|MSN
                             Game Zone|MSN Game Zone (DX)|NNTPServer|PPTP
                             Server|Secure Shell Server (SSH)|Steam Games|
                             TelnetServer|VNC|Xbox Live}>
                             [protocol = <{any|tcp|udp}>]
                             [baseport = <{undefined|at-echo|at-nbp|at-
                             rtmp|at-zis|auth|bgp|biff|bootpc|exec|finger|
                             ftp|ftp-data|gopher|h323|httpproxy|ike|ils|
                             imap2|imap3|ingres-net|ipcserv|ipx|irc-o|
                             irc-u|kerberos|ldap|login|netbios-dgm|netbios-
                             ns|netbios-ssn|netwall|netware-ip|new-rwho|
                             nfds|nicname|nntp|ntalk|ntp|pcmail-srv|pop2|
                             pop3|printer|qotd|realaudio|rip|rtelnet|rtsp|
                             sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
                             sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
                             telnet|time|timed|tftp|ulistserv|utime|uucp|
                             uucp-rlogin|who|www-http|whoami|xwindows} or
                             number>]
                             portrange = <port-range>
                             [triggerport = <{undefined|at-echo|at-nbp|
                             at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
                             finger|ftp|ftp-data|gopher|h323|httpproxy|
                             ike|ils|imap2|imap3|ingres-net|ipcserv|ipx|
                             irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
                             netbios-ns|netbios-ssn|netwall|netware-ip|new-
                             rwho|nfds|nicname|nntp|ntalk|ntp|pcmail-srv|
                             pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
                             rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
                             sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
                             telnet|time|timed|tftp|ulistserv|utime|uucp|
                             uucp-rlogin|who|www-http|whoami|xwindows}
                             ornumber>]
                             [triggerprotocol = <{any|tcp|udp}>]
                             [mode = <{inbound|outbound|auto}>]
```

where:

| name | The name of the service. | REQUIRED |
|-------------|--------------------------------|----------|
| protocol | Protocol type. | OPTIONAL |
| baseport | Inbound base port. | OPTIONAL |
| portrange | The outbound portrange. | REQUIRED |
| triggerport | Defines outbound trigger port. | OPTIONAL |

| | | |
|-----------------|-------------------------------|----------|
| triggerprotocol | Protocol of the trigger port. | OPTIONAL |
| mode | Port map mode. | OPTIONAL |

service host stats

Service statistics.

service host triggerlist

List all triggers.

service system ifadd

Add an interface to the access list.

SYNTAX:

```
service system ifadd          name = <{PPTP|HTTP|HTTPS|webservice|
                               FTP|TELNET|RIP-Query|DNS-S|SNMPV3_AGENT|
                               IPv6_REDIR}>
                               [group = <{wan|local|lan|tunnel|dmz|guest} or
                               number>]
                               [intf = <{loop|Internet|LocalNetwork}>]
```

where:

| | | |
|-------|---|----------|
| name | The name of the service for this access list. | REQUIRED |
| group | The interface group for this access list. | OPTIONAL |
| intf | The interface for this access list. | OPTIONAL |

service system ifdelete

Delete an interface from the access list.

SYNTAX:

```
service system ifdelete      name = <{PPTP|HTTP|HTTPS|webservice|
                             FTP|TELNET|RIP-Query|DNS-S|SNMPV3_AGENT|
                             IPv6_REDIR}>
                             [group = <{wan|local|lan|tunnel|dmz|guest} or
                             number>]
                             [intf = <{loop|Internet|LocalNetwork}>]
```

where:

| | | |
|-------|---|----------|
| name | The name of the service for this access list. | REQUIRED |
| group | The interface group for this access list. | OPTIONAL |
| intf | The interface for this access list. | OPTIONAL |

service system ipadd

Add an IP address (range) to the access list.

SYNTAX:

```
service system ipadd          name = <{PPTP|HTTP|HTTPS|webservice|
                               FTP|TELNET|RIP-Query|DNS-S|SNMPV3_AGENT|
                               IPv6_REDIR}>
                               ip = <ip-range>
```

where:

| | | |
|------|---|----------|
| name | The name of the service for this access list. | REQUIRED |
| ip | The IP address (range) for this access list. | REQUIRED |

service system ipdelete

Delete an IP address (range) from the access list.

SYNTAX:

```
service system ipdelete      name = <{PPTP|HTTP|HTTPS|webservice|
                             FTP|TELNET|RIP-Query|DNS-S|SNMPV3_AGENT|
                             IPv6_REDIR}>
                             ip = <ip-range>
```

where:

| | | |
|------|---|----------|
| name | The name of the service for this access list. | REQUIRED |
| ip | The IP address (range) for this access list. | REQUIRED |

service system list

Display services.

SYNTAX:

```
service system list [name = <{Remote-MBus | PPTP | PPTPD | PPTPGRE |
SNTP | SNTP-S | SLA_ICMP_PING | C | FTP | TELNET |
RIP | RIP-Query | IGMP-Proxy | MLD-Proxy | DNS-
S | DNS-S-UDP | DNS-S-TCP | DNS-C | DYNAMIC_DNS |
dyndns | statdns | custom | No-IP | DtDNS | gnudip |
DHCP-S | DHCPv6-S | DHCP-R | DHCPv6-R | DHCPv6-R-
C | DHCPv6-R-SR | DHCP-C | DHCPv6-C | SNMPV3_AGENT |
SNMPV3_TRAPS | MDAP | CWMP-C | CWMP-S | UPGD-C | SSDP |
GRE | IPIP | IP6TO4 | SIP_SERVER | SIP_SERVER_SIG |
SIP_SERVER RTP | VOIP_SIP | VOIP_SIP RTP |
VOIP_SIP_SIG | VOIP_SIP_UDP | VOIP_SIP_TCP |
IP_COMMANDS | ICMP_PING | ICMPv6_PING | SENDTO |
UDP_TRACEROUTE | HTTPPROBE | PING_RESPONDER |
PINGv6_RESP | IP_REDIR | IPv6_MANAGEMENT | MLD |
NDSOL | NDADV | RTSOL | RTADV | IPv6_REDIR}>]
[expand = <{disabled|enabled}>]
[dynamics = <{disabled|enabled}>]
[members = <{disabled|enabled}>]
```

where:

| | | |
|----------|--------------------------------|----------|
| name | The name of the service. | OPTIONAL |
| expand | Expanded listing. | OPTIONAL |
| dynamics | Display dynamic services. | OPTIONAL |
| members | Display service group members. | OPTIONAL |

service system mapadd

Add a port map for a service.

SYNTAX:

```
service system mapadd          name = <{PPTP|HTTP|HTTPS|webservice|HTTPI|FTP|
                                TELNET|DNS-S|SNMPV3_AGENT|MDAP|SSDP}>
                                intf = <{loop|Internet|LocalNetwork}>
                                port = <{undefined|at-echo|at-nbp|at-rtmp|at-
                                        zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
                                        gopher|h323|httpproxy|ike|ils|imap2|imap3|
                                        ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
                                        ldap|login|netbios-dgm|netbios-ns|netbios-
                                        ssn|netwall|netware-ip|new-rwho|nfs|nicname|
                                        nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
                                        gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                                        snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                                        sunrpc|syslog|sysstat|talk|telnet|time|timed|
                                        tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
                                        http|whoami|xwindows} or number>
```

where:

| | | |
|------|---------------------------------------|----------|
| name | The name of the service for this map. | REQUIRED |
| intf | The interface for this map. | REQUIRED |
| port | The port for this map. | REQUIRED |

service system mapdelete

Delete a port map for a service.

SYNTAX:

```
service system mapdelete      name = <{PPTP|HTTP|HTTPS|webservice|HTTPI|FTP|
                                TELNET|DNS-S|SNMPV3_AGENT|MDAP|SSDP}>
                                intf = <{loop|Internet|LocalNetwork}>
                                port = <{undefined|at-echo|at-nbp|at-rtmp|at-
                                        zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
                                        gopher|h323|httpproxy|ike|ils|imap2|imap3|
                                        ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
                                        ldap|login|netbios-dgm|netbios-ns|netbios-
                                        ssn|netwall|netware-ip|new-rwho|nfs|nicname|
                                        nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
                                        gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                                        snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                                        sunrpc|syslog|sysstat|talk|telnet|time|timed|
                                        tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
                                        http|whoami|xwindows} or number>
```

where:

| | | |
|------|---------------------------------------|----------|
| name | The name of the service for this map. | REQUIRED |
| intf | The interface for this map. | REQUIRED |
| port | The port for this map. | REQUIRED |

service system modify

Modify a service.

SYNTAX:

```
service system modify name = <{Remote-MBus|PPTP|PPTPD|PPTPGRE|SNTP|
SNTP-S|SLA_ICMP_PING|C|FTP|TELNET|RIP|IGMP-
Proxy|MLD-Proxy|DNS-S|DNS-C|DHCP-S|DHCPv6-S|
DHCP-R|DHCPv6-R-C|DHCPv6-R-SR|DHCP-C|DHCPv6-
C|SNMPV3_AGENT|SNMPV3_TRAPS|MDAP|CWMP-C|CWMP-
S|UPGD-C|SSDP|GRE|IPIP|IP6TO4|SIP_SERVER|
SIP_SERVER_SIG|SIP_SERVER_RTP|VOIP_SIP|
VOIP_SIP_RTP|VOIP_SIP_SIG|IP_COMMANDS|
PING_RESPONDER|PINGv6_RESP|IP_REDIR|
IPv6_MANAGEMENT|IPv6_REDIR}>
[state = <{disabled|enabled}>]
[port = <{undefined|at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
gopher|h323|httpproxy|ike|ils|imap2|imap3|
ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
ldap|login|netbios-dgm|netbios-ns|netbios-
ssn|netwall|netware-ip|new-rwho|nfsd|nicname|
nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
sunrpc|syslog|sysstat|talk|telnet|time|timed|
tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
http|whoami|xwindows} or number>]
[dynportrange = <port-range>]
[qoslabel = <{None|Interactive|Local|
Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
VoIP-Signal|default}>]
[routelabel = <{None|Interactive|Local|
Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
VoIP-Signal|default}>]
[srcintf = <{loop|Internet|LocalNetwork}>]
[log = <{disabled|enabled}>]
[forward = <{disabled|enabled}>]
[natpmweight = <number{0-255}>]
```

where:

| parameter | description | required |
|--------------|--|----------|
| name | The name of the service. | REQUIRED |
| state | Disable/Enable this service. | OPTIONAL |
| port | The port of the service. | OPTIONAL |
| dynportrange | The dynamic port range for this service. | OPTIONAL |
| qoslabel | QOS label for service data. | OPTIONAL |
| routelabel | Route label for service data. | OPTIONAL |

| | | |
|------------|--|----------|
| srcintf | The primary IP interface for this service. | OPTIONAL |
| log | Disable/Enable service logging. | OPTIONAL |
| forward | Disable/Enable service forwarding. | OPTIONAL |
| natpweight | The nat portmap weight for this service. | OPTIONAL |

snmp Commands

| | | |
|---------------------------------|---|--------------|
| <i>snmp community add</i> | <i>Config an SNMP community string.</i> | see page 946 |
| <i>snmp community delete</i> | <i>Delete an SNMP community string.</i> | see page 947 |
| <i>snmp community flush</i> | <i>Flush all SNMP community strings.</i> | see page 948 |
| <i>snmp community list</i> | <i>List all SNMP community strings.</i> | see page 949 |
| <i>snmp community modify</i> | <i>Modify an SNMP community string.</i> | see page 950 |
| <i>snmp config</i> | <i>Configure global SNMP parameters.</i> | see page 951 |
| <i>snmp context add</i> | <i>Add context name.</i> | see page 952 |
| <i>snmp context delete</i> | <i>Delete context name</i> | see page 953 |
| <i>snmp context flush</i> | <i>Flush context names</i> | see page 954 |
| <i>snmp context list</i> | <i>List context names</i> | see page 955 |
| <i>snmp get</i> | <i>Get from supplied Object Identity. e.g. get ObjectId=1.3.6.1.2.1.1.1.0</i> | see page 956 |
| <i>snmp getnext</i> | <i>GetNext from supplied Object Identity. e.g. getNext ObjectId=1.3.6.1.2.1.1.1.0</i> | see page 957 |
| <i>snmp group add</i> | <i>Add a access group.</i> | see page 958 |
| <i>snmp group delete</i> | <i>Delete access group</i> | see page 959 |
| <i>snmp group flush</i> | <i>Flush access groups</i> | see page 960 |
| <i>snmp group list</i> | <i>List access groups</i> | see page 961 |
| <i>snmp group modify</i> | <i>Modify a access group.</i> | see page 962 |
| <i>snmp notify add</i> | <i>Add notify entry.</i> | see page 963 |
| <i>snmp notify delete</i> | <i>Delete notify entry.</i> | see page 964 |
| <i>snmp notifyfilter add</i> | <i>Add notify filter entry.</i> | see page 965 |
| <i>snmp notifyfilter delete</i> | <i>Delete notify filter entry.</i> | see page 966 |
| <i>snmp notifyfilter flush</i> | <i>Flush notify filter entries.</i> | see page 967 |
| <i>snmp notifyfilter list</i> | <i>List notify filter entries.</i> | see page 968 |
| <i>snmp notifyfilter modify</i> | <i>Modify notify filter entry.</i> | see page 969 |
| <i>snmp notify flush</i> | <i>Flush all notify entries.</i> | see page 970 |
| <i>snmp notify list</i> | <i>List notify entries.</i> | see page 971 |
| <i>snmp notify modify</i> | <i>Modify notify entry.</i> | see page 972 |

| | | |
|------------------------------------|---|---------------|
| <i>snmp notifyprofile add</i> | <i>Add notify filter profile entry.</i> | see page 973 |
| <i>snmp notifyprofile delete</i> | <i>Delete notify filter profile entry.</i> | see page 974 |
| <i>snmp notifyprofile flush</i> | <i>Flush notify filter profile entries.</i> | see page 975 |
| <i>snmp notifyprofile list</i> | <i>List notify filter profile entries.</i> | see page 976 |
| <i>snmp notifyprofile modify</i> | <i>Modify notify filter profile entry.</i> | see page 977 |
| <i>snmp securitytogroup add</i> | <i>Add user to an access control group.</i> | see page 978 |
| <i>snmp securitytogroup delete</i> | <i>Delete user from an access control group</i> | see page 979 |
| <i>snmp securitytogroup flush</i> | <i>Flush user versus access control group</i> | see page 980 |
| <i>snmp securitytogroup list</i> | <i>List user versus access control group</i> | see page 981 |
| <i>snmp securitytogroup modify</i> | <i>Modify user to an access control group.</i> | see page 982 |
| <i>snmp target add</i> | <i>Add a target address.</i> | see page 983 |
| <i>snmp target delete</i> | <i>Delete a target address.</i> | see page 985 |
| <i>snmp target flush</i> | <i>Flush all target addresses.</i> | see page 986 |
| <i>snmp target list</i> | <i>List all target addresses.</i> | see page 987 |
| <i>snmp target modify</i> | <i>Modify a target address.</i> | see page 988 |
| <i>snmp targetparams add</i> | <i>Add target parameter entry.</i> | see page 990 |
| <i>snmp targetparams delete</i> | <i>Delete target parameter entry.</i> | see page 991 |
| <i>snmp targetparams flush</i> | <i>Flush all target parameters.</i> | see page 992 |
| <i>snmp targetparams list</i> | <i>List target parmeters.</i> | see page 993 |
| <i>snmp targetparams modify</i> | <i>Modify target parameter entry.</i> | see page 994 |
| <i>snmp user add</i> | <i>Add a snmp user.</i> | see page 995 |
| <i>snmp user delete</i> | <i>Delete a snmp user</i> | see page 996 |
| <i>snmp user flush</i> | <i>Flush snmp users</i> | see page 997 |
| <i>snmp user list</i> | <i>List snmp users</i> | see page 998 |
| <i>snmp user modify</i> | <i>Modify a snmp user.</i> | see page 999 |
| <i>snmp view add</i> | <i>Add a view family.</i> | see page 1000 |
| <i>snmp view delete</i> | <i>Delete view family</i> | see page 1001 |
| <i>snmp view flush</i> | <i>Flush view families</i> | see page 1002 |
| <i>snmp view list</i> | <i>List view families</i> | see page 1003 |
| <i>snmp view modify</i> | <i>Modify a view family.</i> | see page 1004 |

snmp walk

*Walk from supplied Object Identity. e.g. walk
ObjectId=1.3.6.1.2.1.1*

see page 1005

snmp community add

Config an SNMP community string.

SYNTAX:

```
snmp community add          index = <string>
                             securityname = <string>
                             communityname = <password>
                             [context = <{" "}>]
                             [targettag = <string>]
                             [storage = <{other|volatile|nonVolatile|
                             permanent|readOnly}>]
```

where:

| | | |
|---------------|---|----------|
| index | Configure a human readable string uniquely identifying an entry in the snmpCommunityTable. | REQUIRED |
| securityname | Configure a security name for this community string. | REQUIRED |
| communityname | Configure SNMP community string. | REQUIRED |
| context | Configure a context name. | OPTIONAL |
| targettag | Configure a string which is used to select a set of entries in the snmpTargetAddrTable for source address checking. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp community delete

Delete an SNMP community string.

SYNTAX:

```
snmp community delete          index = <{ROCommunity}>
```

where:

| | | |
|-------|--|----------|
| index | A human readable string uniquely identifying an entry in the snmpCommunityTable. | REQUIRED |
|-------|--|----------|

snmp community flush

Flush all SNMP community strings.

snmp community list

List all SNMP community strings.

snmp community modify

Modify an SNMP community string.

SYNTAX:

```
snmp community modify      index = <{ROCommunity}>
                           [securityname = <string>]
                           [communityname = <password>]
                           [context = <{" "}>]
                           [targettag = <string>]
                           [storage = <{other|volatile|nonVolatile|
                           permanent|readOnly}>]
```

where:

| | | |
|---------------|---|----------|
| index | A human readable string uniquely identifying an entry in the snmpCommunityTable. | REQUIRED |
| securityname | Configure a security name for this community string. | OPTIONAL |
| communityname | Configure SNMP community string. | OPTIONAL |
| context | Configure a context name. | OPTIONAL |
| targettag | Configure a string which is used to select a set of entries in the snmpTargetAddrTable for source address checking. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp config

Configure global SNMP parameters.

SYNTAX:

```
snmp config [sysContact = <quoted string>]
            [sysName = <quoted string>]
            [sysLocation = <quoted string>]
            [traps = <{disabled|enabled}>]
```

where:

| | | |
|-------------|--|----------|
| sysContact | SNMP System Contact | OPTIONAL |
| sysName | SNMP System Name | OPTIONAL |
| sysLocation | SNMP System Location | OPTIONAL |
| traps | Disable or enable sending of SNMP traps. | OPTIONAL |

snmp context add

Add context name.

SYNTAX:

```
snmp context add contextname = <string>
```

where:

| | | |
|-------------|-------------------------|----------|
| contextname | Configure context name. | REQUIRED |
|-------------|-------------------------|----------|

snmp context delete

Delete context name

SYNTAX:

```
snmp context delete contextname = <{ " " }>
```

where:

| | | |
|-------------|--|----------|
| contextname | Configure the context name to removed from the context list. | REQUIRED |
|-------------|--|----------|

snmp context flush

Flush context names

snmp context list

List context names

snmp get

Get from supplied Object Identity. e.g. get ObjectId=1.3.6.1.2.1.1.1.0

SYNTAX:

```
snmp get [objectid = <string>]
```

where:

| | | |
|----------|--|----------|
| objectid | Object identity to get from ... must include the instance which is 0 for scalar objects e.g. 1.3.6.1.2.1.1.1.0 or sysDescription.0 | OPTIONAL |
|----------|--|----------|

snmp getnext

GetNext from supplied Object Identity. e.g. getNext ObjectId=1.3.6.1.2.1.1.0

SYNTAX:

```
snmp getnext [objectid = <string>]
```

where:

| | | |
|----------|--|----------|
| objectid | Object identity to getNext from e.g. .1.3.6.1.2.1.1 system returns sysDescription | OPTIONAL |
|----------|--|----------|

snmp group add

Add a access group.

SYNTAX:

```
snmp group add          groupname = <string>
                        [contextname = <{" "}>]
                        securitymodel = <{snmpv1|snmpv2c|usm}>
                        securitylevel = <{noAuthNoPriv|authNoPriv|
                        authPriv}>
                        [readview = <{V1View|View_all|basic_readview|
                        WanAdmin_readview|extended_readview|
                        WanAdmin_writeview|extended_writeview}>]
                        [writeview = <{V1View|View_all|basic_readview|
                        WanAdmin_readview|extended_readview|
                        WanAdmin_writeview|extended_writeview}>]
                        [notifyview = <{V1View|View_all|
                        basic_readview|WanAdmin_readview|
                        extended_readview|WanAdmin_writeview|
                        extended_writeview}>]
                        [storage = <{other|volatile|nonVolatile|
                        permanent|readOnly}>]
```

where:

| | | |
|---------------|--|----------|
| groupname | Configure a human readable string representing a name of a group. | REQUIRED |
| contextname | Configure a context name used to match the context name in a management request. | OPTIONAL |
| securitymodel | Configure the security model for this access control group. | REQUIRED |
| securitylevel | Configure the security level for this access control group. | REQUIRED |
| readview | Configure a view name identifying the view subtrees accessible for read requests. | OPTIONAL |
| writeview | Configure a view name identifying the view subtrees accessible for write requests. | OPTIONAL |
| notifyview | Configure a view name identifying the view subtrees from which objects can be included in notifications. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp group delete

Delete access group

SYNTAX:

```
snmp group delete          groupname = <{SU_Group|V1ROGroup|V1RWGroup|
                           Basic_Group|Extended_Group|WanAdmin_Group}>
                           [contextname = <{" ">]
                           securitymodel = <{snmpv1|snmpv2c|usm}>
                           securitylevel = <{noAuthNoPriv|authNoPriv|
                           authPriv}>
```

where:

| | | |
|---------------|---|----------|
| groupname | Configure a name of a group. | REQUIRED |
| contextname | Configure a context name. | OPTIONAL |
| securitymodel | Configure the security model of the access control group to be deleted. | REQUIRED |
| securitylevel | Configure the security level of the access control group to be deleted. | REQUIRED |

snmp group flush

Flush access groups

snmp group list

List access groups

snmp group modify

Modify a access group.

SYNTAX:

```
snmp group modify          groupname = <{SU_Group|V1ROGroup|V1RWGroup|
                          Basic_Group|Extended_Group|WanAdmin_Group}>
                          [contextname = <{" "}>]
                          securitymodel = <{snmpv1|snmpv2c|usm}>
                          securitylevel = <{noAuthNoPriv|authNoPriv|
                          authPriv}>
                          [readview = <{V1View|View_all|basic_readview|
                          WanAdmin_readview|extended_readview|
                          WanAdmin_writeview|extended_writeview}>]
                          [writeview = <{V1View|View_all|basic_readview|
                          WanAdmin_readview|extended_readview|
                          WanAdmin_writeview|extended_writeview}>]
                          [notifyview = <{V1View|View_all|
                          basic_readview|WanAdmin_readview|
                          extended_readview|WanAdmin_writeview|
                          extended_writeview}>]
                          [storage = <{other|volatile|nonVolatile|
                          permanent|readOnly}>]
```

where:

| | | |
|---------------|--|----------|
| groupname | Configure a name of an access control group. | REQUIRED |
| contextname | Configure a context name used to match the context name in a management request. | OPTIONAL |
| securitymodel | Configure the security model of the access control group to be modified. | REQUIRED |
| securitylevel | Configure the security level of the access control group to be modified. | REQUIRED |
| readview | Configure a view name identifying the view subtrees accessible for read requests. | OPTIONAL |
| writeview | Configure a view name identifying the view subtrees accessible for write requests. | OPTIONAL |
| notifyview | Configure a view name identifying the view subtrees from which objects can be included in notifications. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp notify add

Add notify entry.

SYNTAX:

```
snmp notify add          name = <string>
                        tag = <string>
                        [type = <{trap|inform}>]
                        [storage = <{other|volatile|nonVolatile|
                        permanent|readOnly}>]
```

where:

| | | |
|---------|--|----------|
| name | Configure a human readable string representing the name of this notification. | REQUIRED |
| tag | Configure a human readable string that is used to select a set of entries in the snmpTargetAddrTable | REQUIRED |
| type | Configure the notify type. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp notify delete

Delete notify entry.

SYNTAX:

```
snmp notify delete          name = <{V1Trap}>
```

where:

| | | |
|------|-----------------------------|----------|
| name | Delete a snmp notify entry. | REQUIRED |
|------|-----------------------------|----------|

snmp notifyfilter add

Add notify filter entry.

SYNTAX:

```
snmp notifyfilter add      profilename = <string>
                           subtree = <string>
                           [mask = <string>]
                           [type = <{include|exclude}>]
                           [storage = <{other|volatile|nonVolatile|
                           permanent|readOnly}>]
```

where:

| | | |
|-------------|---|----------|
| profilename | Configure a human readable string representing the name of this notification filter. | REQUIRED |
| subtree | Configure an object identifier which specifies the MIB subtree containing the notifications objects to be filtered. | REQUIRED |
| mask | Configure a hexadecimal bitmask (i.e ff:a0) which, in combination with the corresponding object identifier of the subtree is used for masking out parts of the filter. Each bit of the mask is matched against the corresponding subidentifier of the subtree. If there are more bits in the mask than subidentifiers in the subtree, the excess least significant bits of the mask are ignored. If there are fewer bits in the mask than subidentifiers in the subtree, the mask is extended, from the least- significant side, with 1's to be the required length. If the mask bit is 1, the subidentifier is used; if the mask bit is 0, then the corresponding subidentifier position is treated as 'wildcard' in which any value may appear. | OPTIONAL |
| type | Indicate whether the subtree defined by this entry is include or exclude from a filter. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp notifyfilter delete

Delete notify filter entry.

SYNTAX:

```
snmp notifyfilter delete      profilename = <>
                               subtree = <>
```

where:

| | | |
|-------------|---|----------|
| profilename | Configure the name of a notify filter to be deleted. | REQUIRED |
| subtree | Configure the MIB subtree which identifies the entry to be deleted. | REQUIRED |

snmp notifyfilter flush

Flush notify filter entries.

snmp notifyfilter list

List notify filter entries.

snmp notifyfilter modify

Modify notify filter entry.

SYNTAX:

```
snmp notifyfilter modify      profilename = <>
                              subtree = <>
                              [mask = <string>]
                              [type = <{include|exclude}>]
                              [storage = <{other|volatile|nonVolatile|
                              permanent|readOnly}>]
```

where:

| | | |
|-------------|---|----------|
| profilename | Configure a human readable string representing the name of this notification filter. | REQUIRED |
| subtree | Configure an object identifier which specifies the MIB subtree containing the notifications objects to be filtered. | REQUIRED |
| mask | Configure a hexadecimal bitmask (i.e ff:a0) which, in combination with the corresponding object identifier of the subtree is used for masking out parts of the filter. Each bit of the mask is matched against the corresponding subidentifier of the subtree. If there are more bits in the mask than subidentifiers in the subtree, the excess least significant bits of the mask are ignored. If there are fewer bits in the mask than subidentifiers in the subtree, the mask is extended, from the least- significant side, with 1's to be the required length. If the mask bit is 1, the subidentifier is used; if the mask bit is 0, then the corresponding subidentifier position is treated as 'wildcard' in which any value may appear. | OPTIONAL |
| type | Indicate whether the subtree defined by this entry is include or exclude from a filter. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp notify flush

Flush all notify entries.

snmp notify list

List notify entries.

snmp notify modify

Modify notify entry.

SYNTAX:

```
snmp notify modify      name = <{V1Trap}>
                        [tag = <string>]
                        [type = <{trap|inform}>]
                        [storage = <{other|volatile|nonVolatile|
                        permanent|readOnly}>]
```

where:

| | | |
|---------|---|----------|
| name | Configure a human readable string representing the name of this notification. | REQUIRED |
| tag | Configure a human readable string that is used to select a set of entries in the snmpTargetAddrTable. | OPTIONAL |
| type | Configure the notify type. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp notifyprofile add

Add notify filter profile entry.

SYNTAX:

```
snmp notifyprofile add      paramname = <{V1Params}>
                             profilename = <>
                             [storage = <{other|volatile|nonVolatile|
                             permanent|readOnly}>]
```

where:

| | | |
|-------------|--|----------|
| paramname | Configure a name of a target Parameter defined in the snmpTargetParamsTable. | REQUIRED |
| profilename | Configure a name of a notify filter. | REQUIRED |
| storage | Configure the storage type. | OPTIONAL |

snmp notifyprofile delete

Delete notify filter profile entry.

SYNTAX:

```
snmp notifyprofile delete      paramname = <{V1Params}>
```

where:

| | | |
|-----------|---|----------|
| paramname | Configure a name of a target parameter. | REQUIRED |
|-----------|---|----------|

snmp notifyprofile flush

Flush notify filter profile entries.

snmp notifyprofile list

List notify filter profile entries.

snmp notifyprofile modify

Modify notify filter profile entry.

SYNTAX:

```
snmp notifyprofile modify      paramname = <{V1Params}>
                               [profilename = <>]
                               [storage = <{other|volatile|nonVolatile|
                               permanent|readOnly}>]
```

where:

| | | |
|-------------|--|----------|
| paramname | Configure a name of a target Parameter defined in the snmpTargetParamsTable. | REQUIRED |
| profilename | Configure a name of a notify filter. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp securitytogroup add

Add user to an access control group.

SYNTAX:

```
snmp securitytogroup add      securitymodel = <{snmpv1|snmpv2c|usm}>
                              securityname = <{ROCommunity|SU|user|LanAdmin|
                              WanAdmin|PowerUser|TechAdmin|Administrator}>
                              groupname = <{SU_Group|V1ROGroup|V1RWGroup|
                              Basic_Group|Extended_Group|WanAdmin_Group}>
                              [storage = <{other|volatile|nonVolatile|
                              permanent|readOnly}>]
```

where:

| | | |
|---------------|--|----------|
| securitymodel | Configure a security model. | REQUIRED |
| securityname | Configure a name of a user. | REQUIRED |
| groupname | Configure the name of a group to which the user is assigned. | REQUIRED |
| storage | Configure the storage type. | OPTIONAL |

snmp securitytogroup delete

Delete user from an access control group

SYNTAX:

```
snmp securitytogroup delete securitymodel = <{snmpv1|snmpv2c|usm}>
securityname = <{ROCommunity|RWCommunity|SU|
user|LanAdmin|WanAdmin|PowerUser|TechAdmin|
Administrator}>
```

where:

| | | |
|---------------|---------------------------------|----------|
| securitymodel | Configure the security model. | REQUIRED |
| securityname | Configure the name of the user. | REQUIRED |

snmp securitytogroup flush

Flush user versus access control group

snmp securitytogroup list

List user versus access control group

snmp securitytogroup modify

Modify user to an access control group.

SYNTAX:

```
snmp securitytogroup modify securitymodel = <{snmpv1|snmpv2c|usm}>
securityname = <{ROCommunity|RWCommunity|SU|
user|LanAdmin|WanAdmin|PowerUser|TechAdmin|
Administrator}>
[groupname = <{SU_Group|V1ROGroup|V1RWGroup|
Basic_Group|Extended_Group|WanAdmin_Group}>]
[storage = <{other|volatile|nonVolatile|
permanent|readOnly}>]
```

where:

| | | |
|---------------|--|----------|
| securitymodel | Configure the security model. | REQUIRED |
| securityname | Configure the name of the user. | REQUIRED |
| groupname | Configure the name of an access group to which the user is assigned. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp target add

Add a target address.

SYNTAX:

```
snmp target add          name = <string>
                        addr = <ipv4-address>
                        [port = <number{0-65535}>]
                        [mask = <ip-mask(dotted or cidr)>]
                        [timeout = <number{0-2147483647}>]
                        [retries = <number{0-255}>]
                        [maxpertime = <number{0-255}>]
                        [windowtime = <number{0-3600}>]
                        [taglist = <quoted string>]
                        [params = <{V1Params}>]
                        [storage = <{other|volatile|nonVolatile|
permanent|readOnly}>]
                        [mms = <number{484-65535}>]
```

where:

| | | |
|------------|--|----------|
| name | Configure a human readable string representing the name of this target. | REQUIRED |
| addr | Configure a valid target IP address. | REQUIRED |
| port | Configure the target port number. | OPTIONAL |
| mask | Configure the IP bitfield mask, only applicable in case of source address checking. | OPTIONAL |
| timeout | Configure the snmp expected maximum round trip time (in hundredths seconds) for communicating with the target address. | OPTIONAL |
| retries | Configure the number of times the snmp entity will attempt to retransmit an inform when no response is received. | OPTIONAL |
| maxpertime | Configure the maximum number of notifications that can be sent within a limited time base, defined as window time. | OPTIONAL |
| windowtime | Configure the time base (in seconds) that limits the number of notifications. A window time of 0 deactivates the trap rate limitation mechanism. | OPTIONAL |
| taglist | Configure a string containing one or more tags. A tag corresponds to a tag in the usmUserTable, the snmpCommunityTable or the snmpNotifyTable. | OPTIONAL |
| params | Configure a human readable string that is used to select a set of entries in the snmpTargetParamsTable. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

| | | |
|-----|---|----------|
| mms | Configure the maximum message size that can be retransmitted without risk of fragmentation. | OPTIONAL |
|-----|---|----------|

snmp target delete

Delete a target address.

SYNTAX:

```
snmp target delete          name = <>
```

where:

| | | |
|------|-------------------------------|----------|
| name | Delete a snmp target address. | REQUIRED |
|------|-------------------------------|----------|

snmp target flush

Flush all target addresses.

snmp target list

List all target addresses.

snmp target modify

Modify a target address.

SYNTAX:

```
snmp target modify          name = <>
                           [addr = <ipv4-address>]
                           [port = <number{0-65535}>]
                           [mask = <ip-mask(dotted or cidr)>]
                           [timeout = <number{0-2147483647}>]
                           [retries = <number{0-255}>]
                           [maxpertime = <number{0-255}>]
                           [windowtime = <number{0-3600}>]
                           [taglist = <quoted string>]
                           [params = <{V1Params}>]
                           [storage = <{other|volatile|nonVolatile|
                           permanent|readOnly}>]
                           [mms = <number{484-65535}>]
```

where:

| | | |
|------------|--|----------|
| name | Configure a human readable string representing the name of this target. | REQUIRED |
| addr | Configure a valid target IP address. | OPTIONAL |
| port | Configure the target port number. Port number 0 defaults to the default snmp trap port. | OPTIONAL |
| mask | Configure the IP bitfield mask, only applicable in case of source address checking. | OPTIONAL |
| timeout | Configure the snmp expected maximum round trip time (in hundredths of seconds) for communicating with the target address. | OPTIONAL |
| retries | Configure the number of times the snmp entity will attempt to retransmit an inform when no response is received. | OPTIONAL |
| maxpertime | Configure the maximum number of notifications that can be sent within a limited time base, defined as window time. | OPTIONAL |
| windowtime | Configure the time base (in seconds) that limits the number of notifications. A window time of 0 deactivates the trap rate limitation mechanism. | OPTIONAL |
| taglist | Configure a string containing one or more tags. A tag corresponds to tag in the usmUserTable, the snmpCommunityTable or the snmpNotifyTable. | OPTIONAL |
| params | Configure a human readable string that is used to select a set of entries in the snmpTargetParamsTable. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

| | | |
|-----|---|----------|
| mms | Configure maximum message size that can be retransmitted without risk of fragmentation. | OPTIONAL |
|-----|---|----------|

snmp targetparams add

Add target parameter entry.

SYNTAX:

```
snmp targetparams add          paramname = <string>
                               [mpmodel = <{v1|v2c|v2u_v2|v3}>]
                               securitymodel = <{snmpv1|snmpv2c|usm}>
                               securityname = <{ROCommunity|SU|user|LanAdmin|
                               WanAdmin|PowerUser|TechAdmin|Administrator}>
                               securitylevel = <{noAuthNoPriv|authNoPriv|
                               authPriv}>
                               [storage = <{other|volatile|nonVolatile|
                               permanent|readOnly}>]
```

where:

| | | |
|---------------|---|----------|
| paramname | Configure a human readable string representing the name of this parameter. | REQUIRED |
| mpmodel | Configure the message processing model used to determine the type of notifications to send. | OPTIONAL |
| securitymodel | Configure the security model used to determine the type of notifications to send. | REQUIRED |
| securityname | Configure a user name to be used in the notification. | REQUIRED |
| securitylevel | Configure the security level of the notification to send. | REQUIRED |
| storage | Configure the storage type. | OPTIONAL |

snmp targetparams delete

Delete target parameter entry.

SYNTAX:

```
snmp targetparams delete      paramname = <{V1Params}>
```

where:

| | | |
|-----------|---------------------------------|----------|
| paramname | Delete a snmp target paramater. | REQUIRED |
|-----------|---------------------------------|----------|

snmp targetparams flush

Flush all target parameters.

snmp targetparams list

List target parameters.

snmp targetparams modify

Modify target parameter entry.

SYNTAX:

```
snmp targetparams modify      paramname = <{V1Params}>
                               [mpmodel = <{v1|v2c|v2u_v2|v3}>]
                               [securitymodel = <{snmpv1|snmpv2c|usm}>]
                               [securityname = <{ROCommunity|SU|user|
                               LanAdmin|WanAdmin|PowerUser|TechAdmin|
                               Administrator}>]
                               [securitylevel = <{noAuthNoPriv|authNoPriv|
                               authPriv}>]
                               [storage = <{other|volatile|nonVolatile|
                               permanent|readOnly}>]
```

where:

| | | |
|---------------|---|----------|
| paramname | Configure a human readable string representing the name of this parameter. | REQUIRED |
| mpmodel | Configure the message processing model used to determine the type of notifications to send. | OPTIONAL |
| securitymodel | Configure the security model used to determine the type of notifications to send. | OPTIONAL |
| securityname | Configure a user name to be used in the notification. | OPTIONAL |
| securitylevel | Configure the security level of the notification to send. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp user add

Add a snmp user.

SYNTAX:

```
snmp user add                securityname = <string>
                             snmpengineID = <string>
                             authprot = <{usmNoAuthProtocol|
                             usmHMACMD5AuthProtocol|
                             usmHMACSHAAuthProtocol}>
                             [authpass = <string>]
                             privprot = <{usmNoPrivProtocol|
                             usmDESPrivProtocol|usmAESCfb128PrivProtocol|
                             usmAESCfb192PrivProtocol|
                             usmAESCfb256PrivProtocol}>
                             [privpass = <string>]
                             [storage = <{other|volatile|nonVolatile|
                             permanent|readOnly}>]
                             [targettag = <string>]
```

where:

| | | |
|--------------|--|----------|
| securityname | Configure a human readable string representing the name of a user. | REQUIRED |
| snmpengineID | Configure the authoritative SNMP engine's administratively-unique identifier, specified as hexadecimal numbers (00-ff) and delimited with colons. Or use the default value 'localSnmpID' to refer to the snmpEngineID of the local SNMP agent. | REQUIRED |
| authprot | Configure the authentication protocol to be used on behalf of this user. | REQUIRED |
| authpass | Configure a human readable string representing the user's authentication password. The password will be converted to a key. | OPTIONAL |
| privprot | Configure the privacy protocol to be used on behalf of this user. | REQUIRED |
| privpass | Configure a human readable string representing the user's privacy password. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |
| targettag | Configure a human readable string used to select a set of entries in the snmpTargetAddrTable for source address checking. | OPTIONAL |

snmp user delete

Delete a snmp user

SYNTAX:

```
snmp user delete          securityname = <{SU|user|LanAdmin|WanAdmin|
                          PowerUser|TechAdmin|Administrator}>
                          snmpengineID = <string>
```

where:

| | | |
|--------------|--|----------|
| securityname | Delete an existing snmpv3 user. | REQUIRED |
| snmpengineID | The authoritative SNMP engine's administratively-unique identifier, specified as hexadecimal numbers (00-ff) and delimited with colons. Or use the default value 'localSnmpID' to refer to the snmpEngineID of the local SNMP agent. | REQUIRED |

snmp user flush

Flush snmp users

snmp user list

List snmp users

snmp user modify

Modify a snmp user.

SYNTAX:

```
snmp user modify          securityname = <{SU|user|LanAdmin|WanAdmin|
                          PowerUser|TechAdmin|Administrator}>
                          snmpengineID = <string>
                          [authprot = <{usmNoAuthProtocol|
                          usmHMACMD5AuthProtocol|
                          usmHMACSHAAuthProtocol}>]
                          [authpass = <string>]
                          [privprot = <{usmNoPrivProtocol|
                          usmDESPrivProtocol|usmAESCfb128PrivProtocol|
                          usmAESCfb192PrivProtocol|
                          usmAESCfb256PrivProtocol}>]
                          [privpass = <string>]
                          [storage = <{other|volatile|nonVolatile|
                          permanent|readOnly}>]
                          [targettag = <string>]
```

where:

| | | |
|--------------|--|----------|
| securityname | Configure a human readable string representing the name of a user. | REQUIRED |
| snmpengineID | Configure the authoritative SNMP engine's administratively-unique identifier, specified as hexadecimal numbers (00-ff) and delimited with colons. Or use the default value 'localSnmpID' to refer to the snmpEngineID of the local SNMP agent. | REQUIRED |
| authprot | Configure the authentication protocol to be used on behalf of this user. | OPTIONAL |
| authpass | Configure a human readable string representing the user's authentication password. The password will be converted to a key. | OPTIONAL |
| privprot | Configure the privacy protocol to be used on behalf of this user. | OPTIONAL |
| privpass | Configure privacy password. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |
| targettag | Configure a human readable string used to select a set of entries in the snmpTargetAddrTable for source address checking. | OPTIONAL |

snmp view add

Add a view family.

SYNTAX:

```
snmp view add          viewname = <{V1View|View_all|basic_readview|
                        WanAdmin_readview|extended_readview|
                        WanAdmin_writeview|extended_writeview}>
                        viewtree = <string>
                        type = <{include|exclude}>
                        [storage = <{other|volatile|nonVolatile|
                        permanent|readOnly}>]
```

where:

| | | |
|----------|---|----------|
| viewname | Configure a human readable string representing the name of this family of view subtrees. | REQUIRED |
| viewtree | Configure an object identifier that identifies a subtree of the MIB. | REQUIRED |
| type | Indicate whether the subtree is explicitly accessible or not in this family of view subtrees. | REQUIRED |
| storage | Configure the storage type. | OPTIONAL |

snmp view delete

Delete view family

SYNTAX:

```
snmp view delete          viewname = <{V1View|View_all|basic_readview|
                          WanAdmin_readview|extended_readview|
                          WanAdmin_writeview|extended_writeview}>
                          viewtree = <string>
```

where:

| | | |
|----------|---|----------|
| viewname | Configure the name of the family of view subtrees of which an entry is to be deleted. | REQUIRED |
| viewtree | Configure the object Identifier of a subtree of the MIB which is to be deleted from this family of view subtrees. | REQUIRED |

snmp view flush

Flush view families

snmp view list

List view families

SYNTAX:

```
snmp view list [viewname = <{V1View|View_all|basic_readview|  
WanAdmin_readview|extended_readview|  
WanAdmin_writeview|extended_writeview}>]
```

where:

| | | |
|----------|--|----------|
| viewname | Configure the name of the family of view subtrees to show. | OPTIONAL |
|----------|--|----------|

snmp view modify

Modify a view family.

SYNTAX:

```
snmp view modify          viewname = <{V1View|View_all|basic_readview|
                          WanAdmin_readview|extended_readview|
                          WanAdmin_writeview|extended_writeview}>
                          viewtree = <string>
                          [type = <{include|exclude}>]
                          [storage = <{other|volatile|nonVolatile|
                          permanent|readOnly}>]
```

where:

| | | |
|----------|---|----------|
| viewname | Configure the name of this family of view subtrees. | REQUIRED |
| viewtree | Configure an object identifier that identifies a subtree of a MIB. | REQUIRED |
| type | Indicate whether the subtree is explicitly accessible or not in this family of view subtrees. | OPTIONAL |
| storage | Configure the storage type. | OPTIONAL |

snmp walk

Walk from supplied Object Identity. e.g. walk ObjectId=1.3.6.1.2.1.1

SYNTAX:

```
snmp walk [objectid = <string>]
```

where:

| | | |
|----------|--|----------|
| objectid | Object identity to walk from e.g. .1.3.6.1.2.1.1 system walks the system group | OPTIONAL |
|----------|--|----------|

sntp Commands

| | | |
|-------------------------------|--|---------------|
| <i>sntp add</i> | <i>Add NTP server</i> | see page 1008 |
| <i>sntp config</i> | <i>Modify/Display configuration</i> | see page 1009 |
| <i>sntp debug traceconfig</i> | <i>Modify SNTP client trace configuration</i> | see page 1010 |
| <i>sntp delete</i> | <i>Delete NTP server from list</i> | see page 1011 |
| <i>sntp flush</i> | <i>Flush NTP server list and SNTP client configuration</i> | see page 1012 |
| <i>sntp list</i> | <i>List the NTP servers</i> | see page 1013 |
| <i>sntp Server config</i> | <i>Modify/Display SNTP Server configuration</i> | see page 1014 |

sntp add

Add NTP server

SYNTAX:

```
sntp add [addr = <ipv4-address>]
         [name = <string>]
         [version = <number{1-4}>]
```

where:

| | | |
|---------|--|----------|
| addr | IP address of NTP server to be added to list | OPTIONAL |
| name | DNS name of NTP server to be added to list. If both the IP address and the DNS name are provided, the IP address is ignored. | OPTIONAL |
| version | SNTP version of server (1,2,3 or 4) | OPTIONAL |

sntp config

Modify/Display configuration

SYNTAX:

```
sntp config [state = <{enabled|disabled}>]
            [poll = <number{1-10080}>]
            [pollpresync = <number{1-60}>]
            [wanSubscribe = <{enabled|disabled}>]
```

where:

| | | |
|--------------|--|----------|
| state | Enable/Disable SNTP client | OPTIONAL |
| poll | polling interval (1 min, ... ,10080min(=7days)) | OPTIONAL |
| pollpresync | polling interval before first sync (1 min, ... ,60min) | OPTIONAL |
| wanSubscribe | Enable/Disable subscribe wan connection | OPTIONAL |

sntp debug traceconfig

Modify SNTP client trace configuration

SYNTAX:

```
sntp debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|-------------------------|----------|
| state | Enable/Disable tracing. | OPTIONAL |
|-------|-------------------------|----------|

sntp delete

Delete NTP server from list

SYNTAX:

```
sntp delete [addr = <ipv4-address>]
            [name = <string>]
```

where:

| | | |
|------|--|----------|
| addr | IP address of NTP server to be removed from list | OPTIONAL |
| name | DNS name of NTP server to be removed from list | OPTIONAL |

sntp flush

Flush NTP server list and SNTP client configuration

sntp list

List the NTP servers

sntp Server config

Modify/Display SNTP Server configuration

SYNTAX:

```
sntp Server config [state = <{disabled|enabled}>]
                  [LocalClockSource = <{disabled|enabled}>]
```

where:

| | | |
|------------------|---------------------------------------|----------|
| state | Enable/Disable SNTP Server. | OPTIONAL |
| LocalClockSource | Enable/Disable Local clock as source. | OPTIONAL |

software Commands

| | | |
|-------------------------------|--|---------------|
| <i>software deletepassive</i> | <i>Delete passive image.</i> | see page 1016 |
| <i>software download</i> | <i>Download parameters.</i> | see page 1017 |
| <i>software duplicate</i> | <i>Duplicate the active firmware (passive = active).</i> | see page 1018 |
| <i>software switchover</i> | <i>Switch from active to passive firmware & reboot.</i> | see page 1019 |
| <i>software upgrade</i> | <i>Force the gateway into LAN upgrade mode (Ctrl-BOOTP).</i> | see page 1020 |
| <i>software version</i> | <i>Display the software version.</i> | see page 1021 |

software deletepassive

Delete passive image.

software download

Download parameters.

SYNTAX:

```
software download          filetype = <{firmware}>
                           url = <string>
                           [username = <string>]
                           [password = <string>]
                           [filesize = <string>]
                           [targetfilename = <string>]
```

where:

| | | |
|----------------|---|----------|
| filetype | The type of the file to be downloaded. | REQUIRED |
| url | Set the HTTP URL where the file is to be found including remote filename. | REQUIRED |
| username | Set the name to be used to authenticate to the download server. | OPTIONAL |
| password | Set the password to be used to authenticate to the download server. | OPTIONAL |
| filesize | Set the size of the file to be downloaded. | OPTIONAL |
| targetfilename | Set the filename used to save the file on the modem. | OPTIONAL |

software duplicate

Duplicate the active firmware (passive = active).

software switchover

Switch from active to passive firmware & reboot.

SYNTAX:

```
software switchover [reuseconfig = <{yes|no}>]
```

where:

| | | |
|-------------|--|----------|
| reuseconfig | Confirm to use the existing configuration. | OPTIONAL |
|-------------|--|----------|

software upgrade

Force the gateway into LAN upgrade mode (Ctrl-BOOTP).

software version

Display the software version.

statecheck Commands

| | | |
|------------------------------------|-------------------------------------|---------------|
| <i>statecheck checkadd</i> | <i>Add a check object.</i> | see page 1024 |
| <i>statecheck checkdelete</i> | <i>Delete a check object.</i> | see page 1025 |
| <i>statecheck config</i> | <i>Configure checkd parameters.</i> | see page 1026 |
| <i>statecheck groupadd</i> | <i>Add a group object.</i> | see page 1027 |
| <i>statecheck groupdelete</i> | <i>Delete a group object.</i> | see page 1028 |
| <i>statecheck list</i> | <i>List checks.</i> | see page 1029 |
| <i>statecheck statecheckadd</i> | <i>Add a statecheck object.</i> | see page 1030 |
| <i>statecheck statecheckdelete</i> | <i>Delete a statecheck object.</i> | see page 1031 |

statecheck checkadd

Add a check object.

SYNTAX:

```
statecheck checkadd      [statecheck = <{}>]
                        group = <{}>
                        name = <string>
                        object = <string>
                        paramname = <string>
                        paramtype = <{string|uint|bool}>
                        [paramop = <{and|or|single}>]
                        matchtype = <{equal|differ|statdelta}>
                        match = <quoted string>
                        [conschecks = <number>]
```

where:

| | | |
|------------|--|----------|
| statecheck | The name of the statecheck. | OPTIONAL |
| group | The name of the group. | REQUIRED |
| name | The name of the check. | REQUIRED |
| object | The object to check. | REQUIRED |
| paramname | The parameter to check. | REQUIRED |
| paramtype | The parameter type. | REQUIRED |
| paramop | The parameter operator type. | OPTIONAL |
| matchtype | The match type. | REQUIRED |
| match | The match value. | REQUIRED |
| conschecks | The number of consecutive checks the result has to be inactive before the inactive parameter changes | OPTIONAL |

statecheck checkdelete

Delete a check object.

SYNTAX:

```
statecheck checkdelete      statecheck = <{}>
                             group = <{}>
                             name = <{}>
```

where:

| | | |
|------------|-----------------------------|----------|
| statecheck | The name of the statecheck. | REQUIRED |
| group | The name of the group. | REQUIRED |
| name | The name of the check. | REQUIRED |

statecheck config

Configure checkd parameters.

SYNTAX:

```
statecheck config      [statecheck = <{>]
                       interval = <number>
                       timeout = <number>
                       [groupop = <{and|or}>]
                       [dmtree = <{igd|atomic}>]
```

where:

| | | |
|------------|---|----------|
| statecheck | The name of the statecheck. | OPTIONAL |
| interval | The interval seconds between checks. | REQUIRED |
| timeout | The Timeout seconds after which checking stops. | REQUIRED |
| groupop | Group operator type. | OPTIONAL |
| dmtree | Client type. | OPTIONAL |

statecheck groupadd

Add a group object.

SYNTAX:

```
statecheck groupadd      [statecheck = <{}>]
                        name = <string>
                        [checkop = <{and|or}>]
```

where:

| | | |
|------------|-----------------------------|----------|
| statecheck | The name of the statecheck. | OPTIONAL |
| name | The name of the group. | REQUIRED |
| checkop | Check operator type. | OPTIONAL |

statecheck groupdelete

Delete a group object.

SYNTAX:

```
statecheck groupdelete      statecheck = <{}>
                             name = <{}>
```

where:

| | | |
|------------|-----------------------------|----------|
| statecheck | The name of the statecheck. | REQUIRED |
| name | The name of the group. | REQUIRED |

statecheck list

List checks.

statecheck statecheckadd

Add a statecheck object.

SYNTAX:

```
statecheck statecheckadd      name = <string>
```

where:

| | | |
|------|-----------------------------|----------|
| name | The name of the statecheck. | REQUIRED |
|------|-----------------------------|----------|

statecheck statecheckdelete

Delete a statecheck object.

SYNTAX:

```
statecheck statecheckdelete statecheck = <{}>
```

where:

| | | |
|------------|-----------------------------|----------|
| statecheck | The name of the statecheck. | REQUIRED |
|------------|-----------------------------|----------|

syslog Commands

| | | |
|----------------------------|---|---------------|
| <i>syslog config</i> | <i>Set/Display configuration</i> | see page 1034 |
| <i>syslog flush</i> | <i>Flushes syslog rules.</i> | see page 1035 |
| <i>syslog list</i> | <i>List the current syslog configuration</i> | see page 1036 |
| <i>syslog msgbuf flush</i> | <i>Flush all messages in syslog message buffer.</i> | see page 1037 |
| <i>syslog msgbuf send</i> | <i>Send messages to remote syslog server.</i> | see page 1038 |
| <i>syslog msgbuf show</i> | <i>Show messages in the syslog message buffer.</i> | see page 1039 |
| <i>syslog ruleadd</i> | <i>Add a new rule to the syslog configuration.</i> | see page 1040 |
| <i>syslog ruledetele</i> | <i>Delete a rule in the syslog configuration</i> | see page 1041 |

syslog config

Set/Display configuration

SYNTAX:

```
syslog config [activate = <{disabled|enabled}>]  
              [timeout = <number{0-60}>]  
              [format = <{standard|welf}>]
```

where:

| | | |
|----------|--|----------|
| activate | Syslog send to collectors enabled. | OPTIONAL |
| timeout | Syslog flooding timeout (in secs) to collectors. | OPTIONAL |
| format | Syslog contents format | OPTIONAL |

syslog flush

Flushes syslog rules.

syslog list

List the current syslog configuration

syslog msgbuf flush

Flush all messages in syslog message buffer.

syslog msgbuf send

Send messages to remote syslog server.

SYNTAX:

```
syslog msgbuf send      [fac = <{kern|user|mail|daemon|auth|syslog|
                        lpr|news|uucp|cron|security|ftp|local6|
                        local7}>]
                        [sev = <{emerg|alert|crit|err|warning|notice|
                        info|debug}>]
                        [hist = <{disabled|enabled}>]
                        dest = <ipv4-address>
```

where:

| | | |
|------|---|----------|
| fac | Syslog facility level. | OPTIONAL |
| sev | Syslog severity level. | OPTIONAL |
| hist | Syslog display message history (over several bootups) | OPTIONAL |
| dest | Remote syslog server destination: an ip-address. | REQUIRED |

syslog msgbuf show

Show messages in the syslog message buffer.

SYNTAX:

```
syslog msgbuf show [fac = <{kern|user|mail|daemon|auth|syslog|
                    lpr|news|uucp|cron|security|ftp|local6|
                    local7}>]
                    [sev = <{emerg|alert|crit|err|warning|notice|
                    info|debug}>]
                    [hist = <{disabled|enabled}>]
```

where:

| | | |
|------|---|----------|
| fac | Syslog facility level. | OPTIONAL |
| sev | Syslog severity level. | OPTIONAL |
| hist | Syslog display message history (over several bootups) | OPTIONAL |

syslog ruleadd

Add a new rule to the syslog configuration.

SYNTAX:

```
syslog ruleadd          fac = <{kern|user|mail|daemon|auth|syslog|lpr|
                        news|uucp|cron|security|ftp|local6|local7|all
                        or comma-seperated }>
                        sev = <{emerg|alert|crit|err|warning|notice|
                        info|debug}>
                        dest = <ipv4-address>
```

where:

| | | |
|------|---|----------|
| fac | Syslog rule facility. | REQUIRED |
| sev | Syslog rule severity. | REQUIRED |
| dest | Syslog rule destination: an ip-address. | REQUIRED |

syslog ruledelete

Delete a rule in the syslog configuration

SYNTAX:

```
syslog ruledelete          rule_index = <number{1-16}>
```

where:

| | | |
|------------|--------------------|----------|
| rule_index | Syslog rule index. | REQUIRED |
|------------|--------------------|----------|

system Commands

| | | |
|------------------------------|---|---------------|
| <i>system config</i> | <i>Set or change system config parameters.</i> | see page 1044 |
| <i>system debug autosave</i> | <i>Autosave debugging commands</i> | see page 1045 |
| <i>system debug cpu</i> | <i>CPU usage statistics</i> | see page 1046 |
| <i>system debug mem</i> | <i>Memory usage statistics</i> | see page 1047 |
| <i>system dst</i> | <i>Set daylight saving values</i> | see page 1048 |
| <i>system flush</i> | <i>Flush system configuration.</i> | see page 1049 |
| <i>system ipc config</i> | <i>IPC configuration</i> | see page 1050 |
| <i>system ra config</i> | <i>Configure remote access parameters.</i> | see page 1051 |
| <i>system ra instadd</i> | <i>Add a remote access instances.</i> | see page 1052 |
| <i>system ra instdelete</i> | <i>Delete remote access instances.</i> | see page 1053 |
| <i>system ra list</i> | <i>List remote access instances.</i> | see page 1054 |
| <i>system ra start</i> | <i>Starts temporary mode.</i> | see page 1055 |
| <i>system ra stop</i> | <i>Stops temporary mode.</i> | see page 1056 |
| <i>system reboot</i> | <i>Reboot the modem.</i> | see page 1057 |
| <i>system reset</i> | <i>Reset to (factory or ISP) defaults: user specific settings will be cleared !</i> | see page 1058 |
| <i>system settime</i> | <i>Set/Get date, time, timezone, daylight savings time, uptime.</i> | see page 1059 |
| <i>system timedreboot</i> | <i>Set or change editing mode timed reboot</i> | see page 1060 |

system config

Set or change system config parameters.

SYNTAX:

```
system config [upnp = <{disabled|enabled}>]
              [tr64 = <{disabled|enabled}>]
              [tr64sessiontimeout = <number{30-45}>]
              [tr64auth = <{disabled|enabled}>]
              [mdap = <{disabled|enabled}>]
              [led = <{blue|green|red|orange|flash|off}>]
              [resetbutton = <{disabled|enabled}>]
              [defaultconnection = <{loop|Internet|
LocalNetwork}>]
              [autosave = <{enabled|disabled}>]
              [autosavedelay = <number{0-600}>]
              [WANMode = <{ADSL|VDSL|SHDSL|ETH|UMTS}>]
              [WANEthPort = <{ethif1|ethif2|ethif3|ethif4|
ethif5}>]
```

where:

| | | |
|--------------------|---|----------|
| upnp | Enable/Disable upnp discovery | OPTIONAL |
| tr64 | Enable/Disable TR-64 discovery | OPTIONAL |
| tr64sessiontimeout | TR-64 session timeout value (sec) | OPTIONAL |
| tr64auth | Enable/Disable TR-64 digest authentication | OPTIONAL |
| mdap | Enable/Disable mdap discovery | OPTIONAL |
| led | Set system LED color | OPTIONAL |
| resetbutton | Enable/Disable reset-to-factory-defaults pushbutton | OPTIONAL |
| defaultconnection | The name of the default internet connection. | OPTIONAL |
| autosave | Enable/Disable autosaves | OPTIONAL |
| autosavedelay | Autosave delay in seconds (0 for immediate save) | OPTIONAL |
| WANMode | Set autosensing wan mode | OPTIONAL |
| WANEthPort | Set autosensing eth wan port | OPTIONAL |

system debug autosave

Autosave debugging commands

SYNTAX:

```
system debug autosave [trace = <{disabled|enabled}>]
```

where:

| | | |
|-------|--------------------------------|----------|
| trace | Enable/Disable autosave traces | OPTIONAL |
|-------|--------------------------------|----------|

system debug cpu

CPU usage statistics

SYNTAX:

```
system debug cpu [delay = <number{1-60}>]
                 [iterations = <number{1-4000000}>]
                 [tasks = <{disabled|enabled}>]
```

where:

| | | |
|------------|-----------------------------------|----------|
| delay | Delay between stats updates | OPTIONAL |
| iterations | Number of iteration before ending | OPTIONAL |
| tasks | Show active tasks | OPTIONAL |

system debug mem

Memory usage statistics

SYNTAX:

```
system debug mem [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|-----------------------|----------|
| expand | Dump of /proc/meminfo | OPTIONAL |
|--------|-----------------------|----------|

system dst

Set daylight saving values

SYNTAX:

```
system dst [mode = <{Absolute|Relative}>]
           [startdate = <dd/mm/yyyy>]
           [starttime = <hh:mm:ss>]
           [enddate = <dd/mm/yyyy>]
           [endtime = <hh:mm:ss>]
           [startweekday = <{Sunday|Monday|Tuesday|
Wednesday|Thursday|Friday|Saturday}>]
           [starthour = <number{0-23}>]
           [startweek = <number{1-5}>]
           [startmonth = <number{1-12}>]
           [endweekday = <{Sunday|Monday|Tuesday|
Wednesday|Thursday|Friday|Saturday}>]
           [endhour = <number{0-23}>]
           [endweek = <number{1-5}>]
           [endmonth = <number{1-12}>]
```

where:

| | | |
|--------------|---|----------|
| mode | Set daylight saving mode | OPTIONAL |
| startdate | Set the start date of the daylight saving in the absolute mode | OPTIONAL |
| starttime | Set the start time of the daylight saving in the absolute mode | OPTIONAL |
| enddate | Set the end date of the daylight saving in the absolute mode | OPTIONAL |
| endtime | Set the end time of the daylight saving in the absolute mode | OPTIONAL |
| startweekday | Set the start weekday of the daylight saving in the relative mode | OPTIONAL |
| starthour | Set the start hour of the daylight saving in the relative mode | OPTIONAL |
| startweek | Set the start week of the daylight saving in the relative mode | OPTIONAL |
| startmonth | Set the start month of the daylight saving in the relative mode | OPTIONAL |
| endweekday | Set the end weekday of the daylight saving in the relative mode | OPTIONAL |
| endhour | Set the end hour of the daylight saving in the relative mode | OPTIONAL |
| endweek | Set the end week of the daylight saving in the relative mode | OPTIONAL |
| endmonth | Set the end month of the daylight saving in the relative mode | OPTIONAL |

system flush

Flush system configuration.

system ipc config

IPC configuration

SYNTAX:

```
system ipc config [prio-level = <number{0-255}>]
```

where:

| | | |
|------------|----------------------------|----------|
| prio-level | IPC priority traffic level | OPTIONAL |
|------------|----------------------------|----------|

system ra config

Configure remote access parameters.

SYNTAX:

```
system ra config          name = <{}>
                        [state = <{disabled|enabled}>]
                        [secure = <{enabled|disabled}>]
                        [port = <number>]
                        [timeout = <number>]
                        [mode = <{Permanent|Temporary|Schedule}>]
                        [ipintf = <string>]
                        [randompassword = <{enabled|disabled}>]
                        [randomport = <{enabled|disabled}>]
                        [group = <string>]
                        [user = <string>]
                        [todschedule = <string>]
                        [systemservice = <{GUI|webservice}>]
```

where:

| name | Instance name | REQUIRED |
|----------------|--|----------|
| state | Enable/disable RAD. | OPTIONAL |
| secure | Use secure mode (https). | OPTIONAL |
| port | The port number. | OPTIONAL |
| timeout | The timeout value. | OPTIONAL |
| mode | Mode Permanent or Temporary. | OPTIONAL |
| ipintf | The name of the xref to the IP interface. | OPTIONAL |
| randompassword | Create a random password. | OPTIONAL |
| randomport | Use a random port. | OPTIONAL |
| group | The name of the xref to the group keypath. | OPTIONAL |
| user | The name of the xref to the user keypath. | OPTIONAL |
| todschedule | The name of the xref to the ToD schedule. | OPTIONAL |
| systemservice | The system service type. | OPTIONAL |

system ra instadd

Add a remote access instances.

SYNTAX:

```
system ra instadd          name = <string>
```

where:

| name | Instance name | REQUIRED |
|------|---------------|----------|
|------|---------------|----------|

system ra instdelete

Delete remote access instances.

SYNTAX:

```
system ra instdelete          name = <{}>
```

where:

| name | Instance name | REQUIRED |
|------|---------------|----------|
|------|---------------|----------|

system ra list

List remote access instances.

SYNTAX:

```
system ra list [name = <{}>]
```

where:

| | | |
|------|---------------------------|----------|
| name | The name of the instance. | OPTIONAL |
|------|---------------------------|----------|

system ra start

Starts temporary mode.

SYNTAX:

```
system ra start          name = <{}>
```

where:

| name | Instance name | REQUIRED |
|------|---------------|----------|
|------|---------------|----------|

system ra stop

Stops temporary mode.

SYNTAX:

```
system ra stop          name = <{ }>
```

where:

| name | Instance name | REQUIRED |
|------|---------------|----------|
|------|---------------|----------|

system reboot

Reboot the modem.

system reset

Reset to (factory or ISP) defaults: user specific settings will be cleared !

SYNTAX:

```
system reset          factory = <{yes|no}>
                    proceed = <{no|yes}>
```

where:

| | | |
|---------|---------------------------------------|----------|
| factory | Option to reset to factory | REQUIRED |
| proceed | Confirmation for resetting the modem. | REQUIRED |

system settime

Set/Get date, time, timezone, daylight savings time, uptime.

SYNTAX:

```
system settime          [date = <dd/mm/yyyy>]
                        [time = <hh:mm:ss>]
                        [timezone = <( + or -)hh:mm>]
                        [daylightsaving = <{disabled|enabled}>]
                        [geotimezonename = <{(UTC-12:00)|(UTC-11:00)|
(UTC-10:00)|(UTC-09:00)|(UTC-(UTC-03:30)|
(UTC-03:00)|(UTC-02:00)|(UTC-01:00)|(UTC)|(UTC
+01:00)|(UTC+02:00)|(UTC+03:00)|(UTC+03:30)|
(UTC+04:00)|(UTC+04:30)|(UTC+05:00)|(UTC
+05:30)|(UTC+05:45)|(UTC+06:00)|(UTC+06:30)|
(UTC+07:00)|(UTC+08:00)|(UTC+09:00)|(UTC
+09:30)|(UTC+10:00)|(UTC+11:00)|(UTC+12:00)|
(UTC+13:00)}>]
                        [rtc = <{disabled|enabled}>]
```

where:

| | | |
|-----------------|---|----------|
| date | Set the system date | OPTIONAL |
| time | Set the system time | OPTIONAL |
| timezone | Set the system timezone(-12:00...+14:00 / 15 minute resolution) | OPTIONAL |
| daylightsaving | Enable/Disable daylight saving | OPTIONAL |
| geotimezonename | Set the geographical timezone by name | OPTIONAL |
| rtc | Enable/Disable the real time clock | OPTIONAL |

system timedreboot

Set or change editing mode timed reboot

SYNTAX:

```
system timedreboot [state = <{disabled|enabled}>]
                  [time = <number{0-983040}>]
                  [date = <string>]
```

where:

| | | |
|-------|---|----------|
| state | Enable/Disable timed reboot | OPTIONAL |
| time | Change default countdown time (Min). | OPTIONAL |
| date | Set date/time to reboot (DD/MM/YYYY/HH:MM). | OPTIONAL |

tls Commands

| | | |
|--|------------------------------------|---------------|
| <i>tls acs-client cert add</i> | <i>Add a new certificate</i> | see page 1062 |
| <i>tls acs-client cert delete</i> | <i>Delete a certificate</i> | see page 1063 |
| <i>tls acs-client cert list</i> | <i>List certificates</i> | see page 1064 |
| <i>tls acs-client config</i> | <i>Display/modify tls settings</i> | see page 1065 |
| <i>tls https-server cert add</i> | <i>Add a new certificate</i> | see page 1066 |
| <i>tls https-server cert delete</i> | <i>Delete a certificate</i> | see page 1067 |
| <i>tls https-server cert list</i> | <i>List certificates</i> | see page 1068 |
| <i>tls https-server config</i> | <i>Display/modify tls settings</i> | see page 1069 |
| <i>tls remote-upgraded cert add</i> | <i>Add a new certificate</i> | see page 1070 |
| <i>tls remote-upgraded cert delete</i> | <i>Delete a certificate</i> | see page 1071 |
| <i>tls remote-upgraded cert list</i> | <i>List certificates</i> | see page 1072 |
| <i>tls remote-upgraded config</i> | <i>Display/modify tls settings</i> | see page 1073 |
| <i>tls self cert list</i> | <i>List certificates</i> | see page 1074 |

tls acs-client cert add

Add a new certificate

SYNTAX:

```
tls acs-client cert add filename = <string>
```

where:

| | | |
|----------|------------------------------|----------|
| filename | name of the certificate file | REQUIRED |
|----------|------------------------------|----------|

tls acs-client cert delete

Delete a certificate

SYNTAX:

```
tls acs-client cert delete      index = <number>
```

where:

| | | |
|-------|-------------------|----------|
| index | Certificate index | REQUIRED |
|-------|-------------------|----------|

tls acs-client cert list

List certificates

SYNTAX:

```
tls acs-client cert list      [index = <number>]
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--------------------------|----------|
| index | Certificate index | OPTIONAL |
| expand | Display more information | OPTIONAL |

tls acs-client config

Display/modify tls settings

SYNTAX:

```
tls acs-client config      [state = <{disabled|enabled}>]
                           [auth-serv = <{disabled|enabled}>]
                           [valid-date = <{disabled|enabled}>]
                           [valid-domain = <{disabled|enabled}>]
```

where:

| | | |
|--------------|---------------------------------|----------|
| state | SSL/TLS client for ACS state | OPTIONAL |
| auth-serv | Request server authentication | OPTIONAL |
| valid-date | Check certificate validity date | OPTIONAL |
| valid-domain | Check certificate domain | OPTIONAL |

tls https-server cert add

Add a new certificate

SYNTAX:

```
tls https-server cert add filename = <string>
```

where:

| | | |
|----------|------------------------------|----------|
| filename | name of the certificate file | REQUIRED |
|----------|------------------------------|----------|

tls https-server cert delete

Delete a certificate

SYNTAX:

```
tls https-server cert delete    index = <number>
```

where:

| | | |
|-------|-------------------|----------|
| index | Certificate index | REQUIRED |
|-------|-------------------|----------|

tls https-server cert list

List certificates

SYNTAX:

```
tls https-server cert list      [index = <number>]
                               [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--------------------------|----------|
| index | Certificate index | OPTIONAL |
| expand | Display more information | OPTIONAL |

tls https-server config

Display/modify tls settings

SYNTAX:

```
tls https-server config      [state = <{disabled|enabled}>]
                             [auth-client = <{disabled|enabled}>]
                             [valid-date = <{disabled|enabled}>]
```

where:

| | | |
|-------------|---------------------------------|----------|
| state | SSL/TLS server for HTTPS state | OPTIONAL |
| auth-client | Request client authentication | OPTIONAL |
| valid-date | Check certificate validity date | OPTIONAL |

tls remote-upgraded cert add

Add a new certificate

SYNTAX:

```
tls remote-upgraded cert add filename = <string>
```

where:

| | | |
|----------|------------------------------|----------|
| filename | name of the certificate file | REQUIRED |
|----------|------------------------------|----------|

tls remote-upgraded cert delete

Delete a certificate

SYNTAX:

```
tls remote-upgraded cert      index = <number>
delete
```

where:

| | | |
|-------|-------------------|----------|
| index | Certificate index | REQUIRED |
|-------|-------------------|----------|

tls remote-upgraded cert list

List certificates

SYNTAX:

```
tls remote-upgraded cert list [index = <number>]
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--------------------------|----------|
| index | Certificate index | OPTIONAL |
| expand | Display more information | OPTIONAL |

tls remote-upgraded config

Display/modify tls settings

SYNTAX:

```
tls remote-upgraded config      [state = <{disabled|enabled}>]
                                [auth-serv = <{disabled|enabled}>]
                                [valid-date = <{disabled|enabled}>]
```

where:

| | | |
|------------|--|----------|
| state | SSL/TLS client for remote upgraded state | OPTIONAL |
| auth-serv | Request server authentication | OPTIONAL |
| valid-date | Check certificate validity date | OPTIONAL |

tls self cert list

List certificates

SYNTAX:

```
tls self cert list           [index = <number>]
                             [expand = <{disabled|enabled}>]
```

where:

| | | |
|--------|--------------------------|----------|
| index | Certificate index | OPTIONAL |
| expand | Display more information | OPTIONAL |

tunnel Commands

| | | |
|-----------------------------|-----------------------------------|---------------|
| <i>tunnel 6in4 add</i> | <i>add a 6in4 tunnel</i> | see page 1076 |
| <i>tunnel 6in4 delete</i> | <i>delete a 6in4 tunnel</i> | see page 1077 |
| <i>tunnel 6in4 flush</i> | <i>remove all 6in4 tunnels</i> | see page 1078 |
| <i>tunnel 6in4 list</i> | <i>list all 6in4 tunnels</i> | see page 1079 |
| <i>tunnel 6in4 modify</i> | <i>configure a 6in4 tunnel</i> | see page 1080 |
| <i>tunnel 6rd add</i> | <i>add a 6rd tunnel</i> | see page 1081 |
| <i>tunnel 6rd delete</i> | <i>delete a 6rd tunnel</i> | see page 1082 |
| <i>tunnel 6rd flush</i> | <i>remove all 6rd tunnels</i> | see page 1083 |
| <i>tunnel 6rd list</i> | <i>list all 6rd tunnels</i> | see page 1084 |
| <i>tunnel 6rd modify</i> | <i>configure a 6rd tunnel</i> | see page 1085 |
| <i>tunnel 6to4 add</i> | <i>add a 6to4 tunnel</i> | see page 1086 |
| <i>tunnel 6to4 delete</i> | <i>delete a 6to4 tunnel</i> | see page 1087 |
| <i>tunnel 6to4 flush</i> | <i>remove all 6to4 tunnels</i> | see page 1088 |
| <i>tunnel 6to4 list</i> | <i>list all 6to4 tunnels</i> | see page 1089 |
| <i>tunnel 6to4 modify</i> | <i>configure a 6to4 tunnel</i> | see page 1090 |
| <i>tunnel dslite add</i> | <i>add a DS-lite tunnel</i> | see page 1091 |
| <i>tunnel dslite delete</i> | <i>delete a DS-lite tunnel</i> | see page 1092 |
| <i>tunnel dslite flush</i> | <i>remove all DS-lite tunnels</i> | see page 1093 |
| <i>tunnel dslite list</i> | <i>list all DS-lite tunnels</i> | see page 1094 |
| <i>tunnel dslite modify</i> | <i>configure a DS-lite tunnel</i> | see page 1095 |
| <i>tunnel gre add</i> | <i>add a gre tunnel</i> | see page 1096 |
| <i>tunnel gre delete</i> | <i>delete a gre tunnel</i> | see page 1097 |
| <i>tunnel gre flush</i> | <i>remove all gre tunnels</i> | see page 1098 |
| <i>tunnel gre list</i> | <i>list all gre tunnels</i> | see page 1099 |
| <i>tunnel gre modify</i> | <i>configure a gre tunnel</i> | see page 1100 |
| <i>tunnel list</i> | <i>Lists all tunnels.</i> | see page 1101 |

tunnel 6in4 add

add a 6in4 tunnel

SYNTAX:

```
tunnel 6in4 add ifname = <quoted string>
```

where:

| | | |
|--------|---------------------------------|----------|
| ifname | the name of this 6in4 interface | REQUIRED |
|--------|---------------------------------|----------|

tunnel 6in4 delete

delete a 6in4 tunnel

SYNTAX:

```
tunnel 6in4 delete          ifname = <{>
```

where:

| | | |
|--------|--------------------------------|----------|
| ifname | the name of the 6in4 interface | REQUIRED |
|--------|--------------------------------|----------|

tunnel 6in4 flush

remove all 6in4 tunnels

tunnel 6in4 list

list all 6in4 tunnels

tunnel 6in4 modify

configure a 6in4 tunnel

SYNTAX:

```
tunnel 6in4 modify          ifname = <{>
                           [sourceintf = <{loop|Internet|LocalNetwork}>]
                           [source = <ipv4-address>]
                           destination = <ipv4-address>
                           [mtu = <number{1280-65535}>]
                           [dynmtu = <{disabled|enabled}>]
                           [copytos = <{disabled|enabled}>]
```

where:

| | | |
|-------------|---|----------|
| ifname | the name of the 6in4 interface | REQUIRED |
| sourceintf | interface used for outer ip header source address selection | OPTIONAL |
| source | source address of outer ip header | OPTIONAL |
| destination | destination address of outer ip header | REQUIRED |
| mtu | 6in4 interface MTU | OPTIONAL |
| dynmtu | enable dynamic MTU | OPTIONAL |
| copytos | enable TOS field copying from inner to outer ip header | OPTIONAL |

tunnel 6rd add

add a 6rd tunnel

SYNTAX:

```
tunnel 6rd add ifname = <quoted string>
```

where:

| | | |
|--------|--------------------------------|----------|
| ifname | the name of this 6rd interface | REQUIRED |
|--------|--------------------------------|----------|

tunnel 6rd delete

delete a 6rd tunnel

SYNTAX:

```
tunnel 6rd delete ifname = <{>
```

where:

| | | |
|--------|-------------------------------|----------|
| ifname | the name of the 6rd interface | REQUIRED |
|--------|-------------------------------|----------|

tunnel 6rd flush

remove all 6rd tunnels

tunnel 6rd list

list all 6rd tunnels

tunnel 6rd modify

configure a 6rd tunnel

SYNTAX:

```
tunnel 6rd modify      ifname = <{>
                       prefix = <ipv6-mask>
                       [sourceintf = <{loop|Internet|LocalNetwork}>]
                       [source = <ipv4-address>]
                       masklen = <number{0-32}>
                       brs = <ipv4-address list separated by '|'>
                       [mtu = <number{1280-65535}>]
                       [subnet = <ipv6-mask>]
                       [copytos = <{disabled|enabled}>]
                       [pltime = <number>]
                       [vltime = <number>]
```

where:

| | | |
|------------|--|----------|
| ifname | the name of the 6rd interface | REQUIRED |
| prefix | 6rd domain prefix | REQUIRED |
| sourceintf | interface used for outer ip header source address selection | OPTIONAL |
| source | source address of outer ip header | OPTIONAL |
| masklen | IPv4 mask length of the 6rd domain | REQUIRED |
| brs | border relays list | REQUIRED |
| mtu | 6rd interface MTU | OPTIONAL |
| subnet | subnet bits used to instantiate an IPv6 address on the 6rd tunnel interface. | OPTIONAL |
| copytos | enable TOS field copying from inner to outer ip header | OPTIONAL |
| pltime | IPv6 prefix preferred lifetime | OPTIONAL |
| vltime | IPv6 prefix valid lifetime | OPTIONAL |

tunnel 6to4 add

add a 6to4 tunnel

SYNTAX:

```
tunnel 6to4 add ifname = <quoted string>
```

where:

| | | |
|--------|---------------------------------|----------|
| ifname | the name of this 6to4 interface | REQUIRED |
|--------|---------------------------------|----------|

tunnel 6to4 delete

delete a 6to4 tunnel

SYNTAX:

```
tunnel 6to4 delete ifname = <{>
```

where:

| | | |
|--------|--------------------------------|----------|
| ifname | the name of the 6to4 interface | REQUIRED |
|--------|--------------------------------|----------|

tunnel 6to4 flush

remove all 6to4 tunnels

tunnel 6to4 list

list all 6to4 tunnels

tunnel 6to4 modify

configure a 6to4 tunnel

SYNTAX:

```
tunnel 6to4 modify          ifname = <{>
                             [sourceintf = <{loop|Internet|LocalNetwork}>]
                             [source = <ipv4-address>]
                             rrs = <ipv4-address list separated by '|'>
                             [mtu = <number{1280-65535}>]
                             [subnet = <ipv6-mask>]
                             [copytos = <{disabled|enabled}>]
                             [pltime = <number>]
                             [vltime = <number>]
```

where:

| | | |
|------------|---|----------|
| ifname | the name of the 6to4 interface | REQUIRED |
| sourceintf | interface used for outer ip header source address selection | OPTIONAL |
| source | source address of outer ip header | OPTIONAL |
| rrs | relay routers list | REQUIRED |
| mtu | 6to4 interface MTU | OPTIONAL |
| subnet | subnet bits used to instantiate an IPv6 address on the 6to4 tunnel interface. | OPTIONAL |
| copytos | enable TOS field copying from inner to outer ip header | OPTIONAL |
| pltime | IPv6 prefix preferred lifetime | OPTIONAL |
| vltime | IPv6 prefix valid lifetime | OPTIONAL |

tunnel dslite add

add a DS-lite tunnel

SYNTAX:

```
tunnel dslite add ifname = <quoted string>
```

where:

| | | |
|--------|------------------------------------|----------|
| ifname | the name of this DS-lite interface | REQUIRED |
|--------|------------------------------------|----------|

tunnel dslite delete

delete a DS-lite tunnel

SYNTAX:

```
tunnel dslite delete          ifname = <{>
```

where:

| | | |
|--------|-----------------------------------|----------|
| ifname | the name of the DS-lite interface | REQUIRED |
|--------|-----------------------------------|----------|

tunnel dslite flush

remove all DS-lite tunnels

tunnel dslite list

list all DS-lite tunnels

tunnel dslite modify

configure a DS-lite tunnel

SYNTAX:

```
tunnel dslite modify      ifname = <{>
                          [sourceintf = <{loop|Internet|LocalNetwork}>]
                          [source = <ipv6-address>]
                          aftr = <ipv6-address>
                          [mtu = <number{1240-65535}>]
                          [dynmtu = <{disabled|enabled}>]
                          [copytos = <{disabled|enabled}>]
```

where:

| | | |
|------------|---|----------|
| ifname | the name of the DS-lite interface | REQUIRED |
| sourceintf | interface used for outer ip header source address selection | OPTIONAL |
| source | source address of outer ip header | OPTIONAL |
| aftr | address family transition router | REQUIRED |
| mtu | DS-lite interface MTU | OPTIONAL |
| dynmtu | enable dynamic MTU | OPTIONAL |
| copytos | enable TOS field copying from inner to outer ip header | OPTIONAL |

tunnel gre add

add a gre tunnel

SYNTAX:

```
tunnel gre add                ifname = <quoted string>  
                               [protocol = <{ipv4|ipv6|ethbridging}>]
```

where:

| | | |
|----------|--|----------|
| ifname | the name of this gre interface | REQUIRED |
| protocol | Specifies the protocol type of the payload | OPTIONAL |

tunnel gre delete

delete a gre tunnel

SYNTAX:

```
tunnel gre delete ifname = <{>
```

where:

| | | |
|--------|--------------------------------|----------|
| ifname | the name of this gre interface | REQUIRED |
|--------|--------------------------------|----------|

tunnel gre flush

remove all gre tunnels

tunnel gre list

list all gre tunnels

tunnel gre modify

configure a gre tunnel

SYNTAX:

```
tunnel gre modify          ifname = <{>
                           [sourceintf = <{loop|Internet|LocalNetwork}>]
                           [source = <ipv4-address>]
                           [destination = <ipv4-address>]
                           [key = <string>]
                           [checksum = <{disabled|enabled}>]
                           [mtu = <number{68-65535}>]
                           [dynmtu = <{disabled|enabled}>]
                           [copytos = <{disabled|enabled}>]
```

where:

| | | |
|-------------|---|----------|
| ifname | the name of the gre interface | REQUIRED |
| sourceintf | interface used for outer ip header source address selection | OPTIONAL |
| source | source address of outer ip header | OPTIONAL |
| destination | destination address of outer ip header | OPTIONAL |
| key | tunnel key | OPTIONAL |
| checksum | gre checksum option. | OPTIONAL |
| mtu | gre interface MTU | OPTIONAL |
| dynmtu | enable dynamic MTU | OPTIONAL |
| copytos | enable TOS field copying from inner to outer ip header | OPTIONAL |

tunnel list

Lists all tunnels.

upgrade Commands

| | | |
|--------------------------------|---|---------------|
| <i>upgrade config</i> | <i>Display/modify upgrade settings</i> | see page 1104 |
| <i>upgrade debug config</i> | <i>Display debug parameters</i> | see page 1105 |
| <i>upgrade image list</i> | <i>List images</i> | see page 1106 |
| <i>upgrade image modify</i> | <i>Change image parameters</i> | see page 1107 |
| <i>upgrade lastUpgradeInfo</i> | <i>Display last upgrade information</i> | see page 1108 |

upgrade config

Display/modify upgrade settings

SYNTAX:

```
upgrade config          [enable = <{no|yes}>]
                        [attempt = <number>]
                        [trace_level = <number>]
                        [acsContactTimeout = <number>]
                        [guiContactTimeout = <number>]
```

where:

| | | |
|-------------------|--------------------------------------|----------|
| enable | Enable firmware upgrade | OPTIONAL |
| attempt | Track the number of upgrade attempts | OPTIONAL |
| trace_level | Set the trace level | OPTIONAL |
| acsContactTimeout | Set acsContactTimeout (minutes) | OPTIONAL |
| guiContactTimeout | Set guiContactTimeout (minutes) | OPTIONAL |

upgrade debug config

Display debug parameters

upgrade image list

List images

upgrade image modify

Change image parameters

SYNTAX:

```
upgrade image modify      [url = <quoted string>]
                          [username = <string>]
                          [password = <string>]
                          [key = <string>]
```

where:

| | | |
|----------|------------------------------|----------|
| url | Image location URL | OPTIONAL |
| username | HTTP authentication username | OPTIONAL |
| password | HTTP authentication password | OPTIONAL |
| key | Image identifier | OPTIONAL |

upgrade lastUpgradeInfo

Display last upgrade information

upnp Commands

| | | |
|-------------------------------|---|---------------|
| <i>upnp config</i> | <i>Config upnp parameter(s)</i> | see page 1110 |
| <i>upnp debug nonce</i> | <i>To re-generate the nonce string.</i> | see page 1111 |
| <i>upnp debug traceconfig</i> | <i>Enable or disable tracing.</i> | see page 1112 |
| <i>upnp flush</i> | <i>Flushes upnp config (i.e. to defaults)</i> | see page 1113 |
| <i>upnp list</i> | <i>List all registered devices</i> | see page 1114 |
| <i>upnp listmask</i> | <i>List all mask and security devices</i> | see page 1115 |

upnp config

Config upnp parameter(s)

SYNTAX:

```
upnp config [maxage = <number{60-999999}>]
            [writemode = <{full|natonly|readonly}>]
            [safenat = <{disabled|enabled}>]
            [preferredaddresses = <string>]
            [upnpautosave = <{disabled|enabled}>]
            [dslfautosave = <{disabled|enabled}>]
            [autosavedelay = <number{30-45}>]
            [onlydefault = <{disabled|enabled}>]
```

where:

| | | |
|--------------------|--|----------|
| maxage | ssdp advertisements MAX-AGE (default = 1800) | OPTIONAL |
| writemode | Configuration access level for UPnP | OPTIONAL |
| safenat | Enable / disable check on safe nat entries (limited to own host) | OPTIONAL |
| preferredaddresses | CSV list of preferred ip addresses for UPnP (1 per lan ip-interface) | OPTIONAL |
| upnpautosave | Enable / disable upnp auto save | OPTIONAL |
| dslfautosave | Enable / disable TR-064 auto save | OPTIONAL |
| autosavedelay | Auto save delay time (sec) | OPTIONAL |
| onlydefault | Only advertise the default WAN connection | OPTIONAL |

upnp debug nonce

To re-generate the nonce string.

SYNTAX:

```
upnp debug nonce [type = <{upnp|tr64|wfa}>]
```

where:

| | | |
|------|--------------------------------------|----------|
| type | Specify device type for nonce string | OPTIONAL |
|------|--------------------------------------|----------|

upnp debug traceconfig

Enable or disable tracing.

SYNTAX:

```
upnp debug traceconfig [level = <number>]
```

where:

| | | |
|-------|--------------------------|----------|
| level | Set the tracelevel (0-2) | OPTIONAL |
|-------|--------------------------|----------|

upnp flush

Flushes upnp config (i.e. to defaults)

upnp list

List all registered devices

SYNTAX:

```
upnp list [verbose = <number{0-2}>]
```

where:

| | | |
|---------|-----------------------------|----------|
| verbose | Verbose level (default = 1) | OPTIONAL |
|---------|-----------------------------|----------|

upnp listmask

List all mask and security devices

user Commands

| | | |
|--------------------|--------------------------------|---------------|
| <i>user add</i> | <i>Add a user.</i> | see page 1118 |
| <i>user config</i> | <i>Modify the user.</i> | see page 1119 |
| <i>user delete</i> | <i>Delete a user.</i> | see page 1120 |
| <i>user flush</i> | <i>Flush the users.</i> | see page 1121 |
| <i>user list</i> | <i>Display the users.</i> | see page 1122 |
| <i>user rights</i> | <i>Display session rights.</i> | see page 1123 |

user add

Add a user.

SYNTAX:

```

user add                name = <string>
                        password = <password>
                        role = <>
                        [hash2 = <string>]
                        [crypt = <string>]
                        [descr = <quoted string>]
                        [defuser = <{disabled|enabled}>]
                        [defremadmin = <{disabled|enabled}>]
                        [deflocadmin = <{disabled|enabled}>]
    
```

where:

| | | |
|-------------|--|----------|
| name | User name. | REQUIRED |
| password | User password. | REQUIRED |
| role | Role name. | REQUIRED |
| hash2 | The MD5 hash. | OPTIONAL |
| crypt | The crypt password. | OPTIONAL |
| descr | User description. | OPTIONAL |
| defuser | Set this user as the default user. | OPTIONAL |
| defremadmin | Set this user as the default remote administrator. | OPTIONAL |
| deflocadmin | Set this user as the default local administrator. | OPTIONAL |

user config

Modify the user.

SYNTAX:

```
user config          name = <{Administrator|tech}>
                    [password = <password>]
                    [role = <>]
                    [descr = <quoted string>]
                    [defuser = <{disabled|enabled}>]
                    [defremadmin = <{disabled|enabled}>]
                    [deflocadmin = <{disabled|enabled}>]
```

where:

| | | |
|-------------|--|----------|
| name | User name. | REQUIRED |
| password | User password. | OPTIONAL |
| role | Role name. | OPTIONAL |
| descr | User description. | OPTIONAL |
| defuser | Set this user as the default user. | OPTIONAL |
| defremadmin | Set this user as the default remote administrator. | OPTIONAL |
| deflocadmin | Set this user as the default local administrator. | OPTIONAL |

user delete

Delete a user.

SYNTAX:

```
user delete name = <{Administrator|tech}>
```

where:

| | | |
|------|------------|----------|
| name | User name. | REQUIRED |
|------|------------|----------|

user flush

Flush the users.

user list

Display the users.

SYNTAX:

```
user list [name = <{Administrator|tech}>]
          [channel = <{ftp|telnet|http|mdap|serial}>]
          [origin = <{lan|wan|local|wlan}>]
          [secure = <{disabled|enabled}>]
```

where:

| | | |
|---------|------------------------------|----------|
| name | User name. | OPTIONAL |
| channel | The selected channel. | OPTIONAL |
| origin | The selected origin. | OPTIONAL |
| secure | The selected security level. | OPTIONAL |

user rights

Display session rights.

voice Commands

| | | |
|-----------------------------------|---|---------------|
| <i>voice cac config</i> | <i>Configure call admission control</i> | see page 1130 |
| <i>voice cac list</i> | <i>Show the call admission control</i> | see page 1131 |
| <i>voice calllist config</i> | <i>Configure the calllist general parameters</i> | see page 1132 |
| <i>voice calllist list</i> | <i>Display the calllist general parameters</i> | see page 1133 |
| <i>voice codec amr config</i> | <i>Enable/Disable an AMR mode</i> | see page 1134 |
| <i>voice codec amr list</i> | <i>Show the AMR mode configuration</i> | see page 1135 |
| <i>voice codec config</i> | <i>Configure a CODEC capability</i> | see page 1136 |
| <i>voice codec dynamic config</i> | <i>Configure a dynamic CODEC capability</i> | see page 1137 |
| <i>voice codec dynamic list</i> | <i>Show the dynamic CODEC capability configuration</i> | see page 1138 |
| <i>voice codec list</i> | <i>Show the CODEC capability configuration</i> | see page 1139 |
| <i>voice config</i> | <i>Configure the general parameters</i> | see page 1140 |
| <i>voice country config</i> | <i>Configure country</i> | see page 1142 |
| <i>voice country countrylist</i> | <i>List available countries</i> | see page 1143 |
| <i>voice country list</i> | <i>Show the selected country</i> | see page 1144 |
| <i>voice debug exec</i> | <i>Execute a 'Trace & Debug' command. For qualified personnel only.</i> | see page 1145 |
| <i>voice dhcp config</i> | <i>Configure the DHCP parameters</i> | see page 1146 |
| <i>voice dhcp list</i> | <i>Show the configured DHCP parameters</i> | see page 1147 |
| <i>voice dialplan add</i> | <i>Add an entry in the dialplan</i> | see page 1148 |
| <i>voice dialplan delete</i> | <i>Delete an entry in the dialplan</i> | see page 1149 |
| <i>voice dialplan flush</i> | <i>Delete all user-entered dialplan entries</i> | see page 1150 |
| <i>voice dialplan list</i> | <i>Display the complete dialplan</i> | see page 1151 |
| <i>voice dialplan modify</i> | <i>Modify an entry in the dialplan</i> | see page 1152 |
| <i>voice dns config</i> | <i>Configure DNS</i> | see page 1153 |
| <i>voice dns list</i> | <i>Show the DNS configuration</i> | see page 1154 |
| <i>voice fax config</i> | <i>Configure the fax parameters</i> | see page 1155 |
| <i>voice fax list</i> | <i>Show the fax configuration</i> | see page 1156 |
| <i>voice fxoport config</i> | <i>Configure the FXO port parameters</i> | see page 1157 |

| | | |
|------------------------------------|---|---------------|
| <i>voice fxoport list</i> | <i>Show the FXO port configuration</i> | see page 1158 |
| <i>voice fxsport config</i> | <i>Configure the FXS port parameters</i> | see page 1159 |
| <i>voice fxsport list</i> | <i>Show the FXS port configuration</i> | see page 1160 |
| <i>voice list</i> | <i>Display the general parameters</i> | see page 1161 |
| <i>voice localmap add</i> | <i>Add a dialplan for local/internal calls</i> | see page 1162 |
| <i>voice localmap delete</i> | <i>Remove a dialplan for local/internal calls</i> | see page 1163 |
| <i>voice localmap flush</i> | <i>Flush all dialplan for local/internal calls</i> | see page 1164 |
| <i>voice localmap list</i> | <i>List all dialplan info for local/internal calls</i> | see page 1165 |
| <i>voice localmap modify</i> | <i>Modify a dialplan for local/internal calls</i> | see page 1166 |
| <i>voice localmap ports add</i> | <i>Add a mapping between the localmap and a port</i> | see page 1167 |
| <i>voice localmap ports delete</i> | <i>Remove a mapping between the localmap and a port</i> | see page 1168 |
| <i>voice localmap ports flush</i> | <i>Flush all mappings between the localmap and a port</i> | see page 1169 |
| <i>voice numbertranslAC add</i> | <i>Add one number translate</i> | see page 1170 |
| <i>voice numbertranslAC delete</i> | <i>Delete one number translate</i> | see page 1171 |
| <i>voice numbertranslAC flush</i> | <i>Flush all number translate</i> | see page 1172 |
| <i>voice numbertranslAC list</i> | <i>Show all number translate</i> | see page 1173 |
| <i>voice numbtransl config</i> | <i>Configure number translation</i> | see page 1174 |
| <i>voice numbtransl list</i> | <i>Show the number translation</i> | see page 1175 |
| <i>voice pb add</i> | <i>Add phonebook entry in the phonebook</i> | see page 1176 |
| <i>voice portmap add</i> | <i>Add portmap</i> | see page 1177 |
| <i>voice portmap delete</i> | <i>Delete portmap</i> | see page 1178 |
| <i>voice portmap flush</i> | <i>Flush all portmap entries</i> | see page 1179 |
| <i>voice portmap list</i> | <i>Show all portmaps</i> | see page 1180 |
| <i>voice profile add</i> | <i>Add profile</i> | see page 1181 |
| <i>voice profile delete</i> | <i>Delete profile</i> | see page 1182 |
| <i>voice profile flush</i> | <i>Flush all profiles</i> | see page 1183 |
| <i>voice profile list</i> | <i>Show all profiles</i> | see page 1184 |
| <i>voice profile modify</i> | <i>Modify profile</i> | see page 1185 |
| <i>voice qos config</i> | <i>Configure the QOS parameters</i> | see page 1186 |

| | | |
|--|--|---------------|
| <i>voice qos list</i> | <i>Show the QOS configuration</i> | see page 1187 |
| <i>voice ringing descrtable add</i> | <i>Add a ringing description</i> | see page 1188 |
| <i>voice ringing descrtable delete</i> | <i>Delete a ringing description</i> | see page 1189 |
| <i>voice ringing descrtable flush</i> | <i>Flush all ringing descriptions</i> | see page 1190 |
| <i>voice ringing descrtable list</i> | <i>Show all ringing descriptions</i> | see page 1191 |
| <i>voice ringing descrtable modify</i> | <i>Modify ring description</i> | see page 1192 |
| <i>voice ringing descrtable set</i> | <i>Set a specific profile for future ringing modifications (current value = all)</i> | see page 1193 |
| <i>voice ringing eventtable flush</i> | <i>Flush all ringing events</i> | see page 1194 |
| <i>voice ringing eventtable list</i> | <i>Show all ringing events</i> | see page 1195 |
| <i>voice ringing eventtable modify</i> | <i>Modify a ringing event</i> | see page 1196 |
| <i>voice ringing eventtable set</i> | <i>Set a specific profile for future ringing modifications (current value = all)</i> | see page 1197 |
| <i>voice ringing patterntable add</i> | <i>Add a ringing pattern</i> | see page 1198 |
| <i>voice ringing patterntable delete</i> | <i>Delete a ringing pattern</i> | see page 1199 |
| <i>voice ringing patterntable flush</i> | <i>Flush all ringing patterns</i> | see page 1200 |
| <i>voice ringing patterntable list</i> | <i>Show all ringing patterns</i> | see page 1201 |
| <i>voice ringing patterntable modify</i> | <i>Modify a ringing pattern</i> | see page 1202 |
| <i>voice ringing patterntable set</i> | <i>Set a specific profile for future ringing modifications (current value = all)</i> | see page 1203 |
| <i>voice security config</i> | <i>Configure the security parameters</i> | see page 1204 |
| <i>voice security list</i> | <i>Show the security configuration</i> | see page 1205 |
| <i>voice services 3gpp config</i> | <i>General 3gpp configuration</i> | see page 1206 |
| <i>voice services 3gpp list</i> | <i>Show the 3gpp configuration</i> | see page 1207 |
| <i>voice services activate</i> | <i>Activate a supplementary service</i> | see page 1208 |
| <i>voice services assign</i> | <i>Assign a servicecode to a supplementary service in standard mode</i> | see page 1209 |
| <i>voice services assign_pxsc</i> | <i>Assign a servicecode to a supplementary service in non_standard mode</i> | see page 1210 |
| <i>voice services config</i> | <i>General supplementary service configuration</i> | see page 1211 |
| <i>voice services deactivate</i> | <i>Deactivate a supplementary service</i> | see page 1213 |
| <i>voice services flush</i> | <i>Flush all supplementary services</i> | see page 1214 |

| | | |
|---|--|---------------|
| <i>voice services list</i> | <i>Show the supplementary service configuration</i> | see page 1215 |
| <i>voice services provision</i> | <i>Provision a supplementary service</i> | see page 1216 |
| <i>voice services servicelist</i> | <i>Show the supplementary service configuration</i> | see page 1217 |
| <i>voice services soc config</i> | <i>General switching order configuration</i> | see page 1218 |
| <i>voice services soc list</i> | <i>Show the switching order configuration</i> | see page 1219 |
| <i>voice services soc modify</i> | <i>Configure switching order codes</i> | see page 1220 |
| <i>voice services soc soclist</i> | <i>Show the switching order codes</i> | see page 1221 |
| <i>voice services withdraw</i> | <i>Withdraw a supplementary service</i> | see page 1222 |
| <i>voice sip config</i> | <i>Configure the SIP general parameters</i> | see page 1223 |
| <i>voice sip inboundauth config</i> | <i>Configure which methods should be authenticated</i> | see page 1228 |
| <i>voice sip inboundauth list</i> | <i>List the methods</i> | see page 1229 |
| <i>voice sip list</i> | <i>Display the SIP general parameters</i> | see page 1230 |
| <i>voice sip responsemap add</i> | <i>Add a SIP response</i> | see page 1231 |
| <i>voice sip responsemap delete</i> | <i>Delete a SIP response</i> | see page 1232 |
| <i>voice sip responsemap flush</i> | <i>Flush all SIP responses</i> | see page 1233 |
| <i>voice sip responsemap list</i> | <i>Show all SIP responses</i> | see page 1234 |
| <i>voice sip responsemap modify</i> | <i>Modify a SIP response</i> | see page 1235 |
| <i>voice sip sdp annexa config</i> | <i>Configure the SDP AnnexA parameters</i> | see page 1236 |
| <i>voice sip sdp annexb config</i> | <i>Configure the SDP annexb parameters</i> | see page 1237 |
| <i>voice sip sdp config</i> | <i>Configure the SDP general parameters</i> | see page 1238 |
| <i>voice sip sdp list</i> | <i>List the SDP general parameters</i> | see page 1239 |
| <i>voice sip sdp silencesupp config</i> | <i>Configure the SDP Silence Supp parameters</i> | see page 1240 |
| <i>voice sip sdp vad config</i> | <i>Configure the SDP Vad parameters</i> | see page 1241 |
| <i>voice state</i> | <i>show VOIP service states</i> | see page 1242 |
| <i>voice stats list</i> | <i>Show voice statistics</i> | see page 1243 |
| <i>voice stats reset</i> | <i>Reset voice statistics</i> | see page 1244 |
| <i>voice tone descrtable add</i> | <i>Add tone description</i> | see page 1245 |
| <i>voice tone descrtable delete</i> | <i>Delete tone description</i> | see page 1246 |
| <i>voice tone descrtable flush</i> | <i>Flush all tone descriptions</i> | see page 1247 |
| <i>voice tone descrtable list</i> | <i>Show all tone descriptions</i> | see page 1248 |

| | | |
|---------------------------------------|--------------------------------|---------------|
| <i>voice tone descrtable modify</i> | <i>Modify tone description</i> | see page 1249 |
| <i>voice tone eventtable flush</i> | <i>Flush all tone events</i> | see page 1250 |
| <i>voice tone eventtable list</i> | <i>Show all tone events</i> | see page 1251 |
| <i>voice tone eventtable modify</i> | <i>Modify tone event</i> | see page 1252 |
| <i>voice tone patterntable add</i> | <i>Add tone pattern</i> | see page 1253 |
| <i>voice tone patterntable delete</i> | <i>Delete tone pattern</i> | see page 1254 |
| <i>voice tone patterntable flush</i> | <i>Flush all tone patterns</i> | see page 1255 |
| <i>voice tone patterntable list</i> | <i>Show all tone patterns</i> | see page 1256 |
| <i>voice tone patterntable modify</i> | <i>Modify tone pattern</i> | see page 1257 |
| <i>voice uamap add</i> | <i>Add uamap</i> | see page 1258 |
| <i>voice uamap delete</i> | <i>Delete uamap</i> | see page 1259 |
| <i>voice uamap flush</i> | <i>Flush all uamap entries</i> | see page 1260 |
| <i>voice uamap list</i> | <i>Show all uamaps</i> | see page 1261 |

voice cac config

Configure call admission control

SYNTAX:

```
voice cac config [max#portsperprofile = <{one|all}>]
```

where:

| | | |
|---------------------|--|----------|
| max#portsperprofile | The maximum number of ports that can be used with a common profile | OPTIONAL |
|---------------------|--|----------|

voice cac list

Show the call admission control

voice calllist config

Configure the calllist general parameters

SYNTAX:

```
voice calllist config      [outgcallstosamedest = <{allcalls|
                           onlylastcall}>]
                           [anonymouscalls = <{include|withheld}>]
                           [privatecalls = <{include|withheld}>]
                           [incomingcallsselection = <{profile|port}>]
                           [outgoingcallsselection = <{profile|port}>]
```

where:

| | | |
|------------------------|--|----------|
| outgcallstosamedest | include all outgoing calls to same destination | OPTIONAL |
| anonymouscalls | include anonymous calls | OPTIONAL |
| privatecalls | include private calls | OPTIONAL |
| incomingcallsselection | the way incoming calls are selected | OPTIONAL |
| outgoingcallsselection | the way outgoing calls are selected | OPTIONAL |

voice callist list

Display the callist general parameters

voice codec amr config

Enable/Disable an AMR mode

SYNTAX:

```
voice codec amr config      mode = <number{0-7}>
                             [status = <{disabled|enabled}>]
```

where:

| | | |
|--------|-----------------------------|----------|
| mode | The AMR mode | REQUIRED |
| status | Enable or disable this mode | OPTIONAL |

voice codec amr list

Show the AMR mode configuration

voice codec config

Configure a CODEC capability

SYNTAX:

```
voice codec config          type = <{g711u|g711a|g722|g723_1|g726_16|
                             g726_24|g726_32|g726_40|g729|ilbc|amr}>
                             [ptime = <{10|30|20}>]
                             [ptime_g723 = <{30}>]
                             [ptime_ilbc = <{20|30}>]
                             [vad = <{disabled|enabled}>]
                             [priority = <number{1-13}>]
                             [status = <{disabled|enabled}>]
```

where:

| | | |
|------------|--|----------|
| type | The codec type | REQUIRED |
| ptime | The packet time | OPTIONAL |
| ptime_g723 | The packet time | OPTIONAL |
| ptime_ilbc | The packet time | OPTIONAL |
| vad | Enable or disable Voice Activity Detection | OPTIONAL |
| priority | The codec capability priority | OPTIONAL |
| status | Enable or disable this capability | OPTIONAL |

voice codec dynamic config

Configure a dynamic CODEC capability

SYNTAX:

```
voice codec dynamic config      type = <{rfc2833|g723_1|g726_16|g726_24|
                                g726_32|g726_40|ilbc|amr}>
                                payloadtype = <number{96-128}>
```

where:

| | | |
|-------------|------------------|----------|
| type | The codec type | REQUIRED |
| payloadtype | The payload type | REQUIRED |

voice codec dynamic list

Show the dynamic CODEC capability configuration

voice codec list

Show the CODEC capability configuration

voice config

Configure the general parameters

SYNTAX:

```
voice config
    [autofxo = <{disabled|enabled}>]
    [digitrelay = <{auto|inband|rfc2833|
    signalling|forcedsignalling}>]
    [click2dial_ports = <{FXS1|FXS2|all}>]
    [rtp_porrange = <string>]
    [sign_internal = <{external|internal}>]
    [goingonhookeffect = <{endallcalls|
    endactivecall}>]
    [static_intf = <{disabled|enabled}>]
    [intf = <{loop|Internet|LocalNetwork|""}>]
    [secondintf = <{loop|Internet|
    LocalNetwork|""}>]
    [endofnumber = <{#|*|none}>]
    [countrycode = <number>]
    [delayedisconnect = <{enabled|disabled}>]
    [delayedisconnectoverride = <{none|
    INVITE_no_SDP}>]
    [delayedisconnecttimer = <number>]
    [ringmuteduration = <number>]
    [feature-mngt = <{internal|external}>]
    [call-setup-failure-timeout = <number>]
    [CCBS-invoked-timeout = <number>]
    [nocallsetupmsg = <{never|unav-numb}>]
    [syslogscope = <{none|all|only-stats|only-dm-
    events|only-msgs|all}>]
    [pstnsoftswitchover = <{enabled|disabled}>]
    [no-answer-timer = <number>]
```

where:

| | | |
|-------------------|---|----------|
| autofxo | Automatically make FXO calls when not registered | OPTIONAL |
| digitrelay | Set the digit relay mode | OPTIONAL |
| click2dial_ports | Set the click to dial port | OPTIONAL |
| rtp_porrange | The RTP port range <[startport]-[endport]> | OPTIONAL |
| sign_internal | Signalling for local calls is kept local or external | OPTIONAL |
| goingonhookeffect | Effect on Phones Going ONHOOK(EndActiveCall ENDALLCALLS) | OPTIONAL |
| static_intf | Use a static (configured) interface to look for the IP address or not | OPTIONAL |
| intf | The name of a IP interface to be used for VOIP traffic, NULL string to remove it. | OPTIONAL |

| | | |
|----------------------------|--|----------|
| secondintf | The name of a backup IP interface to be used for VOIP traffic, NULL string to remove it. | OPTIONAL |
| endofnumber | The end of number character for dialled number starting with a cipher | OPTIONAL |
| countrycode | Local countrycode | OPTIONAL |
| delayedisconnect | Enable or disable the delayed disconnect feature | OPTIONAL |
| delayedisconnectoverride | Delayed disconnect override | OPTIONAL |
| delayedisconnecttimer | Delayed disconnect timer (seconds) | OPTIONAL |
| ringmuteduration | Early media mute duration (in ms) | OPTIONAL |
| feature-mngt | Feature management internal or external | OPTIONAL |
| call-setup-failure-timeout | Timeout for the callsetup failed state (in ms). 0 means timer disabled | OPTIONAL |
| CCBS-invoked-timeout | Timeout for the CCBS invoked state (in ms). 0 means timer disabled | OPTIONAL |
| nocallsetupmsg | Send call setup message | OPTIONAL |
| syslogscope | Syslog Scope | OPTIONAL |
| pstnsoftswitchover | Enable or disable PSTN Soft Switch Over | OPTIONAL |
| no-answer-timer | No answer timer | OPTIONAL |

voice country config

Configure country

SYNTAX:

```
voice country config          country = <{etsi|argentina|australia|austria|
                             belgium|brazil|canada|chile|greece80|hungary|
                             iceland|italy|latvia|macedonia|macedonia_dtmf|
                             mexico|netherlands|newzealand1|newzealand2|
                             northamerica|norway|portugal3|portugal2|
                             portugal1|ksa|ksa_dtmf|singapore|slovenia|
                             spain|sweden|uae|uk}>
```

where:

| | | |
|---------|--|----------|
| country | Load this country's specific settings into the DSP | REQUIRED |
|---------|--|----------|

voice country countrylist

List available countries

voice country list

Show the selected country

voice debug exec

Execute a 'Trace & Debug' command. For qualified personnel only.

SYNTAX:

```
voice debug exec          cmd = <quoted string>
```

where:

| | | |
|-----|-----------------------------|----------|
| cmd | The debug command (or help) | REQUIRED |
|-----|-----------------------------|----------|

voice dhcp config

Configure the DHCP parameters

SYNTAX:

```
voice dhcp config [option120effect = <{dynamic|static}>]
                  [option120FQDNeffectonport = <{none|0}>]
                  [option120FQDNeffectontransport = <{none|
                  undefined}>]
```

where:

| | | |
|--------------------------------|---|----------|
| option120effect | The effect of the dynamic option 120 configuration (static dynamic) | OPTIONAL |
| option120FQDNeffectonport | The effect of the dynamic option 120 configuration (none 0) | OPTIONAL |
| option120FQDNeffectontransport | The effect of the dynamic option 120 configuration (none undefined) | OPTIONAL |

voice dhcp list

Show the configured DHCP parameters

voice dialplan add

Add an entry in the dialplan

SYNTAX:

```
voice dialplan add          prefix = <string>
                           defaultport = <{FXS1|FXS2|FXO|VoIP|NA}>
                           fallbackport = <{FXS1|FXS2|FXO|VoIP|NA}>
                           priority = <{NA|Low|High}>
                           fallback = <{disabled|enabled}>
                           minimumdigits = <number{1-31}>
                           maximumdigits = <number{1-31}>
                           posofmodify = <number{0-31}>
                           remnumdigits = <number{0-31}>
                           [insert = <string>]
                           rescan = <{no|yes}>
                           data = <{no|yes}>
                           action = <{none|ROUTE_excl_eon|ROUTE_incl_eon|
ROUTE_excl_eon_PSO|ROUTE_incl_eon_PSO|
ROUTE_overlap_sending}>
```

where:

| | | |
|---------------|--|----------|
| prefix | The prefix, identifies this entry | REQUIRED |
| defaultport | The default outgoing port | REQUIRED |
| fallbackport | The fallback outgoing port | REQUIRED |
| priority | The priority of the entry | REQUIRED |
| fallback | The fallback mechanism status of this entry | REQUIRED |
| minimumdigits | The minimum number of digits | REQUIRED |
| maximumdigits | The maximum number of digits | REQUIRED |
| posofmodify | Startposition at which a number of digits must be removed | REQUIRED |
| remnumdigits | The number of digits that need to be removed from the complete number | REQUIRED |
| insert | String which must be inserted at PosOfModify after removing RemNumDigits | OPTIONAL |
| rescan | Rescanning of the number needed or not | REQUIRED |
| data | This entry is used for data calls or not | REQUIRED |
| action | Action parameter | REQUIRED |

voice dialplan delete

Delete an entry in the dialplan

SYNTAX:

```
voice dialplan delete          prefix = <{ }>
```

where:

| | | |
|--------|------------|----------|
| prefix | The prefix | REQUIRED |
|--------|------------|----------|

voice dialplan flush

Delete all user-entered dialplan entries

voice dialplan list

Display the complete dialplan

voice dialplan modify

Modify an entry in the dialplan

SYNTAX:

```
voice dialplan modify      prefix = <{ }>
                          newprefix = <string>
                          defaultport = <{FXS1|FXS2|FXO|VoIP|NA}>
                          fallbackport = <{FXS1|FXS2|FXO|VoIP|NA}>
                          priority = <{NA|Low|High}>
                          fallback = <{disabled|enabled}>
                          minimumdigits = <number{1-31}>
                          maximumdigits = <number{1-31}>
                          posofmodify = <number{0-31}>
                          remnumdigits = <number{0-31}>
                          [insert = <string>]
                          rescan = <{no|yes}>
                          data = <{no|yes}>
                          action = <{none|ROUTE_excl_eon|ROUTE_incl_eon|
ROUTE_excl_eon_PSO|ROUTE_incl_eon_PSO|
ROUTE_overlap_sending}>
```

where:

| | | |
|---------------|--|----------|
| prefix | The prefix | REQUIRED |
| newprefix | The prefix, identifies this entry | REQUIRED |
| defaultport | The default outgoing port | REQUIRED |
| fallbackport | The fallback outgoing port | REQUIRED |
| priority | The priority of the entry | REQUIRED |
| fallback | The fallback mechanism status of this entry | REQUIRED |
| minimumdigits | The minimum number of digits | REQUIRED |
| maximumdigits | The maximum number of digits | REQUIRED |
| posofmodify | Startposition at which a number of digits must be removed | REQUIRED |
| remnumdigits | The number of digits that need to be removed from the complete number | REQUIRED |
| insert | String which must be inserted at PosOfModify after removing RemNumDigits | OPTIONAL |
| rescan | Rescanning of the number needed or not | REQUIRED |
| data | This entry is used for data calls or not | REQUIRED |
| action | Action parameter | REQUIRED |

voice dns config

Configure DNS

SYNTAX:

```
voice dns config [startentry = <{first|random}>]
                 [maxentries = <number{1-24}>]
```

where:

| | | |
|------------|---|----------|
| startentry | Entry to start with in the registration procedure | OPTIONAL |
| maxentries | Maximum nbr of used entries in a DNS response | OPTIONAL |

voice dns list

Show the DNS configuration

voice fax config

Configure the fax parameters

SYNTAX:

```
voice fax config          [detect_timeout = <number{0-120}>]
                        [early-detect-faxmodem = <{enabled|disabled}>]
                        [transport = <{inband_auto|inband_reneg|
strict-inband-reneg|t38}>]
                        [udptl_redun = <number{0-3}>]
                        [VBDcodec = <{G711A|G711U|G711A+U}>]
```

where:

| | | |
|-----------------------|--|----------|
| detect_timeout | The time-out in seconds used to detect FAX(0 is no time-out) | OPTIONAL |
| early-detect-faxmodem | Detect fax or modem early | OPTIONAL |
| transport | The type of fax transport | OPTIONAL |
| udptl_redun | The number of secondary IFP packets | OPTIONAL |
| VBDcodec | VBDcodec to use during fax re-invite | OPTIONAL |

voice fax list

Show the fax configuration

voice fxoport config

Configure the FXO port parameters

SYNTAX:

```
voice fxoport config          [fxodisconnect = <number{500-5000}>]
                              [incfxodest = <{FXS|FXS1|FXS2|all|none}>]
```

where:

| | | |
|---------------|---|----------|
| fxodisconnect | The FXO disconnect timer (in ms) | OPTIONAL |
| incfxodest | Select destination for incoming FXO calls | OPTIONAL |

voice fxoport list

Show the FXO port configuration

voice fxsport config

Configure the FXS port parameters

SYNTAX:

```
voice fxsport config          [widebandsupport = <{disabled|enabled}>]
                             [interdigit = <number{10-30000}>]
                             [interdigitOpen = <number{10-30000}>]
                             [fxs1txgain = <number{-20-20}>]
                             [fxs1rxgain = <number{-20-20}>]
                             [fxs2txgain = <number{-20-20}>]
                             [fxs2rxgain = <number{-20-20}>]
```

where:

| | | |
|-----------------|--|----------|
| widebandsupport | Support wideband codecs on FXS phones | OPTIONAL |
| interdigit | The interdigit timer (in ms) | OPTIONAL |
| interdigitOpen | The closed number interdigit timer (in ms) | OPTIONAL |
| fxs1txgain | The FXS1 egress Dsp gain value (in db) | OPTIONAL |
| fxs1rxgain | The FXS1 ingress Dsp gain value (in db) | OPTIONAL |
| fxs2txgain | The FXS2 egress Dsp gain value (in db) | OPTIONAL |
| fxs2rxgain | The FXS2 ingress Dsp gain value (in db) | OPTIONAL |

voice fxsport list

Show the FXS port configuration

voice list

Display the general parameters

voice localmap add

Add a dialplan for local/internal calls

SYNTAX:

```
voice localmap add          name = <quoted string>
                             number = <string>
                             [hidden = <{yes|no}>]
```

where:

| | | |
|--------|--|----------|
| name | The name of the local/internal call dialplan | REQUIRED |
| number | The number to identify the internal call dialplan | REQUIRED |
| hidden | should this number be hidden in internal call list | OPTIONAL |

voice localmap delete

Remove a dialplan for local/internal calls

SYNTAX:

```
voice localmap delete          index = <{0|1}>
```

where:

| | | |
|-------|---|----------|
| index | The index of the local/internal call dialplan | REQUIRED |
|-------|---|----------|

voice localmap flush

Flush all dialplan for local/internal calls

voice localmap list

List all dialplan info for local/internal calls

voice localmap modify

Modify a dialplan for local/internal calls

SYNTAX:

```
voice localmap modify          index = <{0|1}>
                               [name = <quoted string>]
                               [number = <string>]
                               [hidden = <{yes|no}>]
```

where:

| | | |
|--------|--|----------|
| index | The index of the local/internal call dialplan | REQUIRED |
| name | The name of the local/internal call dialplan | OPTIONAL |
| number | The number to identify the internal call dialplan | OPTIONAL |
| hidden | should this number be hidden in internal call list | OPTIONAL |

voice localmap ports add

Add a mapping between the localmap and a port

SYNTAX:

```
voice localmap ports add      index = <{0|1}>
                               voiceport = <{FXS1|FXS2}>
```

where:

| | | |
|-----------|---|----------|
| index | The index of the local/internal call dialplan | REQUIRED |
| voiceport | The specific phone to be linked to the localmap | REQUIRED |

voice localmap ports delete

Remove a mapping between the localmap and a port

SYNTAX:

```
voice localmap ports delete      index = <{0|1}>
                                voiceport = <{FXS1|FXS2}>
```

where:

| | | |
|-----------|---|----------|
| index | The index of the local/internal call dialplan | REQUIRED |
| voiceport | The specific phone to be linked to the localmap | REQUIRED |

voice localmap ports flush

Flush all mappings between the localmap and a port

SYNTAX:

```
voice localmap ports flush      index = <{0|1}>
```

where:

| | | |
|-------|---|----------|
| index | The index of the local/internal call dialplan | REQUIRED |
|-------|---|----------|

voice numbertranslAC add

Add one number translate

SYNTAX:

```
voice numbertranslAC add      level = <number>
                              areacode = <string>
                              [action = <{showareacode|hideareacode}>]
                              [prefix = <string>]
                              [delete = <number>]
                              [executeprefdel = <{always|insideareacode}>]
```

where:

| | | |
|----------------|---|----------|
| level | The prefix name you want to delete | REQUIRED |
| areacode | Area code you want to set | REQUIRED |
| action | Show area code or not | OPTIONAL |
| prefix | Prefix you like to add before area code | OPTIONAL |
| delete | How many chars you want to delete | OPTIONAL |
| executeprefdel | When to execute prefix or delete | OPTIONAL |

voice numbertranslAC delete

Delete one number translate

SYNTAX:

```
voice numbertranslAC delete level = <number>
```

where:

| | | |
|-------|------------------------------|----------|
| level | The level you want to delete | REQUIRED |
|-------|------------------------------|----------|

voice numbertranslAC flush

Flush all number translate

voice numbertranslAC list

Show all number translate

voice numbtransl config

Configure number translation

SYNTAX:

```
voice numbtransl config      [Globalnumbpostprocess = <{disabled|enabled}>]
                             [pbmatchlastdigits = <number>]
```

where:

| | | |
|-----------------------|--|----------|
| Globalnumbpostprocess | Enables or disables the number postprocessing | OPTIONAL |
| pbmatchlastdigits | Set the number of digits that are taken into account to perform PhoneBook matching | OPTIONAL |

voice numbrtransl list

Show the number translation

voice pb add

Add phonebook entry in the phonebook

SYNTAX:

```
voice pb add                Lastname = <quoted string>
                           Firstname = <quoted string>
                           [Business = <quoted string>]
                           [Home = <quoted string>]
                           [Mobile = <quoted string>]
                           [Other = <quoted string>]
                           [E-mail = <quoted string>]
```

where:

| | | |
|-----------|---------------------|----------|
| Lastname | The lastname | REQUIRED |
| Firstname | The firstname | REQUIRED |
| Business | The business number | OPTIONAL |
| Home | The home number | OPTIONAL |
| Mobile | The mobile number | OPTIONAL |
| Other | Any other number | OPTIONAL |
| E-mail | E-mail address | OPTIONAL |

voice portmap add

Add portmap

SYNTAX:

```
voice portmap add          voiceport = <{FXS1|FXS2}>
                           profile = <{0}>
                           [priority = <number>]
```

where:

| | | |
|-----------|---|----------|
| voiceport | The specific phone | REQUIRED |
| profile | The SIP URI related to this voice port | REQUIRED |
| priority | The priority this profile has for this port | OPTIONAL |

voice portmap delete

Delete portmap

SYNTAX:

```
voice portmap delete          voiceport = <{FXS1|FXS2}>
                               profile = <{0}>
```

where:

| | | |
|-----------|--|----------|
| voiceport | The specific phone | REQUIRED |
| profile | The SIP URI related to this voice port | REQUIRED |

voice portmap flush

Flush all portmap entries

voice portmap list

Show all portmaps

SYNTAX:

```
voice portmap list          voiceport = <{FXS1|FXS2}>
```

where:

| | | |
|-----------|--------------------|----------|
| voiceport | The specific phone | REQUIRED |
|-----------|--------------------|----------|

voice profile add

Add profile

SYNTAX:

```
voice profile add          SIP_URI = <string>
                           [username = <string>]
                           [password = <password>]
                           [displayname = <quoted string>]
                           [voiceport = <{FXS1|FXS2|COMMON}>]
                           [abbr = <string>]
                           [enable = <{disabled|enabled}>]
                           [linename = <string>]
                           [internalnumber = <{no|yes}>]
```

where:

| | | |
|----------------|--|----------|
| SIP_URI | The SIP URI related to this voice port | REQUIRED |
| username | The authentication username related to this voice port | OPTIONAL |
| password | The authentication password related to this voice port | OPTIONAL |
| displayname | An alias name for the SIP_URI | OPTIONAL |
| voiceport | The analogue line number | OPTIONAL |
| abbr | An abbreviated number that will be mapped to the SIP_URI | OPTIONAL |
| enable | Enable or disable this profile | OPTIONAL |
| linename | The line name to identify profile with | OPTIONAL |
| internalnumber | Mark this profile as an internalnumber | OPTIONAL |

voice profile delete

Delete profile

SYNTAX:

```
voice profile delete          SIP_URI = <string>
```

where:

| | | |
|---------|--|----------|
| SIP_URI | The SIP URI related to this voice port | REQUIRED |
|---------|--|----------|

voice profile flush

Flush all profiles

voice profile list

Show all profiles

voice profile modify

Modify profile

SYNTAX:

```
voice profile modify      Index = <{0}>
                        [SIP_URI = <string>]
                        [username = <string>]
                        [password = <password>]
                        [displayname = <quoted string>]
                        [abbr = <string>]
                        [enable = <{disabled|enabled}>]
                        [linename = <string>]
```

where:

| | | |
|-------------|--|----------|
| Index | The index of the profile you wish to modify | REQUIRED |
| SIP_URI | The SIP URI related to this voice port | OPTIONAL |
| username | The authentication username related to this voice port | OPTIONAL |
| password | The authentication password related to this voice port | OPTIONAL |
| displayname | An alias name for the SIP_URI | OPTIONAL |
| abbr | An abbreviated number that will be mapped to the SIP_URI | OPTIONAL |
| enable | Enable or disable this profile | OPTIONAL |
| linename | The line name to identify profile with | OPTIONAL |

voice qos config

Configure the QOS parameters

SYNTAX:

```
voice qos config          type = <{Signaling|Realtime}>
                          qosfield = <{DSCP|precedence}>
                          dscp = <{ef|af11|af12|af13|af21|af22|af23|
                          af31|af32|af33|af41|af42|af43|cs0|cs1|cs2|cs3|
                          cs4|cs5|cs6|cs7} or number>
                          precedence = <{routine|priority|immediate|
                          flash|flash-override|CRITIC-ECP|internetwork-
                          control|network-control} or number>
```

where:

| | | |
|------------|------------------------------------|----------|
| type | The type of traffic that needs qos | REQUIRED |
| qosfield | The QOS field to be used | REQUIRED |
| dscp | The DSCP value | REQUIRED |
| precedence | The precedence value | REQUIRED |

voice qos list

Show the QOS configuration

voice ringing descrtable add

Add a ringing description

SYNTAX:

```
voice ringing descrtable add    ringid = <number>
                                status = <{disabled|enabled}>
                                ringname = <quoted string>
                                [patternentryid = <number>]
                                [dectringentryid = <number>]
                                maxduration = <number>
                                [alertinfo = <quoted string>]
```

where:

| | | |
|-----------------|---|----------|
| ringid | Ring ID | REQUIRED |
| status | Enable or disable this ringing | REQUIRED |
| ringname | Name of the ringing | REQUIRED |
| patternentryid | Entry ID in pattern table | OPTIONAL |
| dectringentryid | DECT ringtone identifier | OPTIONAL |
| maxduration | Max. duration | REQUIRED |
| alertinfo | Exact content of the linked Alert-Info header | OPTIONAL |

voice ringing descrtable delete

Delete a ringing description

SYNTAX:

```
voice ringing descrtable      ringid = <number>
delete
```

where:

| | | |
|--------|---------|----------|
| ringid | Ring ID | REQUIRED |
|--------|---------|----------|

voice ringing descrtable flush

Flush all ringing descriptions

voice ringing descrtable list

Show all ringing descriptions

SYNTAX:

```
voice ringing descrtable list profile = <string>
```

where:

| | | |
|---------|---|----------|
| profile | Profile on which future ringing operations must be done | REQUIRED |
|---------|---|----------|

voice ringing descrtable modify

Modify ring description

SYNTAX:

```
voice ringing descrtable      ringid = <number>
modify                        [status = <{disabled|enabled}>]
                              [ringname = <quoted string>]
                              [patternentryid = <number>]
                              [dectringentryid = <number>]
                              [maxduration = <number>]
                              [alertinfo = <quoted string>]
```

where:

| | | |
|-----------------|---|----------|
| ringid | Ring ID | REQUIRED |
| status | Enable or disable this ringing | OPTIONAL |
| ringname | Name of the ringing | OPTIONAL |
| patternentryid | Entry ID in pattern table | OPTIONAL |
| dectringentryid | DECT ringtone identifier | OPTIONAL |
| maxduration | Max. duration | OPTIONAL |
| alertinfo | Exact content of the linked Alert-Info header | OPTIONAL |

voice ringing descrtable set

Set a specific profile for future ringing modifications (current value = all)

SYNTAX:

```
voice ringing descrtable set    profile = <string>
```

where:

| | | |
|---------|---|----------|
| profile | Profile on which future ringing operations must be done | REQUIRED |
|---------|---|----------|

voice ringing eventtable flush

Flush all ringing events

voice ringing eventtable list

Show all ringing events

SYNTAX:

```
voice ringing eventtable list profile = <string>
```

where:

| | | |
|---------|---|----------|
| profile | Profile on which future ringing operations must be done | REQUIRED |
|---------|---|----------|

voice ringing eventtable modify

Modify a ringing event

SYNTAX:

```
voice ringing eventtable      eventid = <number>
modify                        ringid = <number>
```

where:

| | | |
|---------|----------|----------|
| eventid | Event ID | REQUIRED |
| ringid | Ring ID | REQUIRED |

voice ringing eventtable set

Set a specific profile for future ringing modifications (current value = all)

SYNTAX:

```
voice ringing eventtable set    profile = <string>
```

where:

| | | |
|---------|---|----------|
| profile | Profile on which future ringing operations must be done | REQUIRED |
|---------|---|----------|

voice ringing patterntable add

Add a ringing pattern

SYNTAX:

```
voice ringing patterntable add id = <number>
ringing = <{off|on}>
duration = <number>
[nextentry = <number>]
```

where:

| | | |
|-----------|-----------------------------|----------|
| id | ID of the ring pattern | REQUIRED |
| ringing | Enable or disable this ring | REQUIRED |
| duration | Duration (ms) | REQUIRED |
| nextentry | Next pattern entry | OPTIONAL |

voice ringing patterntable delete

Delete a ringing pattern

SYNTAX:

```
voice ringing patterntable      id = <number>  
delete
```

where:

| | | |
|----|------------------------|----------|
| id | ID of the ring pattern | REQUIRED |
|----|------------------------|----------|

voice ringing patterntable flush

Flush all ringing patterns

voice ringing patterntable list

Show all ringing patterns

SYNTAX:

```
voice ringing patterntable    profile = <string>  
list
```

where:

| | | |
|---------|---|----------|
| profile | Profile on which future ringing operations must be done | REQUIRED |
|---------|---|----------|

voice ringing patterntable modify

Modify a ringing pattern

SYNTAX:

```
voice ringing patterntable      id = <number>
modify                          [ringing = <{off|on}>]
                                [duration = <number>]
                                [nextentry = <number>]
```

where:

| | | |
|-----------|-----------------------------|----------|
| id | ID of the ring pattern | REQUIRED |
| ringing | Enable or disable this ring | OPTIONAL |
| duration | Duration (ms) | OPTIONAL |
| nextentry | Next pattern entry | OPTIONAL |

voice ringing patterntable set

Set a specific profile for future ringing modifications (current value = all)

SYNTAX:

```
voice ringing patterntable set profile = <string>
```

where:

| | | |
|---------|---|----------|
| profile | Profile on which future ringing operations must be done | REQUIRED |
|---------|---|----------|

voice security config

Configure the security parameters

SYNTAX:

```
voice security config          [antispamlevel = <{none|stickyoutbproxy}>]  
                              [mediapolicy = <{none|symmetric}>]
```

where:

| | | |
|---------------|--|----------|
| antispamlevel | Security level to apply on incoming SIP messages | OPTIONAL |
| mediapolicy | Security level to apply on incoming media | OPTIONAL |

voice security list

Show the security configuration

voice services 3gpp config

General 3gpp configuration

SYNTAX:

```
voice services 3gpp config [overlapsignaling = <{disabled|enabled}>]
```

where:

| | | |
|------------------|----------------------------------|----------|
| overlapsignaling | Enable/Disable overlap signaling | OPTIONAL |
|------------------|----------------------------------|----------|

voice services 3gpp list

Show the 3gpp configuration

voice services activate

Activate a supplementary service

SYNTAX:

```
voice services activate          type = <{3pty|acr|bargin|cfbs|cfnr|cfu|clip|
                                clir|forcedFXO|hold|mce|mwi|transfer|vmnr|
                                waiting|warmline}>
```

where:

| type | The supplementary service type | REQUIRED |
|------|--------------------------------|----------|
|------|--------------------------------|----------|

voice services assign

Assign a servicecode to a supplementary service in standard mode

SYNTAX:

```
voice services assign          type = <{3pty|acr|bargin|callreturn|ccbs|
                             cfbs|cfnr|cfu|clip|clir|forcedFXO|hold|
                             internalcall|mce|mwi|transfer|vmnr|waiting|
                             warmline}>
                             servicecode = <string>
```

where:

| | | |
|-------------|--------------------------------|----------|
| type | The supplementary service type | REQUIRED |
| servicecode | The service activation code | REQUIRED |

voice services assign_pxsc

Assign a servicecode to a supplementary service in non_standard mode

SYNTAX:

```
voice services assign_pxsc      type = <{3pty|acr|bargin|callreturn|ccbs|
                                cfbs|cfnr|cfu|clip|clir|waitingoncall|
                                warmline}>
                                action = <{activate|deactivate|interrogate}>
                                action_oncall = <{activate|deactivate}>
                                action_cf = <{activate|deactivate|register|
                                activate_and_register|interrogate}>
                                action_act = <{activate}>
                                [servicecode = <string>]
```

where:

| | | |
|---------------|----------------------------------|----------|
| type | The supplementary service type | REQUIRED |
| action | The supplementary service action | REQUIRED |
| action_oncall | The supplementary service action | REQUIRED |
| action_cf | The supplementary service action | REQUIRED |
| action_act | The supplementary service action | REQUIRED |
| servicecode | The service code | OPTIONAL |

voice services config

General supplementary service configuration

SYNTAX:

```
voice services config      [mwi_phone = <{immediate|deferred|both}>]
                          [mwi_network = <{solicited|unsolicited}>]
                          [prefix_servcode = <{standard|nonstandard}>]
                          [servcode_cmd = <{standard|nonstandard}>]
                          [cfu_dest = <string>]
                          [cfnr_timer = <number{0-600}>]
                          [cfnr_dest = <string>]
                          [cfbs_dest = <string>]
                          [hfhf_feature = <{disabled|enabled}>]
                          [cw_reject_persistence = <{disabled|enabled}>]
                          [cw_timer = <number{0-120}>]
                          [cw_reject_scope = <{specific|common}>]
                          [warm-line-timer = <number{1-60}>]
                          [warm-line-dest = <string>]
                          [aes_from_email_address = <string>]
                          [aes_to_email_address = <string>]
                          [aes_outg_smtp_server = <string>]
                          [vmnr_timer = <number{0-600}>]
                          [voice_mail_size_limit = <number>]
                          [transfer3ptywhenonhook = <{disabled|
                          enabled}>]
```

where:

| | | |
|-----------------------|--|----------|
| mwi_phone | The way the phone reacts on a message waiting indication | OPTIONAL |
| mwi_network | The way the network protocol implements the message waiting indication service | OPTIONAL |
| prefix_servcode | The way the service codes are assigned | OPTIONAL |
| servcode_cmd | The way the service code command is used | OPTIONAL |
| cfu_dest | The destination for the CFU service | OPTIONAL |
| cfnr_timer | The CFNR timer value | OPTIONAL |
| cfnr_dest | The destination for the CFNR service | OPTIONAL |
| cfbs_dest | The destination for the CFBS service | OPTIONAL |
| hfhf_feature | Enable/disable hfhf_feature | OPTIONAL |
| cw_reject_persistence | Enable/disable cw_reject_persistence | OPTIONAL |
| cw_timer | The CW timer value | OPTIONAL |
| cw_reject_scope | The scope of the rejection when the huntgroup is involved | OPTIONAL |

| | | |
|------------------------|---|----------|
| warm-line-timer | The Warm-line timer value | OPTIONAL |
| warm-line-dest | The destination for the Warm-line service | OPTIONAL |
| aes_from_email_address | The from email address for the AES services | OPTIONAL |
| aes_to_email_address | The to email address for the AES services | OPTIONAL |
| aes_outg_smtp_server | The FQDN or IP address of your ISPs outgoing SMTP server | OPTIONAL |
| vmnr_timer | The VMNR timer value | OPTIONAL |
| voice_mail_size_limit | The size limit of VoiceMail | OPTIONAL |
| transfer3ptywhenonhook | Enable/disable transfer when going on hook when involved in 3pty call | OPTIONAL |

voice services deactivate

Deactivate a supplementary service

SYNTAX:

```
voice services deactivate      type = <{3pty|acr|bargin|cfbs|cfnr|cfu|clip|
                               clir|forcedFXO|hold|mce|mwi|transfer|vmnr|
                               waiting|warmline}>
```

where:

| type | The supplementary service type | REQUIRED |
|------|--------------------------------|----------|
|------|--------------------------------|----------|

voice services flush

Flush all supplementary services

voice services list

Show the supplementary service configuration

voice services provision

Provision a supplementary service

SYNTAX:

```
voice services provision          type = <{3pty|acr|bargin|callreturn|ccbs|
                                cfbs|cfnr|cfu|clip|clir|forcedFXO|hold|
                                internalcall|mce|mwi|transfer|vmnr|waiting|
                                warmline}>
```

where:

| type | The supplementary service type | REQUIRED |
|------|--------------------------------|----------|
|------|--------------------------------|----------|

voice services servicelist

Show the supplementary service configuration

voice services soc config

General switching order configuration

SYNTAX:

```
voice services soc config      [Registerrecalltimer = <number{0-60}>]  
                               [Digitcollectiontimer = <number{0-60}>]
```

where:

| | | |
|----------------------|---|----------|
| Registerrecalltimer | The Register recall timer value in seconds | OPTIONAL |
| Digitcollectiontimer | The Digit Collection timer value in seconds | OPTIONAL |

voice services soc list

Show the switching order configuration

voice services soc modify

Configure switching order codes

SYNTAX:

```
voice services soc modify      function = <{HoldActiveCallAndEnableCallSetup |
                               NoActiveCallRetrieveHeld |
                               SwitchBetweenActiveAndHeld |
                               SwitchBetweenActiveAndWaiting}>
                               SOC = <{HF | HF1 | HF2 | HFTO | HFTOorHF2 | HF3}>
```

where:

| | | |
|----------|----------------------|----------|
| function | Switching function | REQUIRED |
| SOC | Switching order code | REQUIRED |

voice services soc soclist

Show the switching order codes

voice services withdraw

Withdraw a supplementary service

SYNTAX:

```
voice services withdraw          type = <{3pty|acr|bargin|callreturn|ccbs|
                                cfbs|cfnr|cfu|clip|clir|forcedFXO|hold|
                                internalcall|mce|mwi|transfer|vmnr|waiting|
                                warmline}>
```

where:

| type | The supplementary service type | REQUIRED |
|------|--------------------------------|----------|
|------|--------------------------------|----------|

voice sip config

Configure the SIP general parameters

SYNTAX:

```
voice sip config      [useragentdomain = <string>]
                    [primproxyaddr = <string>]
                    [secproxyaddr = <string>]
                    [proxyport = <{undefined|at-echo|at-nbp|at-
rtmp|at-zis|auth|bgp|biff|bootpc|exec|finger|
ftp|ftp-data|gopher|h323|httpproxy|ike|ils|
imap2|imap3|ingres-net|ipcserver|ipx|irc-o|
irc-u|kerberos|ldap|login|netbios-dgm|netbios-
ns|netbios-ssn|netwall|netware-ip|new-rwho|
nfd|nicname|nntp|ntalk|ntp|pcmail-srv|pop2|
pop3|printer|qotd|realaudio|rip|rtelnet|rtsp|
sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
                    [secproxyport = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipcserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfd|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
                    [primregaddr = <string>]
                    [secregaddr = <string>]
                    [regport = <{undefined|at-echo|at-nbp|at-rtmp|
at-zis|auth|bgp|biff|bootpc|exec|finger|ftp|
ftp-data|gopher|h323|httpproxy|ike|ils|imap2|
imap3|ingres-net|ipcserver|ipx|irc-o|irc-u|
kerberos|ldap|login|netbios-dgm|netbios-ns|
netbios-ssn|netwall|netware-ip|new-rwho|nfd|
nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net|
sqlserv|sunrpc|syslog|sysstat|talk|telnet|time|
timed|tftp|ulistserv|utime|uucp|uucp-rlogin|
who|www-http|whoami|xwindows} or number>]
                    [regexpire = <number{60-86400}>]
                    [regexpire_Tbefore = <number{1-86400}>]
                    [notifier_addr = <string>]
```

```

[notifier_port = <{undefined|at-echo|at-nbp|
at-rtmp|at-zis|auth|bgp|biff|doom|echo|exec|
finger|ftp|ftp-data|gopher|h323|httpproxy|
ike|ils|imap2|imap3|ingres-net|ipserver|ipx|
irc-o|irc-u|kerberos|ldap|login|netbios-dgm|
netbios-ns|netbios-ssn|netwall|netware-ip|new-
rwho|nfs|nicname|nntp|ntalk|ntp|pcmail-srv|
pop2|pop3|printer|qotd|realaudio|rip|rtelnet|
rtsp|sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|
sql-net|sqlserv|sunrpc|syslog|sysstat|talk|
telnet|time|timed|tftp|ulistserv|utime|uucp|
uucp-rlogin|who|www-http|whoami|xwindows} or
number>]
[subscribe_expire = <number{60-86400}>]
[failbehaviour = <{stop|continue}>]
[CWreply = <{182|180}>]
[transport = <{undefined|UDP|TCP|TLS}>]
[rtpmapstaticPT = <{disabled|enabled}>]
[reinvite_stop_audio = <{disabled|enabled}>]
[MethodUpdate = <{disabled|enabled}>]
[PRACK = <{disabled|enabled|unsupported|
supported|required|when_supported}>]
[clirformat = <{standard|nonstandard}>]
[DTMF*#inINFO = <{*#|1011}>]
[clip_consider_displayname = <{no|yes}>]
[sdp_ptime = <{10|20|30|notsent}>]
[replace# = <{enabled|disabled}>]
[symmetriccodec = <{enabled|disabled}>]
[reinvite_at_cgfax_detect = <{enabled|
disabled}>]
[SIPURI_port = <{enabled|disabled}>]
[rport = <{enabled|disabled}>]
[SDP_username = <string>]
[t38portincrement = <number{0-65535}>]
[ping = <number{0-86400}>]
[min-se = <0 or a number{90-604800}>]
[session-expires = <0 or a number{90-604800}>]
[expires = <number{0-3600}>]
[register-backoff-timer = <number{0-86400}>]
[mwi-resubscribe-delay = <number{0-86400}>]
[stickyoutbproxy = <{disabled|enabled}>]
[privacy = <{ignore|strict|loose}>]
[SDP_username_per_UA = <{disabled|enabled}>]
[stop_register_on_403 = <{disabled|enabled}>]
[403waiting = <number{0-86400}>]
[distinct_t38_port = <{disabled|enabled}>]
[transport_in_contact = <{disabled|enabled}>]
[401407waiting = <number{0-86400}>]
[400503waiting = <number{0-86400}>]
[other4xx5xx6xxwaiting = <number{0-86400}>]
[timer_f_expired_waiting = <number{0-86400}>]
[stop_register_on_408 = <{disabled|enabled}>]
[stop_register_on_timerfexpired = <{disabled|
enabled}>]
[provisional_timer = <number{0-3600}>]

```



```

[timert1 = <number{1-1048575}>]
[timert2 = <number{1-1048575}>]
[timertb = <number{1-1048575}>]
[timertf = <number{1-1048575}>]
[response420 = <{disabled|enabled}>]
[realm = <quoted string>]
[realmcheck = <{disabled|enabled}>]
[regpersistency = <{disabled|permanent}>]
[no-answer-reply = <{480|486}>]
[CWrejectreply = <{480|486}>]
[SIPURIsupport = <{legacy|TR104}>]
[XSerialnumAction = <{disabled|enabled}>]
[redirecton3xx = <{disabled|enabled}>]

```

where:

| | | |
|---------------------|--|----------|
| useragentdomain | User Agent domain | OPTIONAL |
| primproxyaddr | Primary outbound proxy address or FQDN | OPTIONAL |
| secproxyaddr | Secondary outbound proxy address or FQDN | OPTIONAL |
| proxyport | Primary outbound proxy port | OPTIONAL |
| secproxyport | Secondary outbound proxy port | OPTIONAL |
| primregaddr | Primary registrar address or domain | OPTIONAL |
| secregaddr | Secondary registrar address or domain | OPTIONAL |
| regport | Registrar port | OPTIONAL |
| regexpire | The registration expire time | OPTIONAL |
| regexpire_Tbefore | Time to send new registration request before registration expires | OPTIONAL |
| notifier_addr | Notifier address or FQDN used for MWI | OPTIONAL |
| notifier_port | Notifier port used for MWI | OPTIONAL |
| subscribe_expire | The subscription expire time | OPTIONAL |
| failbehaviour | Behaviour on failed INVITE: re-register (stop) or use DNS logic (continue) | OPTIONAL |
| CWreply | The reply to be sent for a waiting call (180/182) | OPTIONAL |
| transport | The transport type | OPTIONAL |
| rtpmapstaticPT | Enable or disable adding RTP map i.c.o. static PT | OPTIONAL |
| reinvite_stop_audio | Explicitly stop audio stream in the SDP when sending a re-invite | OPTIONAL |
| MethodUpdate | Enable or disable Update Method | OPTIONAL |

| | | |
|---------------------------|--|----------|
| PRACK | No support , support or required provisional responses | OPTIONAL |
| clirformat | The clir format | OPTIONAL |
| DTMF*#inINFO | Format used for */# in INFO method | OPTIONAL |
| clip_consider_displayname | Consider the displayname for CLIP or not | OPTIONAL |
| sdp_ptime | The packet time used in the SDP message | OPTIONAL |
| replace# | Enable or disable the # in INVITE to be replaced by %23 | OPTIONAL |
| symmetriccodec | Enable or disable symmetric codecs | OPTIONAL |
| reinvite_at_cgfax_detect | Send re_invite when calling fax is detected | OPTIONAL |
| SIPURI_port | Enable or disable the SIPURI port | OPTIONAL |
| rport | Enable or disable the parameter rport | OPTIONAL |
| SDP_username | SDP user name | OPTIONAL |
| t38portincrement | Offset of T38 port number vs RTP port number. | OPTIONAL |
| ping | Time between two keepalive ping requests. | OPTIONAL |
| min-se | The minimum session expires timer. | OPTIONAL |
| session-expires | The session expires timer. | OPTIONAL |
| expires | The INVITE expires timer. | OPTIONAL |
| register-backoff-timer | Fixed backoff timer in registration procedure | OPTIONAL |
| mwi-resubscribe-delay | Delay between 2 un-answered MWI subscribe requests | OPTIONAL |
| stickyoutbproxy | Outband proxy lock over transactions | OPTIONAL |
| privacy | The privacy type can be ignore, strict or loose. | OPTIONAL |
| SDP_username_per_UA | SDP user name per ua | OPTIONAL |
| stop_register_on_403 | Stop register on 403 | OPTIONAL |
| 403waiting | Time in sec. before retrying after a 403 response | OPTIONAL |
| distinct_t38_port | Used distinct port for T38 | OPTIONAL |
| transport_in_contact | Transporttype in contact header | OPTIONAL |
| 401407waiting | Time in sec. before a new registration (if 0, stops) | OPTIONAL |
| 400503waiting | Time in sec. before a new registration attempt (0 = no wait) | OPTIONAL |
| other4xx5xx6xxwaiting | Time in sec. before retrying after a 4xx/5xx/6xx resp. | OPTIONAL |
| timer_f_expired_waiting | Time in sec. before retrying after timer f expired | OPTIONAL |
| stop_register_on_408 | Stop register on 408 | OPTIONAL |

| | | |
|-------------------------------|--|----------|
| stop_register_on_timerexpired | Stop register on Timer F expired | OPTIONAL |
| provisional_timer | Set provisional timer | OPTIONAL |
| timert1 | The T1 expires timer. | OPTIONAL |
| timert2 | The T2 expires timer. | OPTIONAL |
| timertb | The Timer B expires timer. | OPTIONAL |
| timertf | The Timer F expires timer. | OPTIONAL |
| response420 | Enable or disable sip 420 bad extension response when receiving bad extensions | OPTIONAL |
| realm | Realm to be used in outbound and inbound authentication | OPTIONAL |
| realmcheck | Should realm be checked on authentication | OPTIONAL |
| regpersistency | number of times UA registration stays with the last known good proxy address. <disabled permanent> or <value>. | OPTIONAL |
| no-answer-reply | No answer reply | OPTIONAL |
| CWrejectreply | CW reject reply | OPTIONAL |
| SIPURIsupport | SIPURI support legacy or TR104 | OPTIONAL |
| XSerialnumAction | Enable or disable X_Serialnum header | OPTIONAL |
| redirecton3xx | redirect to new server when receiving 3xx except 305 | OPTIONAL |

voice sip inboundauth config

Configure which methods should be authenticated

SYNTAX:

```
voice sip inboundauth config [noncelifetime = <number{1-86400}>]
                              [BYE = <{disabled|enabled}>]
                              [INFO = <{disabled|enabled}>]
                              [INVITE = <{disabled|enabled}>]
                              [NOTIFY = <{disabled|enabled}>]
                              [OPTIONS = <{disabled|enabled}>]
                              [PING = <{disabled|enabled}>]
                              [PRACK = <{disabled|enabled}>]
                              [REFER = <{disabled|enabled}>]
                              [SUBSCRIBE = <{disabled|enabled}>]
                              [UPDATE = <{disabled|enabled}>]
```

where:

| | | |
|---------------|-----------------------------|----------|
| noncelifetime | maximum lifetime of a nonce | OPTIONAL |
| BYE | | OPTIONAL |
| INFO | | OPTIONAL |
| INVITE | | OPTIONAL |
| NOTIFY | | OPTIONAL |
| OPTIONS | | OPTIONAL |
| PING | | OPTIONAL |
| PRACK | | OPTIONAL |
| REFER | | OPTIONAL |
| SUBSCRIBE | | OPTIONAL |
| UPDATE | | OPTIONAL |

voice sip inboundauth list

List the methods

voice sip list

Display the SIP general parameters

voice sip responsemap add

Add a SIP response

SYNTAX:

```
voice sip responsemap add      responsecode = <string>
                               tone = <{dial|none|remotecallhold|callhold|
                               remotecallwaiting|callwaiting|specialdial|
                               stutterdial|bargain}>
                               [textmessage = <quoted string>]
```

where:

| | | |
|--------------|-------------------------|----------|
| responsecode | SIP Response Code | REQUIRED |
| tone | Tone to be played | REQUIRED |
| textmessage | Text message to display | OPTIONAL |

voice sip responsemap delete

Delete a SIP response

SYNTAX:

```
voice sip responsemap delete responsecode = <{1xx|180|181|182|183|2xx|3xx|4xx|486|5xx|6xx}>
```

where:

| responsecode | SIP Response Code | REQUIRED |
|--------------|-------------------|----------|
|--------------|-------------------|----------|

voice sip responsemap flush

Flush all SIP responses

voice sip response map list

Show all SIP responses

voice sip responsemap modify

Modify a SIP response

SYNTAX:

```
voice sip responsemap modify    responsecode = <{1xx|180|181|182|183|2xx|3xx|
                                4xx|486|5xx|6xx}>
                                [tone = <{dial|none|remotecallhold|callhold|
                                remotecallwaiting|callwaiting|specialdial|
                                stutterdial|bargain}>]
                                [textmessage = <quoted string>]
```

where:

| | | |
|--------------|-------------------------|----------|
| responsecode | SIP Response Code | REQUIRED |
| tone | Tone to be played | OPTIONAL |
| textmessage | Text message to display | OPTIONAL |

voice sip sdp annexa config

Configure the SDP AnnexA parameters

SYNTAX:

```
voice sip sdp annexa config      [scopeadd = <{g723-1}>]  
                                  [scopedel  = <{g723-1}>]
```

where:

| | | |
|----------|----------------|----------|
| scopeadd | Scope add list | OPTIONAL |
| scopedel | Scope del list | OPTIONAL |

voice sip sdp annexb config

Configure the SDP annexb parameters

SYNTAX:

```
voice sip sdp annexb config      [scopeadd = <{g729}>]  
                                  [scopedel  = <{g729}>]
```

where:

| | | |
|----------|----------------|----------|
| scopeadd | Scope add list | OPTIONAL |
| scopedel | Scope del list | OPTIONAL |

voice sip sdp config

Configure the SDP general parameters

SYNTAX:

```
voice sip sdp config      [remotesupportsilencesupp = <{on-specified|
                          off-not-specified}>]
                          [callholddirection = <{sendonly|inactive}>]
                          [versioncheck = <{no|yes}>]
                          [includedefaultsendrecv = <{no|yes}>]
                          [enable_ANNEXE_g726_32 = <{no|yes}>]
```

where:

| | | |
|--------------------------|--|----------|
| remotesupportsilencesupp | Remote support SilenceSupp | OPTIONAL |
| callholddirection | Call Hold Direction | OPTIONAL |
| versioncheck | Check version in SDP header | OPTIONAL |
| includedefaultsendrecv | Include default sendrecv in SDP | OPTIONAL |
| enable_ANNEXE_g726_32 | Enable or Disable AnnexE for Codec G726_32 | OPTIONAL |

voice sip sdp list

List the SDP general parameters

voice sip sdp silencesupp config

Configure the SDP Silence Supp parameters

SYNTAX:

```
voice sip sdp silencesupp      [scopeadd = <{g711|g726|g723-1|g729}>]
config                        [scopedel  = <{g711|g726|g723-1|g729}>]
                               [priority  = <{off|on}>]
```

where:

| | | |
|----------|----------------------|----------|
| scopeadd | Scope add list | OPTIONAL |
| scopedel | Scope del list | OPTIONAL |
| priority | silenceSupp priority | OPTIONAL |

voice sip sdp vad config

Configure the SDP Vad parameters

SYNTAX:

```
voice sip sdp vad config      [scopeadd = <{g711|g726}>]  
                             [scopedel  = <{g711|g726}>]
```

where:

| | | |
|----------|----------------|----------|
| scopeadd | Scope add list | OPTIONAL |
| scopedel | Scope del list | OPTIONAL |

voice state

show VOIP service states

voice stats list

Show voice statistics

SYNTAX:

```
voice stats list          voiceport = <{FXS1|FXS2|all}>
                          type = <{detailed|generic|all}>
```

where:

| | | |
|-----------|---|----------|
| voiceport | The voice port used to get/reset the statistics | REQUIRED |
| type | Type of statistics to be listed/reset | REQUIRED |

voice stats reset

Reset voice statistics

SYNTAX:

```
voice stats reset          voiceport = <{FXS1|FXS2|all}>
                           type = <{detailed|generic|all}>
```

where:

| | | |
|-----------|---|----------|
| voiceport | The voice port used to get/reset the statistics | REQUIRED |
| type | Type of statistics to be listed/reset | REQUIRED |

voice tone descrtable add

Add tone description

SYNTAX:

```
voice tone descrtable add      tone = <string>
                               status = <{disabled|enabled}>
                               delay = <number>
                               [patternentryid = <number>]
                               [file = <string>]
                               [filerepeat = <number>]
                               text = <quoted string>
                               [maxduration = <number>]
                               [nexttone = <string>]
                               repeatafter = <number>
```

where:

| | | |
|----------------|--|----------|
| tone | Name of the tone | REQUIRED |
| status | Enable or disable this tone | REQUIRED |
| delay | Delay (in ms) | REQUIRED |
| patternentryid | Entry ID in pattern table | OPTIONAL |
| file | Audio file name | OPTIONAL |
| filerepeat | File repetitions | OPTIONAL |
| text | Text to display on the phone | REQUIRED |
| maxduration | Max. duration | OPTIONAL |
| nexttone | Name of the tone | OPTIONAL |
| repeatafter | Time after which the tone must be repeated (in ms) | REQUIRED |

voice tone descrtable delete

Delete tone description

SYNTAX:

```
voice tone descrtable delete    tone = <{bargain}>
```

where:

| | | |
|------|------------------|----------|
| tone | Name of the tone | REQUIRED |
|------|------------------|----------|

voice tone descrtable flush

Flush all tone descriptions

voice tone descrtable list

Show all tone descriptions

voice tone descrtable modify

Modify tone description

SYNTAX:

```
voice tone descrtable modify    tone = <{dial|none|remotecallhold|callhold|
                                remotecallwaiting|callwaiting|specialdial|
                                stutterdial|bargain}>
                                [status = <{disabled|enabled}>]
                                [delay = <number>]
                                [patternentryid = <number>]
                                [file = <string>]
                                [filerepeat = <number>]
                                [text = <string>]
                                [maxduration = <number>]
                                [nexttone = <string>]
                                [repeatafter = <number>]
```

where:

| | | |
|----------------|--|----------|
| tone | Name of the tone | REQUIRED |
| status | Enable or disable this tone | OPTIONAL |
| delay | Delay (in ms) | OPTIONAL |
| patternentryid | Entry ID in pattern table | OPTIONAL |
| file | Audio file name | OPTIONAL |
| filerepeat | File repetitions | OPTIONAL |
| text | Text to display on the phone | OPTIONAL |
| maxduration | Max. duration | OPTIONAL |
| nexttone | Name of the tone | OPTIONAL |
| repeatafter | Time after which the tone must be repeated (in ms) | OPTIONAL |

voice tone eventtable flush

Flush all tone events

voice tone eventtable list

Show all tone events

voice tone eventtable modify

Modify tone event

SYNTAX:

```
voice tone eventtable modify    eventid = <{1|2|3|4|5|6|7|8|9|10|11|12|13|14|
                                15|16|17|18|19|20|101|102|103|404|405|406|407|
                                408|409|410|501|502|503|999}>
                                tone = <{dial|none|remotecallhold|callhold|
                                remotecallwaiting|callwaiting|specialdial|
                                stutterdial|bargin}>
```

where:

| | | |
|---------|-----------------------------|----------|
| eventid | Event ID | REQUIRED |
| tone | Tone to play for this event | REQUIRED |

voice tone patterntable add

Add tone pattern

SYNTAX:

```
voice tone patterntable add      id = <number>
                                tone = <{off|on}>
                                [freq1 = <number>]
                                [power1 = <number>]
                                [freq2 = <number>]
                                [power2 = <number>]
                                [freq3 = <number>]
                                [power3 = <number>]
                                [freq4 = <number>]
                                [power4 = <number>]
                                [duration = <number>]
                                [nextentry = <number>]
                                [maxloops = <number>]
                                [nextentryafterloops = <number>]
```

where:

| | | |
|---------------------|-----------------------------|----------|
| id | ID of the tone pattern | REQUIRED |
| tone | Enable or disable this tone | REQUIRED |
| freq1 | Frequency 1 | OPTIONAL |
| power1 | Power 1 | OPTIONAL |
| freq2 | Frequency 2 | OPTIONAL |
| power2 | Power 2 | OPTIONAL |
| freq3 | Frequency 3 | OPTIONAL |
| power3 | Power 3 | OPTIONAL |
| freq4 | Frequency 4 | OPTIONAL |
| power4 | Power 4 | OPTIONAL |
| duration | Duration (ms) | OPTIONAL |
| nextentry | Next pattern entry | OPTIONAL |
| maxloops | Max loops | OPTIONAL |
| nextentryafterloops | Next entry after loops | OPTIONAL |

voice tone patterntable delete

Delete tone pattern

SYNTAX:

```
voice tone patterntable delete id = <{1|2|11|12|13|21|22|31|41|42|51|61|62|
63|71|72|81|82|83|84|91|92|101|102|103|104|
111|112|121|131|132|141|142|151|161}>
[endentryid = <{1|2|11|12|13|21|22|31|41|42|
51|61|62|63|71|72|81|82|83|84|91|92|101|102|
103|104|111|112|121|131|132|141|142|151|161}>]
```

where:

| | | |
|------------|------------------------|----------|
| id | ID of the tone pattern | REQUIRED |
| endentryid | ID of the tone pattern | OPTIONAL |

voice tone patterntable flush

Flush all tone patterns

voice tone patterntable list

Show all tone patterns

voice tone patterntable modify

Modify tone pattern

SYNTAX:

```
voice tone patterntable modify id = <{1|2|11|12|13|21|22|31|41|42|51|61|62|
63|71|72|81|82|83|84|91|92|101|102|103|104|
111|112|121|131|132|141|142|151|161}>
[tone = <{off|on}>]
[freq1 = <number>]
[power1 = <number>]
[freq2 = <number>]
[power2 = <number>]
[freq3 = <number>]
[power3 = <number>]
[freq4 = <number>]
[power4 = <number>]
[duration = <number>]
[nextentry = <number>]
[maxloops = <number>]
[nextentryafterloops = <number>]
```

where:

| | | |
|---------------------|-----------------------------|----------|
| id | ID of the tone pattern | REQUIRED |
| tone | Enable or disable this tone | OPTIONAL |
| freq1 | Frequency 1 | OPTIONAL |
| power1 | Power 1 | OPTIONAL |
| freq2 | Frequency 2 | OPTIONAL |
| power2 | Power 2 | OPTIONAL |
| freq3 | Frequency 3 | OPTIONAL |
| power3 | Power 3 | OPTIONAL |
| freq4 | Frequency 4 | OPTIONAL |
| power4 | Power 4 | OPTIONAL |
| duration | Duration (ms) | OPTIONAL |
| nextentry | Next pattern entry | OPTIONAL |
| maxloops | Max loops | OPTIONAL |
| nextentryafterloops | Next entry after loops | OPTIONAL |

voice uamap add

Add uamap

SYNTAX:

```
voice uamap add                profile = <{0}>  
                               voiceport = <{FXS1|FXS2}>
```

where:

| | | |
|-----------|--|----------|
| profile | The SIP URI related to this voice port | REQUIRED |
| voiceport | The specific phone | REQUIRED |

voice uamap delete

Delete uamap

SYNTAX:

```
voice uamap delete          profile = <{0}>
                             voiceport = <{FXS1|FXS2}>
```

where:

| | | |
|-----------|--|----------|
| profile | The SIP URI related to this voice port | REQUIRED |
| voiceport | The specific phone | REQUIRED |

voice uamap flush

Flush all uamap entries

voice uamap list

Show all uamaps

SYNTAX:

```
voice uamap list [profile = <{0}>]
```

where:

| | | |
|---------|------------------|----------|
| profile | User Agent index | OPTIONAL |
|---------|------------------|----------|

wansensing Commands

| | | |
|-------------------------------------|--------------------------------------|---------------|
| <i>wansensing config</i> | <i>Configure parameters</i> | see page 1264 |
| <i>wansensing debug traceconfig</i> | <i>Tracing settings</i> | see page 1265 |
| <i>wansensing flush</i> | <i>Clean configuration</i> | see page 1266 |
| <i>wansensing list</i> | <i>Display parameters</i> | see page 1267 |
| <i>wansensing mode add</i> | <i>Add mode</i> | see page 1268 |
| <i>wansensing mode delete</i> | <i>Delete mode</i> | see page 1269 |
| <i>wansensing mode list</i> | <i>List all modes</i> | see page 1270 |
| <i>wansensing requestmode</i> | <i>Request to enter certain mode</i> | see page 1271 |

wansensing config

Configure parameters

SYNTAX:

```
wansensing config [state = <{disabled|enabled}>]
                  [errorinterval = <number>]
                  [errorsript = <string>]
```

where:

| | | |
|---------------|----------------------|----------|
| state | Enable/disable | OPTIONAL |
| errorinterval | Error interval value | OPTIONAL |
| errorsript | Error script name | OPTIONAL |

wansensing debug traceconfig

Tracing settings

SYNTAX:

```
wansensing debug traceconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|----------------|----------|
| state | Enable/disable | OPTIONAL |
|-------|----------------|----------|

wansensing flush

Clean configuration

wansensing list

Display parameters

wansensing mode add

Add mode

SYNTAX:

```
wansensing mode add          name = <string>
                             maininterval = <number>
                             scriptname = <string>
                             [redirectgui = <{disabled|enabled}>]
```

where:

| | | |
|--------------|---------------------|----------|
| name | Mode name | REQUIRED |
| maininterval | Main interval value | REQUIRED |
| scriptname | Script name | REQUIRED |
| redirectgui | Redirect GUI | OPTIONAL |

wansensing mode delete

Delete mode

SYNTAX:

```
wansensing mode delete          name = <string>
```

where:

| name | Mode name | REQUIRED |
|------|-----------|----------|
|------|-----------|----------|

wansensing mode list

List all modes

wansensing requestmode

Request to enter certain mode

SYNTAX:

```
wansensing requestmode mode = <string>
```

where:

| | | |
|------|--------------------------|----------|
| mode | Mode to enter (its name) | REQUIRED |
|------|--------------------------|----------|

webservice Commands

| | | |
|---|--------------------------|---------------|
| <i>webservice ssl commonname add</i> | <i>Add an CommonName</i> | see page 1274 |
| <i>webservice ssl commonname delete</i> | <i>Delete an option.</i> | see page 1275 |
| <i>webservice ssl commonname list</i> | <i>List all options.</i> | see page 1276 |

webserver ssl commonname add

Add an CommonName

SYNTAX:

```
webserver ssl commonname add commonname = <string>
```

where:

| | | |
|------------|------------|----------|
| commonname | CommonName | REQUIRED |
|------------|------------|----------|

webserver ssl commonname delete

Delete an option.

SYNTAX:

```
webserver ssl commonname      id = <string>
delete
```

where:

| | | |
|----|----|----------|
| id | id | REQUIRED |
|----|----|----------|

webserver ssl commonname list

List all options.

wireless Commands

| | | |
|---------------------------------------|---|---------------|
| <i>wireless acs config</i> | <i>ACS configuration parameters</i> | see page 1279 |
| <i>wireless acs debug acsprofile</i> | <i>Configuration of ACS profiles</i> | see page 1281 |
| <i>wireless acs debug config</i> | <i>Configuration of Advanced ACS parameters and traces</i> | see page 1282 |
| <i>wireless acs debug dumpacsmeas</i> | <i>ACS detailed scan summaries of the last performed scan</i> | see page 1283 |
| <i>wireless acs rescans</i> | <i>Performs Automatic Channel Selection</i> | see page 1284 |
| <i>wireless acs scanhistory</i> | <i>Shows ACS scanhistory</i> | see page 1285 |
| <i>wireless acs scanreport</i> | <i>Shows report for last performed scan</i> | see page 1286 |
| <i>wireless debug stats</i> | <i>Transfer statistics</i> | see page 1287 |
| <i>wireless debug traceconfig</i> | <i>Tracing configuration, configurable per module.</i> | see page 1288 |
| <i>wireless debug txtest</i> | <i>Transmit test</i> | see page 1289 |
| <i>wireless macacl add</i> | <i>Add an ACL MAC entry</i> | see page 1290 |
| <i>wireless macacl config</i> | <i>Access Control List configuration</i> | see page 1291 |
| <i>wireless macacl delete</i> | <i>Delete an ACL MAC entry</i> | see page 1292 |
| <i>wireless macacl flush</i> | <i>Flushes ACL entries</i> | see page 1293 |
| <i>wireless macacl list</i> | <i>Shows a list of all configured ACL entries</i> | see page 1294 |
| <i>wireless macacl modify</i> | <i>Modify an ACL entry</i> | see page 1295 |
| <i>wireless macacl register</i> | <i>Start a registration process (only for register mode)</i> | see page 1296 |
| <i>wireless mssid ifadd</i> | <i>Add an extra ssid context</i> | see page 1297 |
| <i>wireless mssid ifattach</i> | <i>Attach a ssid context</i> | see page 1298 |
| <i>wireless mssid ifconfig</i> | <i>Configure a ssid context</i> | see page 1299 |
| <i>wireless mssid ifdelete</i> | <i>Delete a ssid context</i> | see page 1301 |
| <i>wireless mssid ifdetach</i> | <i>Detach a ssid context</i> | see page 1302 |
| <i>wireless mssid iflist</i> | <i>Multiple ssid configuration</i> | see page 1303 |
| <i>wireless qos apacconfig</i> | <i>configure AP EDCA parameters</i> | see page 1304 |
| <i>wireless qos config</i> | <i>configure QoS settings</i> | see page 1305 |
| <i>wireless qos staacconfig</i> | <i>configure STA EDCA parameters</i> | see page 1306 |

| | | |
|---|--|---------------|
| <i>wireless radio</i> | <i>Configures radio settings.</i> | see page 1307 |
| <i>wireless radius config</i> | <i>RADIUS configuration</i> | see page 1308 |
| <i>wireless radius server config</i> | <i>RADIUS server configuration</i> | see page 1309 |
| <i>wireless reset</i> | <i>Reset Wireless interface settings to defaults</i> | see page 1310 |
| <i>wireless stations history config</i> | <i>Configure station history</i> | see page 1311 |
| <i>wireless stations history list</i> | <i>List the station history</i> | see page 1312 |
| <i>wireless stations history reset</i> | <i>Reset history</i> | see page 1313 |
| <i>wireless stations history save</i> | <i>Save history</i> | see page 1314 |
| <i>wireless stations list</i> | <i>List of the currently associated stations</i> | see page 1315 |
| <i>wireless wps config</i> | <i>Configure/Show the WPS settings</i> | see page 1316 |
| <i>wireless wps pin</i> | <i>Enroll a WSC Station by entering its device password or PIN</i> | see page 1317 |

wireless acs config

ACS configuration parameters

SYNTAX:

```
wireless acs config [state = <{Disabled|Monitoring|Selecting}>]
                    [mode = <{Legacy|Interference|
                    Interference&Busy|Optimized|Custom1|Custom2}>]
                    - Legacy = <{Legacy|Interference|
                    Interference&Busy|Optimized|Custom1|Custom2}>
                    - Intf = <{Legacy|Interference|
                    Interference&Busy|Optimized|Custom1|Custom2}>
                    - Intf&Busy = <{Legacy|Interference|
                    Interference&Busy|Optimized|Custom1|Custom2}>
                    - Optimized = <{Legacy|Interference|
                    Interference&Busy|Optimized|Custom1|Custom2}>
                    - Custo1 = <{Legacy|Interference|
                    Interference&Busy|Optimized|Custom1|Custom2}>
                    - Custo2 = <{Legacy|Interference|
                    Interference&Busy|Optimized|Custom1|Custom2}>
                    0 = <{Legacy|Interference|Interference&Busy|
                    Optimized|Custom1|Custom2}>
                    [rescandelay = <number{10-3600}>]
                    [rescandelaypolicy = <{Always|NoStation|
                    NoTraffic}>]
                    - Always = <{Always|NoStation|NoTraffic}>
                    - NoStation = <{Always|NoStation|NoTraffic}>
                    - NoTraffic = <{Always|NoStation|NoTraffic}>
                    [rescandelaymaxevents = <number{1-999}>]
                    [chmonitorperiod = <number{1-10}>]
                    [chfailtriggervalid = <number{1-10}>]
                    [chfailmaxevents = <number{1-10}>]
                    [chfaillockoutperiod = <number{1-86400}>]
                    [radio_id = <number{0-9999}>]
```

where:

| | | |
|-------------|--|----------|
| state | Operational state of the Automatic Channel Selection | OPTIONAL |
| mode | The operational mode of the Automatic Channel Selection: | OPTIONAL |
| - Legacy | Consider only AP counts per channel | REQUIRED |
| - Intf | statistics per channel | REQUIRED |
| - Intf&Busy | occupancy statistics per channel | REQUIRED |
| - Optimized | occupancy and background noise per channel | REQUIRED |
| - Custo1 | operational mode 1 | REQUIRED |
| - Custo2 | [rescanperiod = <number{0-604800}>] Periodic rescan period [s], must be at least 60s | REQUIRED |

| | | |
|----------------------|--|----------|
| 0 | time | REQUIRED |
| rescandelay | Delay period [s] before a re-evaluation is done of the rescan policy | OPTIONAL |
| rescandelaypolicy | Defines when the periodic scan is executed: | OPTIONAL |
| - Always | execute the rescan immediately | REQUIRED |
| - NoStation | associated, execute the rescan, if not delay it | REQUIRED |
| - NoTraffic | unicast RX/TX traffic is detected, execute the rescan, if not delay it | REQUIRED |
| rescandelaymaxevents | The maximum amount of rescan delay events that is allowed, if the counter is exceeded the rescan is executed | OPTIONAL |
| chmonitorperiod | The period [s] during which channel statistics are monitored | OPTIONAL |
| chfailtriggervalid | The amount of consecutive channel failure triggers required to launch a valid bad channel event | OPTIONAL |
| chfailmaxevents | The maximum amount of bad channel events within a lockout period | OPTIONAL |
| chfaillockoutperiod | The period [s] which is activated directly after a valid channel change, preventing a flood of channel change events | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless acs debug acsprofile

Configuration of ACS profiles

SYNTAX:

```
wireless acs debug acsprofile [radio_id = <number{0-9999}>]
                               [value = <quoted string>]
                               [profile_id = <number>]
```

where:

| | | |
|------------|--|----------|
| radio_id | radio | OPTIONAL |
| value | Space separated list of the profile parameters | OPTIONAL |
| profile_id | Index of profile to edit | OPTIONAL |

wireless acs debug config

Configuration of Advanced ACS parameters and traces

SYNTAX:

```
wireless acs debug config      [radio_id = <number{0-9999}>]
                               [txtraffichreshold = <number{1-9999}>]
                               [rxtraffichreshold = <number{1-9999}>]
                               [trafficsenseperiod = <number{5-60}>]
                               [chanimtracing = <{disabled|enabled}>]
                               [trafficttracing = <{disabled|enabled}>]
                               [tracelevel = <number{0-3}>]
                               [interferencespan = <number{0-4}>]
                               [chnoisethreshold = <number{0-100}>]
                               [chscorethreshold = <number{0-100}>]
```

where:

| | | |
|--------------------|---|----------|
| radio_id | radio | OPTIONAL |
| txtraffichreshold | TX traffic detection threshold [packets/s] | OPTIONAL |
| rxtraffichreshold | RX traffic detection threshold [packets/s] | OPTIONAL |
| trafficsenseperiod | Period [s] over which the traffic on the WLAN interface is monitored | OPTIONAL |
| chanimtracing | Enable or disable CHANIM (Channel Interference Monitor) traces | OPTIONAL |
| trafficttracing | Enable or disable traffic detection traces | OPTIONAL |
| tracelevel | ACS debug trace level | OPTIONAL |
| interferencespan | Defines the number of channels before/after the target channel that are considered when measuring interference | OPTIONAL |
| chnoisethreshold | The noise threshold that is used by the CHANIM to compare the current measurement with the best one, if the threshold is exceeded a channel fail event is generated | OPTIONAL |
| chscorethreshold | The percentage of the total channel score difference that is needed to make the decision of switching channels after a rescan. | OPTIONAL |

wireless acs debug dumpacsmeas

ACS detailed scan summaries of the last performed scan

SYNTAX:

```
wireless acs debug dumpacsmeas topic = <{bss|chanim|candidate|bsslist}>
                                [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|------------------------------|----------|
| topic | Dump ACS Measurement results | REQUIRED |
| radio_id | radio | OPTIONAL |

wireless acs rescan

Performs Automatic Channel Selection

SYNTAX:

```
wireless acs rescan [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| radio_id | radio | OPTIONAL |
|----------|-------|----------|

wireless acs scanhistory

Shows ACS scanhistory

SYNTAX:

```
wireless acs scanhistory [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| radio_id | radio | OPTIONAL |
|----------|-------|----------|

wireless acs scanreport

Shows report for last performed scan

SYNTAX:

```
wireless acs scanreport [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| radio_id | radio | OPTIONAL |
|----------|-------|----------|

wireless debug stats

Transfer statistics

wireless debug traceconfig

Tracing configuration, configurable per module.

SYNTAX:

```
wireless debug traceconfig    [ssid_id = <number{0-9999}>]
                               [radio_id = <number{0-9999}>]
                               [radius = <{enabled|disabled}>]
                               [acs = <{enabled|disabled}>]
                               [wps = <{enabled|disabled}>]
                               [dot1x = <{enabled|disabled}>]
                               [level = <{some|more|detail}>]
```

where:

| | | |
|----------|---|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| radius | RADIUS related traces | OPTIONAL |
| acs | Automatic Channel Selection related traces, see acs configuration submenu for more detailed configuration options | OPTIONAL |
| wps | WPS related traces | OPTIONAL |
| dot1x | IEEE802.1x related traces | OPTIONAL |
| level | Trace level | OPTIONAL |

wireless debug txttest

Transmit test

SYNTAX:

```
wireless debug txttest [hwaddr = <hardware-address>]
                        [radio_id = <number{0-9999}>]
                        [state = <{enabled|disabled}>]
                        [duration = <number{0-86400}>]
                        [packetsize = <number{64-2346}>]
                        [ampdu = <{enabled|disabled}>]
                        [modulation = <{auto|CCK|OFDMLegacy|OFDMMCS}>]
                        [rateindex = <number{0-32}>]
                        [priority = <number{0-15}>]
```

where:

| | | |
|------------|-------------|----------|
| hwaddr | MAC Address | OPTIONAL |
| radio_id | Radio | OPTIONAL |
| state | State | OPTIONAL |
| duration | Test time | OPTIONAL |
| packetsize | Packet size | OPTIONAL |
| ampdu | Use ampdu | OPTIONAL |
| modulation | Modulation | OPTIONAL |
| rateindex | Index | OPTIONAL |
| priority | Priority | OPTIONAL |

wireless macacl add

Add an ACL MAC entry

SYNTAX:

```
wireless macacl add          [ssid_id = <number{0-9999}>]
                             [radio_id = <number{0-9999}>]
                             hwaddr = <hardware-address>
                             permission = <{allow|deny}>
                             [name = <quoted string>]
```

where:

| | | |
|------------|---|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| hwaddr | The Ethernet MAC address of the ACL entry | REQUIRED |
| permission | The action to be performed on ACL entry | REQUIRED |
| name | The name of the station | OPTIONAL |

wireless macacl config

Access Control List configuration

SYNTAX:

```
wireless macacl config      [ssid_id = <number{0-9999}>]
                             [radio_id = <number{0-9999}>]
                             [control = <{lock|unlock|register}>]
                             [regtime = <number{15-3600}>]
```

where:

| | | |
|----------|--------------------------|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| control | Access Control List mode | OPTIONAL |
| regtime | Registration time | OPTIONAL |

wireless macacl delete

Delete an ACL MAC entry

SYNTAX:

```
wireless macacl delete      [ssid_id = <number{0-9999}>]
                             [radio_id = <number{0-9999}>]
                             hwaddr = <hardware-address>
```

where:

| | | |
|----------|-----------------------------------|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| hwaddr | hardware address of the ACL entry | REQUIRED |

wireless macacl flush

Flushes ACL entries

SYNTAX:

```
wireless macacl flush      [ssid_id = <number{0-9999}>]
                           [radio_id = <number{0-9999}>]
                           proceed = <{disabled|enabled}>
```

where:

| | | |
|----------|-----------------------|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| proceed | Confirmation required | REQUIRED |

wireless macacl list

Shows a list of all configured ACL entries

SYNTAX:

```
wireless macacl list [ssid_id = <number{0-9999}>]  
                    [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|---------|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless macacl modify

Modify an ACL entry

SYNTAX:

```
wireless macacl modify      [ssid_id = <number{0-9999}>]
                             [radio_id = <number{0-9999}>]
                             hwaddr = <hardware-address>
                             [permission = <{allow|deny}>]
                             [name = <quoted string>]
```

where:

| | | |
|------------|---|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| hwaddr | The Ethernet MAC address of the ACL entry | REQUIRED |
| permission | The action to be performed on ACL entry | OPTIONAL |
| name | The name of the station | OPTIONAL |

wireless macacl register

Start a registration process (only for register mode)

SYNTAX:

```
wireless macacl register      [ssid_id = <number{0-9999}>]
                               [radio_id = <number{0-9999}>]
                               proceed = <{disabled|enabled}>
```

where:

| | | |
|----------|-----------------------|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| proceed | Confirmation required | REQUIRED |

wireless mssid ifadd

Add an extra ssid context

SYNTAX:

```
wireless mssid ifadd          [ssid = <quoted string>]  
                              [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| ssid | ssid | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless mssid ifattach

Attach a ssid context

SYNTAX:

```
wireless mssid ifattach          ssid_id = <number{0-9999}>  
                                [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| ssid_id | ssid | REQUIRED |
| radio_id | radio | OPTIONAL |

wireless mssid ifconfig

Configure a ssid context

SYNTAX:

```
wireless mssid ifconfig      ssid_id = <number{0-9999}>
                             [ssid = <quoted string>]
                             [apisolation = <{disabled|enabled}>]
                             [any = <{disabled|enabled}>]
                             [secmode = <{disable|wep|wpa-psk|wpa}>]
                             [WEPkey = <quoted string>]
                             [WPAPSKkey = <quoted string>]
                             [WPAPSKversion = <{WPA|WPA2|WPA+WPA2}>]
                             [maxassociations = <number{0-125}>]
                             [radio_id = <number{0-9999}>]
                             [WPAradiuskey = <quoted string>]
                             [WPArekeysec = <number>]
                             [WPAradiusip = <ipv4-address>]
                             [WPAradiusport = <number{0-65535}>]
                             [WPAradiussto = <number{1800-604800}>]
                             [WPAversion = <{WPA|WPA2|WPA+WPA2}>]
                             [stationhistory = <{disabled|enabled}>]
                             [convertmcast4 = <{disabled|flood|snopping|
                             snopping+flood}>]
                             [convertmcast6 = <{disabled|flood|snopping|
                             snopping+flood}>]
                             [convertbcast = <{disabled|flood}>]
```

where:

| | | |
|-----------------|--|----------|
| ssid_id | ssid id | REQUIRED |
| ssid | ssid | OPTIONAL |
| apisolation | ap isolation | OPTIONAL |
| any | public network | OPTIONAL |
| secmode | security mode | OPTIONAL |
| WEPkey | WEP key: expected format 5 or 13 ASCII characters, or 10 or 26 HEX digits. | OPTIONAL |
| WPAPSKkey | WPA-PSK key: expected format 8 to 63 ASCII characters or 64 HEX digits. | OPTIONAL |
| WPAPSKversion | wpa version | OPTIONAL |
| maxassociations | max amount of associations | OPTIONAL |
| radio_id | radio | OPTIONAL |
| WPAradiuskey | Radius key. | OPTIONAL |

| | | |
|----------------|------------------------|----------|
| WPArekeysec | Rekey interval | OPTIONAL |
| WPAradiusip | Radius server ip | OPTIONAL |
| WPAradiusport | Radius server port | OPTIONAL |
| WPAradiussto | Radius Session Timeout | OPTIONAL |
| WPAversion | wpa version | OPTIONAL |
| stationhistory | keep station history | OPTIONAL |
| convertmcast4 | Convert IPv4 multicast | OPTIONAL |
| convertmcast6 | Convert IPv6 multicast | OPTIONAL |
| convertbcast | Convert broadcast | OPTIONAL |

wireless mssid ifdelete

Delete a ssid context

SYNTAX:

```
wireless mssid ifdelete          ssid_id = <number{0-9999}>  
                                [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| ssid_id | ssid | REQUIRED |
| radio_id | radio | OPTIONAL |

wireless mssid ifdetach

Detach a ssid context

SYNTAX:

```
wireless mssid ifdetach          ssid_id = <number{0-9999}>  
                                [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| ssid_id | ssid | REQUIRED |
| radio_id | radio | OPTIONAL |

wireless mssid iflist

Multiple ssid configuration

SYNTAX:

```
wireless mssid iflist [ssid_id = <number{0-9999}>]  
[radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|-------|----------|
| ssid_id | ssid | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless qos apacconfig

configure AP EDCA parameters

SYNTAX:

```
wireless qos apacconfig      [class = <{AC_BE|AC_BK|AC_VI|AC_VO}>]
                             [cwmax = <{0|1|3|7|15|31|63|127|255|511|1023|
                             2047|4095|8191|16383|32767}>]
                             [cwmin = <{0|1|3|7|15|31|63|127|255}>]
                             [aifsn = <number{1-15}>]
                             [txop = <number>]
                             [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|------------------------------|----------|
| class | AC class | OPTIONAL |
| cwmax | CWmax configuration | OPTIONAL |
| cwmin | CWmin configuration | OPTIONAL |
| aifsn | Aifsn configuration | OPTIONAL |
| txop | txoplimit [us] configuration | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless qos config

configure QoS settings

SYNTAX:

```
wireless qos config [mode = <{disabled|wmm}>]
                    [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|------------|----------|
| mode | WMM active | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless qos staaconfig

configure STA EDCA parameters

SYNTAX:

```
wireless qos staaconfig      [class = <{AC_BE|AC_BK|AC_VI|AC_VO}>]
                             [cwmmax = <{0|1|3|7|15|31|63|127|255|511|1023|
                             2047|4095|8191|16383|32767}>]
                             [cwmin = <{0|1|3|7|15|31|63|127|255}>]
                             [aifsn = <number{1-15}>]
                             [txop = <number>]
                             [radio_id = <number{0-9999}>]
```

where:

| | | |
|----------|------------------------------|----------|
| class | AC class | OPTIONAL |
| cwmmax | CWmax configuration | OPTIONAL |
| cwmin | CWmin configuration | OPTIONAL |
| aifsn | Aifsn configuration | OPTIONAL |
| txop | txoplimit [us] configuration | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless radio

Configures radio settings.

SYNTAX:

```
wireless radio [state = <{enabled|disabled}>]
                [channel = <{auto|1|2|3|4|5|6|7|8|9|10|11|12|
                13}>]
                [interop = <{802.11b/g|802.11b/g/n}>]
                [frameburst = <{disabled|enabled}>]
                [channelwidth = <{20|20/40}>]
                [sgi = <{disabled|enabled}>]
                [cdd = <{disabled|enabled}>]
                [stbc = <{disabled|enabled}>]
                [frameaggregation = <{off|ampdu|amsdu}>]
                [radio_id = <number{0-9999}>]
```

where:

| | | |
|------------------|---|----------|
| state | Interface operational status of wireless access point | OPTIONAL |
| channel | Communication channel number | OPTIONAL |
| interop | Interoperability mode | OPTIONAL |
| frameburst | Framebursting | OPTIONAL |
| channelwidth | channelwidth | OPTIONAL |
| sgi | Short Guard Time Interval | OPTIONAL |
| cdd | Cyclic Delay Diversity | OPTIONAL |
| stbc | Space Time Block Coding | OPTIONAL |
| frameaggregation | Frame aggregation method | OPTIONAL |
| radio_id | radio | OPTIONAL |

wireless radius config

RADIUS configuration

SYNTAX:

```
wireless radius config      [radio_id = <number{0-9999}>]
                             [ssid_id = <number{0-9999}>]
                             [auth_order = <quoted string>]
                             [acct_order = <quoted string>]
                             [deadto = <number>]
```

where:

| | | |
|------------|--|----------|
| radio_id | Physical radio on which the server is created | OPTIONAL |
| ssid_id | Logical interface (BSSID) on which the server is created | OPTIONAL |
| auth_order | Order in which the defined authentication servers per BSSID are (re)tried. The definition is done via a quoted, comma separated string. E.g. "1,2,3" | OPTIONAL |
| acct_order | Order in which the defined accounting servers per BSSID are (re)tried. The definition is done via a quoted, comma separated string. E.g. "1,2,3" | OPTIONAL |
| deadto | the period after which a RADIUS server that was marked as dead will be reanimated | OPTIONAL |

wireless radius server config

RADIUS server configuration

SYNTAX:

```
wireless radius server config [radio_id = <number{0-9999}>]
                               [ssid_id = <number{0-9999}>]
                               [radius_id = <number{0-2}>]
                               [state = <{enabled|disabled}>]
                               [ip = <ipv4-address>]
                               [fqdn = <quoted string>]
                               [port = <{undefined|at-echo|at-nbp|at-rtmp|at-
ziss|auth|bgp|biff|bootpc|finger|ftp|ftp-data|
gopher|h323|httpproxy|ike|ils|imap2|imap3|
ingres-net|ipcserver|ipx|irc-o|irc-u|kerberos|
ldap|login|netbios-dgm|netbios-ns|netbios-
ssn|netwall|netware-ip|new-rwho|nfsd|nicname|
nntp|ntalk|ntp|pcmail-srv|pop2|pop3|printer|
gotd|realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
sunrpc|syslog|sysstat|talk|telnet|time|timed|
tftp|ulistserv|utime|uucp|uucp-rlogin|who|www-
http|whoami|xwindows} or number>]
                               [dhcpaccounting = <{no|yes}>]
                               [type = <{authentication|accounting}>]
                               [secret = <password>]
```

where:

| | | |
|----------------|--|----------|
| radio_id | Physical radio on which the server is created | OPTIONAL |
| ssid_id | Logical interface (BSSID) on which the server is created | OPTIONAL |
| radius_id | RADIUS server id per BSSID | OPTIONAL |
| state | Enable or disable server | OPTIONAL |
| ip | RADIUS server ip address | OPTIONAL |
| fqdn | RADIUS server fully qualified domain name | OPTIONAL |
| port | RADIUS server communication port | OPTIONAL |
| dhcpaccounting | RADIUS server dhcp accounting state | OPTIONAL |
| type | RADIUS server type | OPTIONAL |
| secret | RADIUS server secret - RADIUS key | OPTIONAL |

wireless reset

Reset Wireless interface settings to defaults

SYNTAX:

```
wireless reset          proceed = <{disabled|enabled}>
```

where:

| | | |
|---------|-----------------------|----------|
| proceed | Confirmation required | REQUIRED |
|---------|-----------------------|----------|

wireless stations history config

Configure station history

SYNTAX:

```
wireless stations history      [persistent = <{disabled|enabled}>]  
config                        [autosavedelay = <number{0-240}>]
```

where:

| | | |
|---------------|-----------------|----------|
| persistent | Persistency | OPTIONAL |
| autosavedelay | Auto save delay | OPTIONAL |

wireless stations history list

List the station history

SYNTAX:

```
wireless stations history list [ssid_id = <number{0-9999}>]
                               [radio_id = <number{0-9999}>]
                               [hwaddr = <hardware-address>]
```

where:

| | | |
|----------|---|----------|
| ssid_id | Selected BSS | OPTIONAL |
| radio_id | radio | OPTIONAL |
| hwaddr | The Ethernet MAC address of the station | OPTIONAL |

wireless stations history reset

Reset history

wireless stations history save

Save history

wireless stations list

List of the currently associated stations

SYNTAX:

```
wireless stations list      [ssid_id = <number{0-9999}>]
                             [radio_id = <number{0-9999}>]
                             [hwaddr = <hardware-address>]
```

where:

| | | |
|----------|---|----------|
| ssid_id | Selected BSS | OPTIONAL |
| radio_id | radio | OPTIONAL |
| hwaddr | The Ethernet MAC address of the station | OPTIONAL |

wireless wps config

Configure/Show the WPS settings

SYNTAX:

```
wireless wps config [ssid_id = <number{0-9999}>]
                    [radio_id = <number{0-9999}>]
                    [state = <{disabled|enabled}>]
                    [apsetuplocked = <{disabled|enabled}>]
                    [wscstate = <{notconfigured|configured}>]
                    [ap_pin = <quoted string>]
```

where:

| | | |
|---------------|--|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| state | WPS state | OPTIONAL |
| apsetuplocked | AP Setup Lock | OPTIONAL |
| wscstate | WSC State | OPTIONAL |
| ap_pin | Modify the PIN that is used to configure the AP with an External Registrar | OPTIONAL |

wireless wps pin

Enroll a WSC Station by entering its device password or PIN

SYNTAX:

```
wireless wps pin          [ssid_id = <number{0-9999}>]
                          [radio_id = <number{0-9999}>]
                          value = <quoted string>
```

where:

| | | |
|----------|----------------------|----------|
| ssid_id | ssid id | OPTIONAL |
| radio_id | radio | OPTIONAL |
| value | Enrollee Station PIN | REQUIRED |

xdsl Commands

| | | |
|-----------------------------------|--|---------------|
| <i>xdsl config</i> | <i>Modify/Display dsl configuration</i> | see page 1320 |
| <i>xdsl debug bitloadinginfo</i> | <i>Displays # bits per tone</i> | see page 1321 |
| <i>xdsl debug deltcconfig</i> | <i>Dual Ended Line Testing interface</i> | see page 1322 |
| <i>xdsl debug deltinfor</i> | <i>Dual Ended Line Test result display</i> | see page 1323 |
| <i>xdsl debug modemoptioninfo</i> | <i>The modem options bitmap display</i> | see page 1324 |
| <i>xdsl debug multimode</i> | <i>Config custom multimode</i> | see page 1325 |
| <i>xdsl debug traceconfig</i> | <i>Config the adsl tracelevel</i> | see page 1326 |
| <i>xdsl info</i> | <i>Displays status information about modem</i> | see page 1327 |
| <i>xdsl version</i> | <i>Display xdsl version information.</i> | see page 1328 |

xdsl config

Modify/Display dsl configuration

SYNTAX:

```
xdsl config [adslmultimode = <{disable|adsl|adsl2|
adsl2plus}>]
[detect-lop = <{disabled|enabled}>]
[syslog = <{disabled|enabled}>]
[status = <{down|up}>]
```

where:

| | | |
|---------------|--|----------|
| adslmultimode | Set/Show selected multimode type of the modem | OPTIONAL |
| detect-lop | Detect Loss Of Power | OPTIONAL |
| syslog | Log in syslog during showtime | OPTIONAL |
| status | configure adsl line up or down (setting can't be saved!) | OPTIONAL |

xdsl debug bitloadinginfo

Displays # bits per tone

xdsl debug deltconfig

Dual Ended Line Testing interface

SYNTAX:

```
xdsl debug deltconfig [state = <{disabled|enabled}>]
```

where:

| | | |
|-------|--|----------|
| state | Enable/Disable dual ended line testing | OPTIONAL |
|-------|--|----------|

xdsl debug delinfo

Dual Ended Line Test result display

xdsl debug modemoptioninfo

The modem options bitmap display

xdsl debug multimode

Config custom multimode

SYNTAX:

```
xdsl debug multimode [config = <[+/-]flag[+/-flag...]{default
t1.413issue2 g992.1_annex_a g992.2
g992.5_annex_m}>]
```

where:

| | | |
|--------|-----------------------------|----------|
| config | The custom multimode bitmap | OPTIONAL |
|--------|-----------------------------|----------|

xdsl debug traceconfig

Config the adsl tracelevel

SYNTAX:

```
xdsl debug traceconfig          level = <{0|1|2|3|4}>
```

where:

| | | |
|-------|--|----------|
| level | Trace Level (0=disable tracing; 1=enable dsl manager tracing; 2=enable dsl driver tracing) | REQUIRED |
|-------|--|----------|

xdsl info

Displays status information about modem

SYNTAX:

```
xdsl info [expand = <{disabled|enabled}>]
          [g.997.1 = <{disabled|enabled}>]
          [counter_period_filter = <{current|15_minutes|
          24_hours}>]
          [counters_reset = <{no|yes}>]
```

where:

| | | |
|-----------------------|---|----------|
| expand | Condensed / Expanded listing link information | OPTIONAL |
| g.997.1 | Condensed / Expanded listing link information | OPTIONAL |
| counter_period_filter | Specify the statistics period | OPTIONAL |
| counters_reset | Reset all counters | OPTIONAL |

xdsl version

Display xdsl version information.

