



THOMSON



Thomson TG576 v7 and TG585 v7
Residential DSL Gateway



CLI Reference Guide R7.4

Thomson TG576 v7 and TG585 v7

CLI Reference Guide R7.4

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? Command

? Command

Displays this help information

.. Command

.. Command

Exits group selection.

atm Commands

atm cac config	Configure ATM connection admission control.	see page 31
atm cac list	List all CAC parameters.	see page 32
atm cac overbooking	Configure ATM overbooking parameters.	see page 33
atm debug aal5stats	Display AAL5 port specific atm statistics.	see page 34
atm debug gstats	Display ATM global statistics.	see page 35
atm debug portstats	Display port specific atm statistics.	see page 36
atm flush	Flush all ATM interfaces.	see page 37
atm ifadd	Create a new ATM interface.	see page 38
atm ifattach	Attach an ATM interface.	see page 39
atm ifconfig	Modify an ATM interface.	see page 40
atm ifdelete	Delete an ATM interface.	see page 41
atm ifdetach	Detach an ATM interface.	see page 42
atm iflist	Display the ATM interfaces.	see page 43
atm oam cc list	Display CC configuration.	see page 44
atm oam cc modify	Modify CC on the connection.	see page 45
atm oam cc send	Send CC activate/deactivate to connection.	see page 46
atm oam config	Modify the ATM OAM settings.	see page 47
atm oam list	Display the ATM OAM settings.	see page 48
atm oam modify	Modify the ATM OAM data blocking mode.	see page 49
atm oam ping	Send ATM loopback cells.	see page 50
atm oam vclb add	Create a loopback connection for VC	see page 51
atm oam vclb del	Delete a loopback connection for VC	see page 52
atm oam vclb list	List all VC loopback connections	see page 53
atm phonebook add	Add a new phonebook entry.	see page 54
atm phonebook autolist	Display auto PVC's.	see page 55

atm phonebook delete	Delete a phonebook entry.	see page 56
atm phonebook flush	Flush all phonebook entries.	see page 57
atm phonebook list	Display the phonebook.	see page 58
atm qosbook add	Add a new qosbook entry.	see page 59
atm qosbook config	Modify the qosbook configuration.	see page 60
atm qosbook ctdadd	Add a new connection traffic descriptor.	see page 61
atm qosbook ctdelete	Delete a connection traffic descriptor.	see page 62
atm qosbook ctdlist	Display all connection traffic descriptors.	see page 63
atm qosbook delete	Delete a qosbook entry.	see page 64
atm qosbook flush	Flush all qosbook entries.	see page 65
atm qosbook list	Display the qosbook.	see page 66

atm Commands

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 aal5stats

Display AAL5 port specific atm statistics.

SYNTAX:

```
atm debug aal5stats          port = <{ds10|ds11|atm2|atm3|aal5|atm5} or
                             number>
                             vpi = <number{0-31}>
                             [vci = <number{0-511}>]
                             [clear = <{disabled|enabled}>]
```

where:

port	The port number for which statistics will be retrieved.	REQUIRED
vpi	The VPI number for which statistics will be retrieved.	REQUIRED
vci	The VCI number for which statistics will be retrieved.	OPTIONAL
clear	Clear the statistics after request.	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 portstats

Display port specific atm statistics.

SYNTAX:

```
atm debug portstats          port = <{ds10|ds11|atm2|atm3|aal5|atm5} or  
                             number>  
                             [clear = <{disabled|enabled}>]
```

where:

port	The port for which statistics will be retrieved.	REQUIRED
clear	Clear the statistics after the request.	OPTIONAL

atm flush

Flush all ATM interfaces.

atm ifadd

Create a new ATM interface.

SYNTAX:

```
atm ifadd                               intf = <string>
```

where:

intf	The name for the new ATM interface. If not specified, the destination will double as interface name.	REQUIRED
------	--	----------

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}>
                    [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
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 Commands

atm oam cc modify

Modify CC on the connection.

SYNTAX:

```
atm oam cc modify          port = <{ds10|ds11|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 Commands

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 Commands

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 autolist

Display auto PVC's.

atm phonebook delete

Delete a phonebook entry.

SYNTAX:

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

where:

name	The name of the entry 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 ctdddelete

Delete a connection traffic descriptor.

SYNTAX:

```
atm qosbook ctdddelete      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.

autopvc Commands

autopvc config

Configure autopvc.

see page 68

autopvc list

Show retrieved information.

see page 69

autopvc config

Configure autopvc.

SYNTAX:

```
autopvc config [mode = <{pseudo|passive|active}>
               [type = <{bridge|pppoerelay|ipoa|ethoa|pppoa|
               pppoe}>
               [overwrite = <{disabled|enabled}>]
               [peakrate = <number{0-27786}>]]>
```

where:

mode	Autopvc mode.	OPTIONAL
type	Type of autopvc.	OPTIONAL
overwrite	Enable/disable UBR peak rate overwrite.	OPTIONAL
peakrate	The UBR peak rate (in kilobits per second) '0' to indicate linerate.	OPTIONAL

autopvc Commands

autopvc list

Show retrieved information.

SYNTAX:

```
autopvc list [table = <{Port|AtmLayer|Vpc|Vcc|Address|
AddressRegistrationAdmin|AAL5Profile|
AAL2CommonProfile|AAL2TrunkingProfile|
AAL2LESPProfile|AtmServiceConnInfoExtension|
AtmServiceTypeExtension|
AAL5ProfileExtension}]>
```

where:

table	Autopvc table.	OPTIONAL
-------	----------------	----------

config Commands

config delete	Delete a user configuration file.	see page 72
config dump	Show the saved configuration file	see page 73
config flush	Flush the loaded configuration.	see page 74
config list	Show the current configuration set	see page 75
config load	Load saved or default configuration.	see page 76
config save	Store current configuration to backup file	see page 77

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 Commands

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

connection appconfig	Modify a CONN/NAT application helper configuration	see page 80
connection appinfo	Display CONN/NAT application specific info	see page 81
connection applist	Display the available CONN/NAT application helpers.	see page 82
connection bind	Create a CONN/NAT application helper/port binding.	see page 83
connection bindlist	Display the CONN/NAT application helper/port bindings.	see page 84
connection clean	Clean connection database by forcing timeouts.	see page 85
connection clear	Kill all connections.	see page 86
connection config	Modify global connection configuration.	see page 87
connection debug	Connection debug commands.	see page 88
connection describe	Describe the streams of a connection.	see page 89
connection flush	Flush the connection configuration.	see page 90
connection info	Display all modules with some info.	see page 91
connection list	Display the currently known connections.	see page 92
connection refresh	Invalidate all cached decisions.	see page 93
connection stats	Display connection and stream statistics.	see page 94
connection timerclear	Clear connection timeout to default.	see page 95
connection timerconfig	Modify connection timeout handling.	see page 96
connection unbind	Delete a CONN/NAT application helper/port binding.	see page 97

connection appconfig

Modify a CONN/NAT application helper configuration

SYNTAX:

```
connection appconfig
    application = <{IP6TO4|PPTP|ESP|IKE|SIP|
    JABBER|CU/SeeMe|RAUDIO(PNA)|RTSP|ILS|H245|
    H323|IRC|GAME(UDP)|CONE(UDP)|LOOSE(UDP)|FTP}>
    [trace = <{disabled|enabled}>]
    [timeout = <number{0-32000}>]
    [childqos = <{DSCP|Interactive|Management|
    Video|VoIP-RTP|VoIP-Signal|default}>]
    [floating = <{disabled|enabled}>]
    [proxy = <{disabled|enabled}>]
    [tracelevel = <number{1-4}>]
    [SIP_ALG = <{disabled|enabled}>]
    [RTP_predict_for_term_SIP_ALG = <{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	SIP trace level: 1=feature errors; 2=feature traces; 3=all errors; 4=all traces.	OPTIONAL
SIP_ALG	SIP only: enable/disable traditional sip alg behaviour	OPTIONAL
RTP_predict_for_term_SIP_ALG	SIP only: enable/disable RTP connection prediction for terminated SIP	OPTIONAL

connection Commands

connection appinfo

Display CONN/NAT application specific info

SYNTAX:

```
connection appinfo          application = <{IP6TO4|PPTP|ESP|IKE|SIP|
                           JABBER|CU/SeeMe|RAUDIO(PNA)|RTSP|ILS|H245|
                           H323|IRC|GAME(UDP)|CONE(UDP)|LOOSE(UDP)|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 Commands

connection bind

Create a CONN/NAT application helper/port binding.

SYNTAX:

```
connection bind application = <{IP6TO4|PPTP|ESP|IKE|SIP|
JABBER|CU/SeeMe|RAUDIO(PNA)|RTSP|ILS|H245|
H323|IRC|GAME(UDP)|CONE(UDP)|LOOSE(UDP)|FTP}>
port = <port-range>
```

where:

application	The name of a CONN/NAT application helper as listed by ':connection applist'.	REQUIRED
port	The port number or range this application handler should work on.	REQUIRED

connection bindlist

Display the CONN/NAT application helper/port bindings.

connection Commands

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 Commands

connection config

Modify global connection configuration.

SYNTAX:

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

where:

configchangemode	Select how config changes are handled.	OPTIONAL
probes	Enable/disable alive probes on idle connections.	OPTIONAL
udptrackmode	UDP connection tracking mode.	OPTIONAL

connection debug

Connection debug commands.

SYNTAX:

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

where:

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

connection Commands

connection describe

Describe the streams of a connection.

SYNTAX:

```
connection describe [id = <number{0-2048}>]
```

where:

id	The connection ID to describe.	OPTIONAL
----	--------------------------------	----------

connection flush

Flush the connection configuration.

connection Commands

connection info

Display all modules with some info.

connection list

Display the currently known connections.

SYNTAX:

```
connection list [nr = <number{1-2048}>
                [history = <{disabled|enabled}>]
```

where:

nr	The number of connections to display.	OPTIONAL
history	If enabled, show history.	OPTIONAL

connection refresh

Invalidate all cached decisions.

connection stats

Display connection and stream statistics.

connection Commands

connection timerclear

Clear connection timeout to default.

SYNTAX:

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

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|icmpkill|ipidle|ipkill|aiprefresh}>
                        [value = <number{0-86400}>]
```

where:

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

connection Commands

connection unbind

Delete a CONN/NAT application helper/port binding.

SYNTAX:

```
connection unbind application = <{IP6TO4|PPTP|ESP|IKE|SIP|
JABBER|CU/SeeMe|RAUDIO(PNA)|RTSP|ILS|H245|
H323|IRC|GAME(UDP)|CONE(UDP)|LOOSE(UDP)|FTP}>
port = <port-range>
```

where:

application	The name of a CONN/NAT application helper as listed by ':connection applist'.	REQUIRED
port	The port number or range this application handler should work on.	REQUIRED

cwmp Commands

cwmp config	Configure the cwmpd as seen from the ACS.	see page 100
cwmp debug traceconfig	Enable or disable tracing.	see page 102
cwmp server config	Configure the cwmpd towards the ACS.	see page 103

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>]
            [sessionTimeout = <number>]
            [noIpTimeout = <number>]
            [maxEnvelopes = <number>]
            [connectionRequest = <{disabled|enabled}>]
            [connectionReqPath = <string>]
            [connectionReqUserName = <quoted string>]
            [connectionReqPsswd = <password>]
            [connectionReqAuth = <{none|basic|digest}>]
            [qos-class = <number>]
            [bootdelayrange = <number>]
            [upgradedelay = <{disabled|enabled}>]
            [amlTermination = <{disabled|enabled}>]
            [persistentSubscription = <{disabled|
            enabled}>]
    
```

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
sessionTimeout	Set HTTP session-timeout in seconds.	OPTIONAL
noIpTimeout	Set time (in seconds) ip may be 0 after uploading new config file.	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

cwmp Commands

connectionReqAuth	Set the authentication type of modem CWMP server for asynchronous connects.	OPTIONAL
qos-class	Set the quality of service class for outgoing CWMP data.	OPTIONAL
bootdelayrange	Set the delay on boot before inform is sent.	OPTIONAL
upgradedelay	Set whether to delay upgrade if services are active.	OPTIONAL
am1Termination	Set if am 1 session termination is enabled.	OPTIONAL
persistentSubscription	The cwmp daemon has persistent subscriptions.	OPTIONAL

cwmp debug traceconfig

Enable or disable tracing.

SYNTAX:

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

where:

level	Set the tracelevel (0-1)	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

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

dhcp client debug clear	Clear DHCP client statistics	see page 111
dhcp client debug stats	Print DHCP client statistics	see page 112
dhcp client debug traceconfig	Modify DHCP client trace configuration	see page 113
dhcp client flush	Delete all DHCP clients.	see page 114
dhcp client ifadd	Create a DHCP client.	see page 115
dhcp client ifattach	Activate a DHCP client.	see page 116
dhcp client ifconfig	Configure a DHCP client.	see page 117
dhcp client ifdelete	Delete a DHCP client.	see page 118
dhcp client ifdetach	De-activate a DHCP client and releases its lease.	see page 119
dhcp client iflist	List DHCP clients.	see page 120
dhcp client ifrenew	Renew a DHCP lease.	see page 121
dhcp client roptions add	Add a DHCP Option Code to the Parameter Request List.	see page 122
dhcp client roptions delete	Delete a DHCP Option Code from the Parameter Request List.	see page 123
dhcp client roptions list	List all DHCP Option Codes in the Parameter Request List.	see page 124
dhcp client roptions optionlist	List all DHCP Option Codes that can be used in the Parameter Request List.	see page 125
dhcp client txoptions add	Add an option.	see page 126
dhcp client txoptions delete	Delete an option.	see page 127
dhcp client txoptions list	List all options.	see page 128
dhcp client txoptions optionlist	Lists all DHCP Option Codes that can be used.	see page 129
dhcp relay add	Add an entry to the DHCP forward list.	see page 130
dhcp relay config	Sets the relay configuration settings.	see page 131
dhcp relay debug stats	Print DHCP relay statistics.	see page 132
dhcp relay debug traceconfig	Modify DHCP relay trace configuration	see page 133

dhcp relay delete	Delete an entry from the DHCP forward list.	see page 134
dhcp relay flush	Flushes the DHCP relay settings.	see page 135
dhcp relay ifconfig	Configure a relay interface.	see page 136
dhcp relay iflist	Show the configuration of the relay interfaces.	see page 137
dhcp relay list	List the DHCP forward list.	see page 138
dhcp relay modify	Modify an entry from the DHCP forward list.	see page 139
dhcp relay ruleadd	Add a selection rule to a DHCP forward entry	see page 140
dhcp relay ruledel	Delete a selection rule from a DHCP forward entry	see page 141
dhcp rule add	Add a rule for DHCP conditional selection	see page 142
dhcp rule debug traceconfig	Modify DHCP rule trace configuration	see page 143
dhcp rule delete	Delete a DHCP rule	see page 144
dhcp rule flush	Flush all DHCP rules	see page 145
dhcp rule list	List all DHCP rules	see page 146
dhcp server config	Print DHCP server configuration settings	see page 147
dhcp server debug clear	Clear DHCP server statistics	see page 148
dhcp server debug stats	Print DHCP server statistics	see page 149
dhcp server debug traceconfig	Modify DHCP server trace configuration	see page 150
dhcp server flush	Flush all DHCP server pool and lease entries	see page 151
dhcp server lease add	Add a DHCP server lease	see page 152
dhcp server lease delete	Delete a DHCP server lease	see page 153
dhcp server lease flush	Flush all DHCP server leases	see page 154
dhcp server lease list	List all DHCP server leases	see page 155
dhcp server option flush	Flush all DHCP server option templates and instances	see page 156
dhcp server option instadd	Add a DHCP server option instance	see page 157
dhcp server option instdelete	Delete a DHCP server option instance	see page 158

dhcp Commands

dhcp server option instlist	List all DHCP server option instances	see page 159
dhcp server option ruleadd	Add a selection rule to a DHCP server option instance	see page 160
dhcp server option ruledel	Delete a selection rule from a DHCP server option instance	see page 161
dhcp server option tmpladd	Add a DHCP server option template	see page 162
dhcp server option tmpldelete	Delete a DHCP server option template	see page 163
dhcp server option tmpllist	List all DHCP server option templates	see page 164
dhcp server policy	Print DHCP server policy settings	see page 165
dhcp server pool add	Add a DHCP server pool	see page 166
dhcp server pool config	Configure a DHCP server pool	see page 167
dhcp server pool delete	Delete a DHCP server pool	see page 169
dhcp server pool flush	Flush all DHCP server pools	see page 170
dhcp server pool list	List all DHCP server pools	see page 171
dhcp server pool optadd	Add an option instance to the DHCP server pool	see page 172
dhcp server pool optdelete	Delete an option instance from the DHCP server pool	see page 173
dhcp server pool rtadd	Add a route to the DHCP server pool	see page 174
dhcp server pool rtdel	Delete a route from the DHCP server pool	see page 175
dhcp server pool ruleadd	Add a selection rule to the DHCP server pool	see page 176
dhcp server pool ruledel	Delete a selection rule from the DHCP server pool	see page 177
dhcp spoofing add	Add a Spoofing-Association	see page 178
dhcp spoofing attach	Enable a Spoofing-Association	see page 179
dhcp spoofing config	Display/modify dhcp spoofing state	see page 180
dhcp spoofing debug traceconfig	Display/modify DHCP spoofing trace configuratin	see page 181
dhcp spoofing delete	Delete a Spoofing-Association	see page 182
dhcp spoofing detach	Disable a Spoofing-Association	see page 183
dhcp spoofing flush	Flush all the associations and the options.	see page 184

dhcp spoofing list	List the available Spoofing-Associations	see page 185
dhcp spoofing option-add	Add a DHCP Option Code to a Spoofing-Association.	see page 186
dhcp spoofing option-delete	Delete a DHCP Option Code from a Spoofing-Association.	see page 187

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 Commands

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 Commands

dhcp client ifconfig

Configure a DHCP client.

SYNTAX:

```
dhcp client ifconfig          intf = <>
                              [label = <{None|DSCP|Interactive|Management|
                              Video|VoIP-RTP|VoIP-Signal|default}}>
                              [metric = <number{0-255}}>
                              [dnsmetric = <number{0-100}}>
                              [broadcast = <{disabled|enabled}}>
                              [serverroute = <{disabled|enabled}}>
                              [followlabel = <{disabled|enabled}}>
```

where:

intf	The name of the dynamic interface to be configured.	REQUIRED
label	Label for default gateway and static routes.	OPTIONAL
metric	Route metric for default gateway and static routes.	OPTIONAL
dnsmetric	DNS route metric.	OPTIONAL
broadcast	Operate client in unicast/broadcast mode.	OPTIONAL
serverroute	Insert a route for the DHCP server IP	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

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 Commands

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|...} 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|...} 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|...} or number>
                               [enterprise = <number{1-2147483647}]>
                               [suboption = <number{1-254}]>
                               value = <Value : (type)value; type being 8-
                               bit, 16-bit, 32-bit, addr, >
                               [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|...} or number>
                                [enterprise = <number{1--1}>]
                                [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 txoptions list

List all options.

SYNTAX:

```
dhcp client txoptions 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 relay add

Add an entry to the DHCP forward list.

SYNTAX:

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

where:

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

dhcp Commands

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 Commands

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 Commands

dhcp relay modify

Modify an entry from the DHCP forward list.

SYNTAX:

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

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 rule add

Add a rule for DHCP conditional selection

SYNTAX:

```
dhcp rule add
    name = <string>
    type = <{option|mac|vci|uci}>
    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|...} or number>
    [enterprise = <number{1-2147483647}>]
    [suboption = <number{1-254}>]
    [value = <Value : (type)value; type being
    addr, ascii, byte_array, >]
    [match = <{exactly|as_substring}>]
    mac [!] = <hardware-address with wildcard ex:
    '00:9f:aa:*:*:*'>
```

where:

name	The name of the DHCP rule.	REQUIRED
type	Specify the DHCP rule type.	REQUIRED
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

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 = <>
```

where:

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

dhcp Commands

dhcp rule flush

Flush all DHCP rules

dhcp rule list

List all DHCP rules

dhcp Commands

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 Commands

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 Commands

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 = <ip-address>]
                           [offset = <number>]
                           [leasetime = <number>]
                           [expirytime = <number>]
                           [gateway = <ip-address|0|none>]
                           [macaddr = <hardware-address>]
```

where:

clientid	The DHCP client identification string of the host.	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
leasetime	The time in seconds the client is allowed to use an address (tip: 0 means infinite leasetime).	OPTIONAL
expirytime	The time in seconds the DHCP server keeps the lease reserved (tip: 0 means infinite expirytime).	OPTIONAL
gateway	The IP address of the default router for this client.	OPTIONAL
macaddr	The host MAC address.	OPTIONAL

dhcp server lease delete

Delete a DHCP server lease

SYNTAX:

```
dhcp server lease delete      [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 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 Commands

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, >
```

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 tpldelete

Delete a DHCP server option template

SYNTAX:

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

where:

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

dhcp server option tmplist

List all DHCP server option templates

dhcp Commands

dhcp server policy

Print DHCP server policy settings

SYNTAX:

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

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

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 Commands

dhcp server pool config

Configure a DHCP server pool

SYNTAX:

```
dhcp server pool config      name = <{LAN_private}>
                             [state = <{disabled|enabled}>]
                             [intf = <{Internet|LocalNetwork}>]
                             [index = <number>]
                             [poolstart = <ip-address>]
                             [poolend = <ip-address>]
                             [netmask = <ip-mask(dotted or cidr)>]
                             [gateway = <ip-address|0|none>]
                             [server = <ip-address|none>]
                             [primdns = <ip-address|none>]
                             [secdns = <ip-address|none>]
                             [dnsmetric = <number{0-100}>]
                             [primwins = <ip-address|none>]
                             [secwins = <ip-address|none>]
                             [leasetime = <number{0-1814400}>]
                             [renewtime = <number{0-1814400}>]
                             [rebindtime = <number{0-1814400}>]
                             [unnumbered = <{disabled|enabled}>]
                             [localgw = <{disabled|enabled}>]
```

where:

name	The name of the DHCP server pool.	REQUIRED
state	Enable/Disable the DHCP server pool admin state.	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
dnsmetric	The DHCP server pool DNS route metric.	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
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

dhcp Commands

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 Commands

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 = <ip-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 Commands

dhcp server pool rtdelete

Delete a route from the DHCP server pool

SYNTAX:

```
dhcp server pool rtdelete      name = <{LAN_private}>
                               dst = <ip-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 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

dns client config	Modify the DNS resolver configuration.	see page 190
dns client dnsadd	Add a DNS server.	see page 191
dns client dnsdelete	Delete a DNS server.	see page 192
dns client dnslist	List all DNS servers.	see page 193
dns client flush	Remove all DNS servers.	see page 194
dns client nslookup	DNS lookup for a domain name or an address.	see page 195
dns server config	DNS server configuration settings	see page 196
dns server debug clear	Clear the DNS server/forwarder statistics.	see page 197
dns server debug spoof clear	Clear the intercept cache table	see page 198
dns server debug spoof getaddress	Get the real ip for the given spoofed ip	see page 199
dns server debug spoof getflags	Get the error flags for the given spoofed ip	see page 200
dns server debug spoof list	List the intercept cache table.	see page 201
dns server debug spoof update	update the intercept cache table	see page 202
dns server debug stats	Print the DNS server/forwarder statistics.	see page 203
dns server flush	Flush all local DNS hosts and routes.	see page 204
dns server host add	Add a local DNS host	see page 205
dns server host delete	Delete a local DNS host	see page 206
dns server host flush	Flush all local DNS hosts	see page 207
dns server host list	List all local DNS hosts	see page 208
dns server route add	Creates a DNS forwarding entry or template	see page 209
dns server route delete	Deletes a DNS forwarding entry or template	see page 210
dns server route flush	Removes all DNS forwarding entries and templates	see page 211
dns server route list	Lists all DNS forwarding entries and templates	see page 212

dns client config

Modify the DNS resolver configuration.

SYNTAX:

```
dns client config [timeout = <number{1-900}>]
                  [retry = <number{0-10}>]
                  [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
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 Commands

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{0-2147483647}>]
                  [suppress = <number>]
                  [state = <{disabled|enabled}>]
                  [trace = <{disabled|enabled}>]
                  [syslog = <{disabled|enabled}>]
                  [WANDownSpoofing = <{disabled|enabled}>]
                  [WDSpoofedIP = <ip-address>]
```

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

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 = <ip-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 = <ip-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 routes.

dns server host add

Add a local DNS host

SYNTAX:

```
dns server host add      name = <string>
                        [addr = <ip-address>]
                        [ttl = <number{0-2147483647}>]
```

where:

name	The name of an IP host to add.	REQUIRED
addr	The IP 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

dns Commands

dns server route add

Creates a DNS forwarding entry or template

SYNTAX:

```
dns server route add          dns = <ip-address>
                              [src = <ip-address>]
                              [srcmask = <ip-mask(dotted or cidr)>]
                              [domain = <string>]
                              [metric = <number{0-100}>]
                              [label = <{None|DSCP|Interactive|Management|
                              Video|VoIP-RTP|VoIP-Signal|default}>]
                              [intf = <{loop|Internet|LocalNetwork}>]
```

where:

dns	The IP address of a DNS server. If 0.0.0.0 is used, the entry becomes a DNS-Template which is instantiated if DNS Server IPs are configured on an IP interface.	REQUIRED
src	If specified, only DNS queries from machines of which the source IP address matches the source prefix of the DNS entry will be forwarded to the corresponding DNS server.	OPTIONAL
srcmask	The IP address mask for the source prefix.	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
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
label	The label associated with the DNS entry or DNS Template.	OPTIONAL
intf	The interface associated with the DNS entry or DNS Template.	OPTIONAL

dns server route delete

Deletes a DNS forwarding entry or template

SYNTAX:

```
dns server route delete      dns = <ip-address>
                             [domain = <string>]
                             [intf = <{loop|Internet|LocalNetwork}>]
```

where:

dns	The IP address of a DNS server.	REQUIRED
domain	The DNS domain string.	OPTIONAL
intf	The interface associated with the DNS entry or DNS Template.	OPTIONAL

dns server route flush

Removes all DNS forwarding entries and templates

dns server route list

Lists all DNS forwarding entries and templates

dsd Commands

dsd config	Display/modify DSD framework configuration	see page 214
dsd debug config	Display/modify DSD debug settings	see page 215
dsd debug connection list	Display internal connection pool usage	see page 216
dsd debug proxy	Display/modify HTTPPI fixed proxy settings	see page 217
dsd debug recycling	Display/modify HTTPPI recycling settings	see page 218
dsd debug stats	Display/clear DSD framework and module statistics	see page 219
dsd intercept config	Display/modify HTTP Intercept configuration	see page 220
dsd syslog config	Display/modify HTTPPI logging configuration	see page 221
dsd syslog list	Display HTTPPI log file	see page 222
dsd urlfilter config	Display/modify url filtering configuration	see page 223
dsd urlfilter rule add	Add a rule	see page 224
dsd urlfilter rule delete	Remove a rule	see page 225
dsd urlfilter rule flush	Remove all current rules	see page 226
dsd urlfilter rule list	Display a list of current rules	see page 227
dsd urlfilter rule modify	Modify an existing rule	see page 228

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 = <ip-address>]
                [port = <{at-echo|at-nbp|at-rtmp|at-zis|auth|
                bgp|biff|bootpc|bootps|chargen|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|qotd|
                realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                sunrpc|syslog|sysstat|talk|telnet|...} 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 HTTPPI 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 = <ip-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

dyndns Commands

dyndns add	Add a dynamic DNS client.	see page 230
dyndns delete	Delete a dynamic DNS client.	see page 231
dyndns flush	Delete all dynamic DNS clients.	see page 232
dyndns host add	Add a fully qualified host name	see page 233
dyndns host delete	Delete a host name	see page 234
dyndns host flush	Delete all host names	see page 235
dyndns host list	List all host names	see page 236
dyndns list	List all dynamic DNS clients.	see page 237
dyndns modify	Modify a dynamic DNS client.	see page 238
dyndns service list	List all dynamic DNS services	see page 239
dyndns service modify	Modify specific dynamic DNS service settings	see page 240

dyndns add

Add a dynamic DNS client.

SYNTAX:

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

where:

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

dyndns Commands

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 = <{loop|Internet|LocalNetwork}>]
    [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 = <{at-echo|at-nbp|at-rtmp|at-zis|auth|
                           bgp|biff|bootpc|bootps|chargen|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|...} 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

env flush	Remove all non-system environment variables.	see page 242
env get	Gets an environment variable.	see page 243
env list	List all environment variables.	see page 244
env set	Sets an environment variable.	see page 245
env unset	Deletes an environment variable.	see page 246

env flush

Remove all non-system environment variables.

env Commands

env get

Gets an environment variable.

SYNTAX:

```
env get var = <{_ETHERNET|_COMPANY_NAME|_COMPANY_URL|_PROD_NAME|_PROD_URL|_PROD_SERIAL_NBR|_FII|_BUILD|_BOOTLOADER_VERSION|_BUILDVARIANT|_MODEM_ACCESS_CODE|__SEC_MODEM_ACCESS_CODE|_OUI|_CUSTOVARIANT|_PHYSLAYERTYPE|_BUILDNAME|_PRL|_FIA|_BOARD_NAME|_COMPANY_ID|_COPYRIGHT|_TPVERSION|_PROD_ID|_PROD_FRIENDLY_NAME|_VARIANT_ID|_VARIANT_FRIENDLY_NAME|_MACADDR|_LMACADDR|_WL0_WEPKEY_SERIAL|_WL0_WPAKEY_SERIAL|_WL0_SSID_SERIAL|_WL0_SSID_PREFIX|_WL_VERSION}>
```

where:

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

env list

List all environment variables.

env Commands

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 = <{_ETHERNET|_COMPANY_NAME|_COMPANY_URL|_PROD_NAME|_PROD_URL|_PROD_SERIAL_NBR|_FII|_BUILD|_BOOTLOADER_VERSION|_BUILDVARIANT|_MODEM_ACCESS_CODE|__SEC_MODEM_ACCESS_CODE|_OUI|_CUSTOVARIANT|_PHYSLAYERTYPE|_BUILDNAME|_PRL|_FIA|_BOARD_NAME|_COMPANY_ID|_COPYRIGHT|_TPVERSION|_PROD_ID|_PROD_FRIENDLY_NAME|_VARIANT_ID|_VARIANT_FRIENDLY_NAME|_MACADDR|_LMACADDR|_WL0_WEPKEY_SERIAL|_WL0_WPAKEY_SERIAL|_WL0_SSID_SERIAL|_WL0_SSID_PREFIX|_WL_VERSION}>
```

where:

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

eth Commands

eth bridge add	Add a new bridge instance.	see page 251
eth bridge clear	Clear bridge statistics.	see page 252
eth bridge config	Modify/Display the bridge configuration settings.	see page 253
eth bridge delete	Delete a bridge instance.	see page 254
eth bridge dynvlan actlist	Display the active MAC entries for the dynamic VLAN membership.	see page 255
eth bridge dynvlan add	Add a dynamic VLAN membership entry.	see page 256
eth bridge dynvlan config	Modify the dynamic VLAN membership configuration.	see page 257
eth bridge dynvlan delete	Delete a dynamic VLAN membership entry.	see page 258
eth bridge dynvlan flush	Flush all dynamic VLAN membership entries.	see page 259
eth bridge dynvlan list	Display a dynamic VLAN membership entry.	see page 260
eth bridge flush	Flush all bridge instances with their interfaces and properties.	see page 261
eth bridge ifadd	Add a new bridge interface.	see page 262
eth bridge ifattach	Attach a bridge interface.	see page 263
eth bridge ifconfig	Modify a bridge interface configuration.	see page 264
eth bridge ifdelete	Delete a bridge interface.	see page 266
eth bridge ifdetach	Detach a bridge interface.	see page 267
eth bridge ifflush	flush the bridge interfaces: detach/delete all interfaces.	see page 268
eth bridge iflist	Display the current bridge interfaces.	see page 269
eth bridge igmpsnooping clear	Clear snooping statistics.	see page 270
eth bridge igmpsnooping config	Configure bridge instance IGMP Snooping flags.	see page 271
eth bridge igmpsnooping ifconfig	Configure bridge interface IGMP snooping flags and mode.	see page 272
eth bridge igmpsnooping iflist	Display bridge interface IGMP status.	see page 273

eth bridge igmpsnooping list	Display bridge instance snooped groups.	see page 274
eth bridge list	Display the current bridge instances.	see page 275
eth bridge macadd	Add a static MAC address to a bridge interface.	see page 276
eth bridge macdelete	Remove a MAC address from the database.	see page 277
eth bridge maclist	Display the MAC address database.	see page 278
eth bridge rule add	Add a new constraint to the VLAN learning system.	see page 279
eth bridge rule delete	Delete a constraint from the VLAN learning system.	see page 280
eth bridge rule flush	Flush all constraints from the VLAN learning system.	see page 281
eth bridge rule list	Display all constraints from the VLAN learning system.	see page 282
eth bridge select	Select the default bridge for configuring interfaces from (if not setting	see page 283
eth bridge unknownvlan ifadd	Add bridge interface to unknown 'VLAN'.	see page 284
eth bridge unknownvlan ifconfig	Modify bridge interface from unknown 'VLAN'.	see page 285
eth bridge unknownvlan ifdelete	Delete bridge interface from unknown 'VLAN'.	see page 286
eth bridge unknownvlan iflist	Display all interfaces of the unknown 'VLAN'.	see page 287
eth bridge vlan ifadd	Add bridge interface to virtual LAN.	see page 288
eth bridge vlan ifconfig	Modify bridge interface from virtual LAN.	see page 289
eth bridge vlan ifdelete	Delete bridge interface from virtual LAN.	see page 290
eth bridge vlan iflist	Display all virtual LAN's.	see page 291
eth bridge xtratag add	Add an extra tag mapping entry.	see page 292
eth bridge xtratag config	Configure an extra tag mapping entry.	see page 293
eth bridge xtratag delete	Delete an extra tag mapping entry.	see page 294
eth bridge xtratag flush	Flush all extra tag mapping entries.	see page 295

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eth bridge xtrntag list	Display all extra tag mapping entries.	see page 296
eth device ifconfig	Configure ethernet interface.	see page 297
eth device iflist	Show status of ethernet interfaces.	see page 298
eth flush	Flush all ETH interfaces.	see page 299
eth ifadd	Create a new ETH interface.	see page 300
eth ifattach	Attach an ETH interface.	see page 301
eth ifconfig	Modify an ETH interface.	see page 302
eth ifdelete	Delete an ETH interface.	see page 303
eth ifdetach	Detach an ETH interface.	see page 304
eth iflist	Display the ETH interfaces.	see page 305
eth switch group flush	To set all ports to the default settings (all ports in group 0).	see page 306
eth switch group list	List all configured groups.	see page 307
eth switch group move	Move a specified port to a specified group.	see page 308
eth switch info	Display switch capabilities	see page 309
eth switch mirror capture	Define the specified port to be the Mirror Capture Port.	see page 310
eth switch mirror egress	Enable or disable the specified port to be a Transmitted Port Mirroring.	see page 311
eth switch mirror ingress	Enable or disable the specified port to be a Received Port Mirroring.	see page 312
eth switch qos config	Configure common qos parameters.	see page 313
eth switch qos ifconfig	Configure per port qos parameters.	see page 314
eth switch qos list	Display qos configuration.	see page 315
eth switch qos weights	Configure the queue weights.	see page 316
eth switch shaper config	Configure common ingress shaper parameters.	see page 317
eth switch shaper ifconfig	Configure per port shaper parameters.	see page 318
eth switch shaper iflist	Display shaper configuration per port.	see page 319
eth switch share add	Add a port to be shared.	see page 320
eth switch share delete	Delete a shared port.	see page 321

eth switch share list	Display shared ports.	see page 322
eth switch storm ifconfig	Configure per port storm control parameters.	see page 323
eth switch storm iflist	Display storm control configuration per port.	see page 324
eth vlan add	Add a new virtual LAN.	see page 325
eth vlan delete	Delete a virtual LAN.	see page 326
eth vlan flush	Flush all virtual LAN's.	see page 327
eth vlan list	Display all virtual LAN's.	see page 328

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}>]
                           [filter = <{none|no_WAN_broadcast}>]
                           [vlan = <{disabled|enabled}>]
                           [precedencemap = <string>]
```

where:

brname	The name of a bridge instance.	OPTIONAL
age	The lifetime (in seconds) of a dynamically learned MAC address.	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
precedencemap	The IP QoS precedence mapping table.	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}>
                             [remvlan = <{default}>]
```

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
remvlan	The VLAN that will be removed from the bridge interface.	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 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}>
                    [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}>
                    [wan = <{disabled|enabled}>
                    [igmpsnooping = <{disabled|enabled}>
                    [priotransparent = <{disabled|enabled}>
                    [bpdufiltering = <{disabled|enabled}>
                    [xtrntagging = <{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

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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	Enable/disable dynamic VLAN membership checking for this interface.	OPTIONAL
wan	Enable/disable WAN for this interface.	OPTIONAL
igmpsnooping	Enable/disable IGMP 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}>
```

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}>
```

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}>]
```

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}>]
```

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}>]]>
```

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

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}>
                        [portmode = <{Host|Router|Auto}>
                        [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}>]
```

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 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}>
                  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 rule add

Add a new constraint to the VLAN learning system.

SYNTAX:

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

where:

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          index = <number{0-32}>
```

where:

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.

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}>
                              [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}>
                             [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}>
```

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      name = <{default}>
                           intf = <{OBC|ethport1|ethport2|ethport3|
                           ethport4|WLAN}>
                           [untagged = <{disabled|enabled}>]
```

where:

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      name = <{default}>
                              intf = <{OBC|ethport1|ethport2|ethport3|
                              ethport4|WLAN}>
                              untagged = <{disabled|enabled}>
```

where:

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      name = <{default}>
                              intf = <{OBC|ethport1|ethport2|ethport3|
                              ethport4|WLAN}>
```

where:

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.

eth bridge xtratag add

Add an extra tag mapping entry.

SYNTAX:

```
eth bridge xtratag add      [brname = <{bridge}>
                           intf = <{OBC|ethport1|ethport2|ethport3|
                           ethport4|WLAN}>
                           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}>
                               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}>
                               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 ifconfig

Configure ethernet interface.

SYNTAX:

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

where:

intf	The name of a physical interface.	REQUIRED
type	The ethernet type.	OPTIONAL
state	The interface state.	OPTIONAL

eth device iflist

Show status of ethernet interfaces.

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}>
                    [dest = <{bridge|ethoa_8_35}>]
                    [retry = <number{0-65535}>]
                    [wan = <{disabled|enabled}>]
                    [priotag = <{disabled|enabled}>]
                    [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
vlan	The VLAN for this ETH interface.	OPTIONAL

eth ifdelete

Delete an ETH interface.

SYNTAX:

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

where:

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

eth ifdetach

Detach an ETH interface.

SYNTAX:

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

where:

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

eth iflist

Display the ETH interfaces.

SYNTAX:

```
eth iflist [intf = <{ethoa_8_35}>
```

where:

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

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{0-3}>
                           port = <number{1-4}>
```

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{1-4}>
```

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{1-4}>
                               [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{1-4}>
                               [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}>]]>
```

where:

state	Enable/disable QoS.	REQUIRED
nbrOfQueues	Number of queues.	OPTIONAL
realtime	Enable/disable realtime.	OPTIONAL

eth switch qos ifconfig

Configure per port qos parameters.

SYNTAX:

```
eth switch qos ifconfig      port = <number{1-4}>
                             mode = <{none|802.1p|high|diffserv}>
                             [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}>]
```

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

eth switch shaper ifconfig

Configure per port shaper parameters.

SYNTAX:

```
eth switch shaper ifconfig      port = <number{1-4}>
                                ingress = <{enabled|disabled}>
                                shaper = <number{0--1}>
                                [state = <{enabled|disabled}>]
                                [speed = <number{64000-100000000}>]
                                [burstsize = <{}>]
```

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{1-4}>
                          shared = <number{1-4}>
```

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{1-4}>
                             shared = <number{1-4}>
```

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{1-4}>
                                [state = <{enabled|disabled}>]
                                [rate = <{100|200|300|400}>]
                                [burstsize = <number{2-8}>]
                                [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}>
                     [addrule = <{disabled|enabled}>]
```

where:

name	The new VLAN name.	REQUIRED
vid	The new VLAN id.	REQUIRED
addrule	Add the default bridge constraint.	OPTIONAL

eth vlan delete

Delete a virtual LAN.

SYNTAX:

```
eth vlan delete name = <{default}>
```

where:

name	The VLAN name.	REQUIRED
------	----------------	----------

eth vlan flush

Flush all virtual LAN's.

eth vlan list

Display all virtual LAN's.

exit Command

exit Command

Exits this shell.

expr Commands

expr add	Add an expression.	see page 332
expr delete	Delete an expression.	see page 335
expr flush	Flush all expressions.	see page 336
expr list	List expressions.	see page 337
expr modify	Modify an expression.	see page 338

expr add

Add an expression.

SYNTAX:

```
expr add name = <{wan|local|lan|tunnel|dmz|guest|
private|ssdp_ip|mdap_ip|icmp|igmp|imaps|pop2|
pop3|pop3s|smtp|ssh|dns|nntp|ipsec|esp|ah|
ike|DiffServ|sip|h323|dhcp|rtsp|ssdp_serv|
mdap_serv|syslog}>
[type = <{intf|ip|serv|mac}>]
mac [!] = <hardware-address>
addr [!] = <ip-range>
[mask [= <ip-mask(dotted or cidr)>]
[intf [!] = <{loop|Internet|LocalNetwork}>]
[intfgroup [!] = <{wan|local|lan|tunnel|dmz|
guest} or number]>
[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|igmp|ipinip|tcp|udp|ah|
esp|ipcomp} or number]>
[srcport [!] = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
[srcportend = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
[dstport [!] = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
[dstportend = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
[icmptype [!] = <{echo-reply|destination-
unreachable|source-quench|redirect|exceeded|
parameter-problems|timestamp-request|
timestamp-reply|information-request|
information-reply|address-mask-request|
address-mask-reply} or number]>
[icmpcode [!] = <number{0-15}>>
[icmpcodeend = <number{0-15}>>

```

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 source 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
icmptype [!]	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

expr Commands

expr delete

Delete an expression.

SYNTAX:

```
expr delete name = <{wan|local|lan|tunnel|dmz|guest|private|ssdp_ip|mdap_ip|icmp|igmp|imaps|pop2|pop3|pop3s|smtp|ssh|dns|nntp|ipsec|esp|ah|ike|DiffServ|sip|h323|dhcp|rtsp|ssdp_serv|mdap_serv|syslog}> [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 Commands

expr list

List expressions.

SYNTAX:

```
expr list [name = <{_intf_0|_intf_1|_intf_2|DHCP-  
R_if_0|wan|local|lan|tunnel|dmz|TELNET_if_0|  
DNS-S_if_0|PING_RESPONDER_if_0|MDAP_if_0|  
PPTPD_if_0|PPTPGRE_if_0|_addr_127_0_0_1|  
_addr_10_0_0_138|_addr_192_168_1_254|private|  
ssdp_ip|mdap_ip|DHCP-R_sv_0|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|DiffServ|sip|  
h323|dhcp|rtsp|ssdp_serv|mdap_serv|syslog|  
HTTPI_sv_0|SSDP_sv_0}]>  
[type = <{intf|ip|serv|mac}]>  
[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|
private|ssdp_ip|mdap_ip|icmp|igmp|imaps|pop2|
pop3|pop3s|smtp|ssh|dns|nntp|ipsec|esp|ah|
ike|DiffServ|sip|h323|dhcp|rtsp|ssdp_serv|
mdap_serv|syslog}>
[type = <{intf|ip|serv|mac}>]
index = <number>
mac [!] = <hardware-address>
addr [!] = <ip-range>
[mask [= <ip-mask(dotted or cidr)>]
[intf [!] = <{loop|Internet|LocalNetwork}>]
[intfgroup [!] = <{wan|local|lan|tunnel|dmz|
guest} or number]>
[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|igmp|ipinip|tcp|udp|ah|
esp|ipcomp} or number]>
[srcport [!] = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
[srcportend = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
```

expr Commands

```
[dstport [!] = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
[dstportend = <{at-echo|at-nbp|at-rtmp|at-
zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtnet|rtsp|sip|
smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|sysstat|talk|...}or
number]>
[icmptype [!] = <{echo-reply|destination-
unreachable|source-quench|redirect|exceeded|
parameter-problems|timestamp-request|
timestamp-reply|information-request|
information-reply|address-mask-request|
address-mask-reply} or number]>
[icmpcode [!] = <number{0-15}>
[icmpcodeend = <number{0-15}>
```

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 source 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
icmptype [!]	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

firewall Commands

firewall chain add	Add a chain.	see page 342
firewall chain delete	Delete a chain.	see page 343
firewall chain flush	Flush all chains.	see page 344
firewall chain list	Display a list of chains.	see page 345
firewall clear	Clear firewall configuration.	see page 346
firewall config	Display/Modify firewall configuration.	see page 347
firewall debug clear	Clear firewall statistics.	see page 348
firewall debug stats	Display firewall statistics.	see page 349
firewall level add	Add a new security level.	see page 350
firewall level delete	Delete a security level.	see page 351
firewall level flush	Flush security level configuration.	see page 352
firewall level list	List all security levels.	see page 353
firewall level modify	Modify a security level.	see page 354
firewall level set	Set/Display active security level.	see page 355
firewall list	Display firewall configuration.	see page 356
firewall rule add	Add a rule.	see page 357
firewall rule delete	Delete a rule.	see page 359
firewall rule flush	Flush all rules.	see page 360
firewall rule list	Display a list of rules.	see page 361
firewall rule modify	Modify a rule.	see page 362

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 Commands

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 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 name>
```

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 name>
                          [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 name>]
```

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 Commands

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 [!] = <{private|ssdp_ip|mdap_ip}>]
                           [dstintf [!] = <{wan|local|lan|tunnel|dmz|
                           guest}>]
                           [dstip [!] = <{private|ssdp_ip|mdap_ip}>]
                           [serv [!] = <{icmp|igmp|ftp|telnet|http|
                           httpproxy|https|RPC|NBT|SMB|imap|esp|ah|
                           ike|DiffServ|sip|h323|dhcp|rtsp|ssdp_serv|
                           mdap_serv|syslog}>]
                           [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

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 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>
                              [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
log	Disable/Enable logging when this rule applies.	OPTIONAL

firewall Commands

state	Disable/Enable this rule.	OPTIONAL
action	The action to be taken when this rule applies ('link' when clink is used).	OPTIONAL

grp Commands

grp config	Set the grp configuration settings.	see page 366
grp flush	Flush grp interface settings and parameters.	see page 367
grp rip config	Set the RIP configuration settings.	see page 368
grp rip flush	Flush RIP interface settings and global parameters.	see page 369
grp rip ifconfig	Configure a RIP interface.	see page 370
grp rip show	Show the RIP settings and the routes in the RIP database.	see page 371
grp rtlist	Show the current routes in the grp routing table.	see page 372

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 = <ip-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

help Command

Displays this help information

hostmgr Commands

hostmgr Commands

hostmgr add	Add host device info to hostmgr	see page 376
hostmgr clear	Remove all hosts from list	see page 377
hostmgr config	Config hostmgr parameters	see page 378
hostmgr delete	Delete host device info from hostmgr	see page 379
hostmgr flush	Flushes hostmgr configuration (i.e. clean & to defaults)	see page 380
hostmgr list	List all host devices	see page 381

hostmgr add

Add host device info to hostmgr

SYNTAX:

```
hostmgr add mac_addr = <hardware-address>
            [ip_addr = <ip-address>]
            [name = <string>]
            [type = <{generic_device|desktop_computer|
laptop_computer|set_top_box|pda|
gaming_console|phone|mobile_phone|printer|
mass_storage_device}>]
            [ipintf = <{loop|Internet|LocalNetwork}>]
            [ethintf = <{bridge|RELAY|ethoa_8_35}>]
            [physintf = <{ethif1|ethif2|ethif3|ethif4|
wlif1}>]
```

where:

mac_addr	Host MAC address	REQUIRED
ip_addr	Host IP address	OPTIONAL
name	host name	OPTIONAL
type	host type	OPTIONAL
ipintf	IP interface name.	OPTIONAL
ethintf	Ethernet interface name.	OPTIONAL
physintf	Physical interface name.	OPTIONAL

hostmgr clear

Remove all hosts from list

hostmgr config

Config hostmgr parameters

SYNTAX:

```
hostmgr config [state = <{disabled|enabled}>
               [scantime = <number{10-600}>
               [autosave = <{disabled|enabled}>]]>
               [trace = <{disabled|enabled}>]]>
```

where:

state	Enable/disable hostmgr daemon	OPTIONAL
scantime	Time between two scans (sec)	OPTIONAL
autosave	Enable/disable automatic saves to flash	OPTIONAL
trace	Enable/disable hostmgr traces	OPTIONAL

hostmgr Commands

hostmgr delete

Delete host device info from hostmgr

SYNTAX:

```
hostmgr delete mac_addr = <hardware-address>
```

where:

mac_addr	Host MAC address	REQUIRED
----------	------------------	----------

hostmgr flush

Flushes hostmgr configuration (i.e. clean & to defaults)

hostmgr Commands

hostmgr list

List all host devices

SYNTAX:

```
hostmgr list [expand = <{disabled|enabled}>]
```

where:

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

ids Commands

ids clear	Clear IDS statistics.	see page 384
ids config	Display/Modify IDS configuration.	see page 385
ids parser list	Display ids parser configuration.	see page 386
ids parser modify	Modify ids parser configuration.	see page 387
ids pattern clear	Reset pattern tracker.	see page 388
ids pattern list	Display patterns in pattern tracker.	see page 389
ids pattern stats	Display pattern tracker statistics.	see page 390
ids signature list	Display ids signature configuration.	see page 391
ids signature modify	Modify ids signature configuration.	see page 392
ids threshold clear	Reset IDS thresholds.	see page 393
ids threshold list	Display IDS thresholds.	see page 394
ids threshold modify	Modify IDS threshold.	see page 395

ids clear

Clear IDS statistics.

ids config

Display/Modify IDS configuration.

SYNTAX:

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

where:

state	Enable/Disable ids checks.	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}]>
```

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|]>
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

igmp host config	Display/Modify global IGMP configuration.	see page 398
igmp host debug clear	Clear IGMP statistics.	see page 399
igmp host debug stats	Print IGMP statistics.	see page 400
igmp host flush	Flush the IGMP settings.	see page 401
igmp host ifconfig	Configure an IGMP interface.	see page 402
igmp host iflist	Show the configuration of the IGMP interfaces.	see page 403
igmp host list	Show the IGMP groups.	see page 404
igmp proxy config	Configure the IGMP proxy.	see page 405
igmp proxy debug clear	Clear IGMP proxy statistics	see page 406
igmp proxy debug stats	Print IGMP proxy statistics	see page 407
igmp proxy debug traceconfig	Modify IGMP proxy trace configuration	see page 408
igmp proxy flush	Flush all IGMP proxy settings and learned groups	see page 409
igmp proxy grouplist	Show the learned groups on an IGMP proxy interface.	see page 410
igmp proxy ifconfig	Configure an IGMP proxy interface.	see page 411
igmp proxy iflist	Show the configuration of an IGMP proxy interface.	see page 412
igmp proxy mbslist	Show the IGMP proxy membership database (merge of all learned groups).	see page 413

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 Commands

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 Commands

igmp proxy config

Configure the IGMP proxy.

SYNTAX:

```
igmp proxy config [state = <{disabled|enabled}>]
                  [qi = <number{1-86400}>]
                  [qri = <number{1-86400}>]
                  [lmqi = <number{1-86400}>]
                  [rv = <number{2-10}>]
                  [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 Commands

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 Commands

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 Command

interface Command

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

ip arpadd	Add an entry to the ARP cache of a broadcast IP interface.	see page 419
ip arpdelete	Delete an ARP entry.	see page 420
ip arplist	Display the ARP cache.	see page 421
ip auto flush	Flushes autoIP interfaces.	see page 422
ip auto ifadd	Creates a new autoIP interface.	see page 423
ip auto ifattach	Select and assign a link-local address to an autoIP interface.	see page 424
ip auto ifconfig	Configures an autoIP interface.	see page 425
ip auto ifdelete	Deletes an existing autoIP interface.	see page 426
ip auto ifdetach	Release the link-local address for the given autoIP interface.	see page 427
ip auto iflist	Shows the autoIP interfaces.	see page 428
ip config	Display/Modify global IP stack configuration.	see page 429
ip debug httpprobe	Send HTTP probe to measure the round trip time taken to connect and access	see page 430
ip debug sendto	Send UDP packets.	see page 431
ip debug stats	Display statistics.	see page 432
ip debug traceconfig	Display/Modify IP stack trace configuration.	see page 433
ip flush	Flush all static IP parameters. Dynamic info (e.g. from PPP links) remains.	see page 434
ip ifadd	Create an IP interface.	see page 435
ip ifattach	Attach an IP interface.	see page 436
ip ifconfig	Modify an IP interface configuration.	see page 437
ip ifdelete	Delete an IP interface.	see page 438
ip ifdetach	Detach an IP interface.	see page 439
ip iflist	Display all IP interfaces.	see page 440
ip ifwait	Wait for a status change of an IP interface.	see page 441

ip ipadd	Assign an IP address to an IP interface.	see page 442
ip ipconfig	Modify an IP address configuration.	see page 443
ip ipdelete	Remove an IP address from an IP interface.	see page 444
ip iplist	Display all configured IP addresses.	see page 445
ip mcast flush	Flush the multicast routing table.	see page 446
ip mcast rtadd	Add a multicast route to the multicast routing table.	see page 447
ip mcast rtdelete	Delete a multicast route from the multicast routing table.	see page 448
ip mcast rtlist	Display the multicast routing table.	see page 449
ip rtadd	Add a route to the routing table.	see page 450
ip rtdelete	Delete a route from the routing table.	see page 451
ip rtlist	Display the routing table.	see page 452

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 flush

Flushes autoIP interfaces.

ip auto ifadd

Creates a new autoIP interface.

SYNTAX:

```
ip auto ifadd                intf = <{loop|Internet|LocalNetwork}>
                               [addr = <ip-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 = <ip-address>]
                          [poolstart = <ip-address>]
                          [poolend = <ip-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 config

Display/Modify global IP stack configuration.

SYNTAX:

```
ip config [forwarding = <{disabled|enabled}>]
          [redirects = <{disabled|enabled}>]
          [checkoptions = <{disabled|enabled|transparent}>]
          [netbroadcasts = <{disabled|enabled}>]
          [ttl = <number{0-255}>]
          [fraglimit = <number{1-1024}>]
          [defragmode = <{disabled|enabled}>]
          [addrcheck = <{off|own|static|dynamic}>]
          [mssclamping = <{disabled|enabled}>]
          [natloopback = <{disabled|enabled}>]
```

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
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

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 location identifying the HTTP server.	REQUIRED
version	The version of the HTTP Server.	OPTIONAL

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|udp|tcp|icmp}>
```

where:

proto	The protocol for which to display the statistics.	REQUIRED
-------	---	----------

ip debug traceconfig

Display/Modify IP stack trace configuration.

SYNTAX:

```
ip debug traceconfig      [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}>]  
                          [path = <{none|label|-telnet|-host|-broadcast|  
                          all}>]  
                          [mode = <{line|dump}>]  
                          [arp = <{none|all}>]
```

where:

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
path	Define the packet that will be path-traced.	OPTIONAL
mode	Packet dump method.	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}>
```

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 Commands

ip ifconfig

Modify an IP interface configuration.

SYNTAX:

```
ip ifconfig          intf = <{loop|Internet|LocalNetwork}>
                    [mtu = <number{68-65535}>]
                    [status = <{down|up}>]
                    [hwaddr = <hardware-address>]
                    [group = <{wan|local|lan|tunnel|dmz|guest} or
                    number]>
                    [linksensing = <{disabled|enabled}>]
                    [primary = <{disabled|enabled}>]
                    [mcastpromisc = <{disabled|enabled}>]
```

where:

intf	An IP interface name.	REQUIRED
mtu	The maximum packet size (including IP header) to use on this interface.	OPTIONAL
status	The administrative state of the interface.	OPTIONAL
hwaddr	The hardware address (e.g. Ethernet MAC address) of this interface.	OPTIONAL
group	The group this interface belongs to. Can be used by e.g. firewalling.	OPTIONAL
linksensing	The IP interface's awareness of link state transitions.	OPTIONAL
primary	Make the IP interface the primary interface.	OPTIONAL
mcastpromisc	Make the IP interface multicast promiscuous.	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 [expand = <{disabled|enabled}>]
```

where:

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

ip ifwait

Wait for a status change of an IP interface.

SYNTAX:

```
ip ifwait          intf = <{loop|Internet|LocalNetwork}>
                  [timeout = <number{1-600000}]]>
                  [adminstatus = <{down|up}]]>
                  [operstatus = <{down|up}]]>
                  [linkstatus = <{down|up}]]>
```

where:

intf	An IP interface name.	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-address>
                  [netmask = <ip-mask(dotted or cidr)>]
                  [pointopoint = <ip-address>]
                  [addroute = <{disabled|enabled}>]
```

where:

intf	The IP interface name.	REQUIRED
addr	The new IP address to add.	REQUIRED
netmask	The subnetmask associated with this address.	OPTIONAL
pointopoint	The remote address in case of a point-to-point link.	OPTIONAL
addroute	Add typical net/subnet routes automatically.	OPTIONAL

ip ipconfig

Modify an IP address configuration.

SYNTAX:

```
ip ipconfig                addr = <ip-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-address>
```

where:

addr	The IP address to delete.	REQUIRED
------	---------------------------	----------

ip iplist

Display all configured IP addresses.

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}>]
```

where:

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

ip rtadd

Add a route to the routing table.

SYNTAX:

```
ip rtadd          dst = <ip-address>
                  [dstmsk = <ip-mask(dotted or cidr)>
                  [label = <{None|DSCP|Interactive|Management|
Video|VoIP-RTP|VoIP-Signal|default}>]
                  [gateway = <ip-address>
                  [intf = <{loop|Internet|LocalNetwork}>]
                  [srcintf = <{loop|Internet|LocalNetwork}>]
                  [metric = <number{0-255}>]
```

where:

dst	The destination IP address(es) using this route. Supports ip/mask notation.	REQUIRED
dstmsk	The destination IP address mask.	OPTIONAL
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
metric	The metric for this route (weight factor).	OPTIONAL

ip rtdelete

Delete a route from the routing table.

SYNTAX:

```
ip rtdelete          dst = <ip-address>
                    [dstmsk = <ip-mask(dotted or cidr)>
                    [label = <{None|DSCP|Interactive|Management|
                    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. Supports ip/mask notation.	REQUIRED
dstmsk	The destination IP address mask.	OPTIONAL
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}>]
```

where:

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

ipqos Commands

ipqos config	Modify the IP QoS configuration for a given destination of an interface.	see page 454
ipqos ef config	Modify an IP QoS EF timer configuration for an interface.	see page 455
ipqos ef list	Display the IP QoS EF timers.	see page 456
ipqos ef stats	Display the IP QoS EF timer statistics.	see page 457
ipqos list	Display the IP QoS configuration.	see page 458
ipqos queue clear	Clear the IP QoS statistics.	see page 459
ipqos queue config	Modify the IP QoS subqueue configuration.	see page 460
ipqos queue list	Display the IP QoS subqueue configuration.	see page 461
ipqos queue stats	Display the IP QoS subqueue statistics.	see page 462

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}>]
              [weight1 = <number{1-97}>]
              [weight2 = <number{1-97}>]
              [weight3 = <number{1-97}>]
              [weight4 = <number{1-97}>]
              [maxpackets = <number{0-250}>]
              [maxbytes = <number{0-128}>]
```

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
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
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 mili 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 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}>
                  [propagate = <{disabled|enabled}>]
                  [ecnmarking = <{disabled|enabled}>]
                  [ackfiltering = <{disabled|enabled}>]
                  [maxpackets = <number{0-250}>]
                  [maxbytes = <number{0-128}>]
                  [respackets = <number{0-250}>]
                  [resbytes = <number{0-128}>]
                  [hold = <number>]
                  [markprob = <number{1-1000}>]
```

where:

dest	The destination of the interface. Typically, a phonebook entry.	REQUIRED
queue	The number of the subqueue.	REQUIRED
propagate	Propagate the packets in lower priority queue iso. dropping.	OPTIONAL
ecnmarking	Enable Explicit Congestion Notification for IP packets in this subqueue.	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

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

label Commands

label add	Add a label.	see page 464
label chain add	Add a chain.	see page 465
label chain delete	Delete a chain.	see page 466
label chain flush	Flush all chains.	see page 467
label chain list	Display a list of chains.	see page 468
label delete	Delete a label.	see page 469
label flush	Flush all label.	see page 470
label list	Display the labels.	see page 471
label modify	Modify a label configuration.	see page 472
label rule add	Add a rule.	see page 473
label rule delete	Delete a rule.	see page 474
label rule flush	Flush all rules.	see page 475
label rule list	Display a list of rules.	see page 476
label rule modify	Modify a rule.	see page 477

label add

Add a label.

SYNTAX:

```
label add name = <string>
```

where:

name	The name of a label to add.	REQUIRED
------	-----------------------------	----------

label Commands

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 Commands

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 Commands

label delete

Delete a label.

SYNTAX:

```
label delete name = <{DSCP|Interactive|Management|Video|  
VoIP-RTP|VoIP-Signal|default}>
```

where:

name	The name of a label.	REQUIRED
------	----------------------	----------

label flush

Flush all label.

label Commands

label list

Display the labels.

SYNTAX:

```
label list [name = <{DSCP|Interactive|Management|Video|VoIP-RTP|VoIP-Signal|default}>]
```

where:

name	The name of a label.	OPTIONAL
------	----------------------	----------

label modify

Modify a label configuration.

SYNTAX:

```
label modify name = <{DSCP|Interactive|Management|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 Commands

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 [!] = <{private|ssdp_ip|mdap_ip}>]
                        [dstip [!] = <{private|ssdp_ip|mdap_ip}>]
                        [serv [!] = <{icmp|igmp|ftp|telnet|http|
                        httpproxy|https|RPC|NBT|SMB|imap|esp|ah|
                        ike|DiffServ|sip|h323|dhcp|rtsp|ssdp_serv|
                        mdap_serv|syslog}>]
                        [log = <{disabled|enabled}>]
                        [state = <{disabled|enabled}>]
                        label = <{None|link|DSCP|Interactive|
                        Management|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
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 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 Commands

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>
                           [log = <{disabled|enabled}>]
                           [state = <{disabled|enabled}>]
                           [label = <{None|link|DSCP|Interactive|
Management|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
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

language config	Select a language.	see page 480
language delete	Delete one or all language archives.	see page 481
language list	List available languages archives.	see page 482

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 Commands

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.

mbus Commands

mbus client authenticate	Authenticate a session	see page 484
mbus client config	Modify client parameters	see page 485
mbus client exec	Execute mbus command	see page 486
mbus client register	Register cli client to mbus	see page 488
mbus client termsession	Terminate a session	see page 489
mbus client unregister	Unregister cli client from mbus	see page 490
mbus debug clearstats	Reset mbus statistics.	see page 491
mbus debug loadobjects	Load/sync object instances from plugins	see page 492
mbus debug stats	Display mbus statistics.	see page 493
mbus debug traceconfig	Modify mbus trace settings.	see page 494
mbus debug unloadobjects	Unload object instances	see page 495
mbus listcontexts	Display the context instances	see page 496
mbus listenums	Display the registered enumtypes	see page 497
mbus listobjects	Display the object instances	see page 498
mbus listsubscriptions	Display the subscription instances	see page 499
mbus listtypes	Display the registered objecttypes	see page 500
mbus pluginevent	Simulate event from plugin	see page 501
mbus unregister	Unregister a client/plugin context	see page 502

mbus client authenticate

Authenticate a session

SYNTAX:

```
mbus client authenticate      type = <{cleartext|md5|crypt|digest}>
                               username = <quoted string>
                               password = <password>
```

where:

type	Authentication type	REQUIRED
username	User name	REQUIRED
password	password	REQUIRED

mbus Commands

mbus client config

Modify client parameters

SYNTAX:

```
mbus client config [writelock = <{enabled|disabled}>
                   [wlgettimeout = <number>
                   [wlidletimeout = <number>
                   [path = <quoted string>
                   [type = <{indexpath|objidpath|keystspath}>
                   [id = <number>
```

where:

writelock	Get/release mbus writelock	OPTIONAL
wlgettimeout	Writelock get timeout in seconds (forever=-1, *default=nowait=0)	OPTIONAL
wlidletimeout	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
objidpath keystrpath uncommitted xref_localidx
xref_objid xref_keypath exact_depth
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_eventable|object_dynamic}>]
```

where:

Parameter	Description	Requirement
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)'. Possible operators are ==, !	OPTIONAL

mbus Commands

=, <, <=, >, >=, 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)'.

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

mbus client register

Register cli client to mbus

SYNTAX:

```
mbus client register [dmtree = <{igd|atomic|system}>
                    [type = <{indexpath|objidpath|keystpath}>
                    [dlink = <{local_ipc|remote_inet}>
                    [mbusd_addr = <quoted string>
                    [refresolv = <{disabled|enabled}>]
```

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

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 loadobjects

Load/sync object instances from plugins

SYNTAX:

```
mbus debug loadobjects      [dmtree = <{igd|atomic|system}>]
                             [path = <quoted string>]
                             [type = <{indexpath|objidpath|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 Commands

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 Commands

mbus debug unloadobjects

Unload object instances

SYNTAX:

```
mbus debug unloadobjects [dmtree = <{igd|atomic|system}>]
                          [path = <quoted string>]
                          [type = <{indexpath|objidpath|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 Commands

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|objidpath|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{0--2}>
                           type = <{addobj|delobj|updoobj}>
                           path = <quoted string>
                           [name = <quoted string>]
                           [value = <quoted string>]
                           [orivalue = <quoted string>]
```

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

mbus unregister

Unregister a client/plugin context

SYNTAX:

```
mbus unregister          id = <number>
```

where:

id	Select message-based client/plugin context id.	REQUIRED
----	--	----------

memm Commands

memm debug clearstats	Clear time statistics.	see page 504
memm debug lock stats	Display lock statistics.	see page 505
memm debug lock traceconfig	Modify lock trace settings.	see page 506
memm debug stats	Display memm time statistics.	see page 507
memm debug tag	(Un)tag memory manager objects.	see page 508
memm debug traceconfig	Modify memm trace settings.	see page 509
memm listobjects	Display objects.	see page 510
memm stats	Display memm statistics.	see page 511

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 = <string>]
```

where:

level	Select memm trace level (0-4).	OPTIONAL
name	application name filter for lock traces (empty displays all lock traces)	OPTIONAL

memm Commands

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 Commands

memm stats

Display memm statistics.

SYNTAX:

```
memm stats [name = <quoted string>
```

where:

name	Select typename(s) to list (supports partial typename)	OPTIONAL
------	---	----------

menu Command

menu Command

Displays menu

mlp Commands

mlp debug export	Export all scores.	see page 516
mlp debug stats	Display mlp statistics.	see page 517
mlp debug traceconfig	Modify mlp trace settings.	see page 518
mlp flush	Flush all mlp structures.	see page 519
mlp import	Import all scores.	see page 520
mlp privilege add	Add a privilege.	see page 521
mlp privilege addzone	Add a zone to a privilege.	see page 522
mlp privilege config	Modify the privilege.	see page 523
mlp privilege delete	Delete a privilege.	see page 524
mlp privilege list	Display the privileges.	see page 525
mlp privilege removezone	Remove a zone from a privilege.	see page 526
mlp role add	Add a role.	see page 527
mlp role addpriv	Add a privilege.	see page 528
mlp role config	Modify the role.	see page 529
mlp role delete	Delete a role.	see page 530
mlp role list	Display the roles.	see page 531
mlp role removepriv	Remove a privilege.	see page 532

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 [trace = <{disabled|enabled|full}>
```

where:

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|unsecure_connection|
Sensitve_file|...}>
```

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 Commands

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|unsecure_connection|
Sensitve_file|...}>
```

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 = <{Administrator|LAN_Admin|PowerUser|
                           root|SuperUser|TechnicalSupport|User|
                           WAN_Admin}>
                           access = <{anyaccess|AP1|AP2|AP3|AP4|AP5|AP6|
                           AP7|AP8|AP9}>
                           service = <{anyservice|SP1|SP10|SP11|SP12|
                           SP13|SP14|SP15|SP16|SP17|SP18|SP19|SP2|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

nat Commands

nat config	Modify global NAT configuration.	see page 534
nat flush	Flush current NAT configuration.	see page 535
nat ifconfig	Modify address translation on an IP interface.	see page 536
nat iflist	Display all interfaces.	see page 537
nat mapadd	Add an address mapping to a nat enabled interface.	see page 538
nat mapdelete	Delete an address mapping from a nat enabled interface.	see page 539
nat maplist	Display address mappings.	see page 540
nat tmpladd	Add an address mapping template.	see page 541
nat tmpldelete	Delete an address mapping template.	see page 543
nat tmplinst	Instantiate address mapping templates for a given dynamic address.	see page 544
nat tmplist	Display address mapping templates.	see page 545

nat config

Modify global NAT configuration.

SYNTAX:

```
nat config [trace = <{disabled|enabled}>]
```

where:

trace	Enable/disable traces.	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|gpp|gre|hmp|icmp|
igmp|pup|rdp|rsvp|tcp|udp|vines|xns-idp|6to4|
ipip} or number>]
                                           [outside_port = <port-range>]
                                           [inside_port = <port-range>]
                                           [mode = <{auto|inbound|outbound}>]
                                           [weight = <number{0-255}>]

```

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

nat Commands

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 Commands

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|ggp|gre|hmp|icmp|
            igmp|pup|rdp|rsvp|tcp|udp|vines|xns-idp|6to4|
            ipip} or number]>
            [outside_port = <port-range>
            [inside_port = <port-range>
            [mode = <{auto|inbound|outbound}>
            [weight = <number{0-255}>
```

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
--------	---	----------

nat tmpldelete

Delete an address mapping template.

SYNTAX:

```
nat tmpldelete          index = <number>
```

where:

index	The template index as listed by ':nat tmplist'.	REQUIRED
-------	---	----------

nat tmplinst

Instantiate address mapping templates for a given dynamic address.

SYNTAX:

```
nat tmplinst          intf = <{loop|Internet|LocalNetwork}>
                      addr_index = <ip-address>
                      dynamic_addr = <ip-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
--------	-------------------	----------

ping Command

ping Command

Send ICMP ECHO_REQUEST packets.

SYNTAX:

```
ping proto = <{ip|atm}>
      addr = <ip-address>
      dest = <{atm_pvc_8_35}>
      [count = <number{0-1000000}>]]>
      [size = <number{28-20028}>]]>
      [interval(ms) = <number{100-1000000}>]]>
      [DF-bit = <{disabled|enabled}>]]>
      [srcaddr = <ip-address>]]>
```

where:

proto	The interface type to be used.	REQUIRED
addr	The destination IP address.	REQUIRED
dest	The destination address for the request.	REQUIRED
count	The number of pings to send (0 is continuous ping).	OPTIONAL
size	The size of the ping datagram(s).	OPTIONAL
interval(ms)	The interval in milliseconds between packets.	OPTIONAL
DF-bit	Set the Don't Fragment bit (or leave unset) in the IP header of ping	OPTIONAL
srcaddr	The IP source address to use.	OPTIONAL

ppp Commands

ppp flush	Flush all PPP interfaces.	see page 550
ppp ifadd	Create a new PPP interface.	see page 551
ppp ifattach	Attach a PPP interface.	see page 552
ppp ifconfig	Modify a PPP interface.	see page 553
ppp ifdelete	Delete a PPP interface.	see page 556
ppp ifdetach	Detach a PPP interface.	see page 557
ppp iflist	Display the PPP interfaces.	see page 558
ppp ifscan	Scan a PPP interface for available interfaces.	see page 559
ppp relay flush	Remove all ethernet interfaces from the PPP relay agent list and terminate all	see page 560
ppp relay ifadd	Add an ethernet interface to the PPP relay list.	see page 561
ppp relay ifconfig	Modify an ethernet interface from the PPP relay agent list.	see page 562
ppp relay ifdelete	Delete an ethernet interface from the PPP relay agent list.	see page 563
ppp relay iflist	Display all ethernet interfaces added to the PPP relay agent list.	see page 564
ppp relay sesslist	Display all active PPP relay sessions.	see page 565
ppp rtadd	Add a route to the routing table when PPP link comes up.	see page 566
ppp rtdelete	Delete the route for a PPP link.	see page 567

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}>
                    [user = <string>
                    [password = <password>
                    [acname = <quoted string>
                    [servicename = <quoted string>
                    [pool = <{none}>]]>
                    [pcomp = <{disabled|enabled}>]]>
                    [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}>]]>
                    [echo = <{disabled|enabled}>]]>
                    [echotolerance = <number{1-100}>]]>
                    [mru = <number{293-8192}>]]>
                    [laddr = <ip-address>
                    [raddr = <ip-address>
                    [netmask = <ip-mask(dotted or cidr)>
                    [format = <{cidr|dotted|none}>]]>
                    [savepwd = <{disabled|enabled}>]]>
                    [demanddial = <{disabled|enabled}>]]>
                    [doddelay = <number{0-3600}>]]>
                    [primdns = <ip-address>
                    [secdns = <ip-address>
                    [dnsmetric = <number{0-100}>]]>
                    [idletime = <number{0-100000}>]]>
                    [idletrigger = <{RxTx|Rx|Tx}>]]>
                    [unnumbered = <{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
pool	Acquire IP subnet and assign it to a free DHCP pool.	OPTIONAL
pcomp	Try to negotiate PPP protocol compression (LCP PCOMP).	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
echo	Send LCP echo requests at regular intervals.	OPTIONAL
echotolerance	Number of failed LCP echo requests needed to trigger a link failure.	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
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 IP address as primary DNS server.	OPTIONAL
secdns	Negotiate IP address as secondary DNS server.	OPTIONAL

ppp Commands

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

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 = <{Internet}>]
```

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 = <{}>
```

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 = <ip-address>
                   [dstmsk = <ip-mask(dotted or cidr)>
                   [label = <{None|DSCP|Interactive|Management|
                   Video|VoIP-RTP|VoIP-Signal|default}>]
                   [src = <ip-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

pptp flush	Flushes the PPTP configuration.	see page 570
pptp ifadd	Adds a PPTP profile (backwards compatible with previous release, use profiles	see page 571
pptp list	Shows PPTP configuration.	see page 572
pptp profadd	Defines a new PPTP profile.	see page 573
pptp profdelete	Deletes a PPTP profile.	see page 574
pptp proflist	Lists PPTP profiles.	see page 575

pptp flush

Flushes the PPTP configuration.

pptp Commands

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 Commands

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 Commands

pptp proflist

Lists PPTP profiles.

ra Commands

ra config	Configure remote access parameters.	see page 578
ra start	Starts temporary mode.	see page 579
ra stop	Stops temporary mode.	see page 580

ra config

Configure remote access parameters.

SYNTAX:

```

ra config [state = <{disabled|enabled}>]
          [secure = <{enabled|disabled}>]
          [port = <number>]
          [timeout = <number>]
          [mode = <{Permanent|Temporary}>]
          [ipintf = <string>]
          [randompassword = <{enabled|disabled}>]
          [randomport = <{enabled|disabled}>]
          [group = <string>]
          [user = <string>]

```

where:

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.	OPTIONAL
user	The name of the xref to the user.	OPTIONAL

ra Commands

ra start

Starts temporary mode.

ra stop

Stops temporary mode.

saveall Command

saveall Command

Saves current configuration.

script Commands

script add	Add line to script.	see page 584
script delete	Delete complete script or line from script.	see page 585
script flush	Flush scripts.	see page 586
script list	List script.	see page 587
script run	Run script.	see page 588

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 Commands

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 Commands

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.q. a,b,c .	REQUIRED

service Commands

service host add	Add a service.	see page 590
service host assign	Assign a service to a host.	see page 591
service host delete	Delete a service.	see page 592
service host disable	Disable a service.	see page 593
service host flush	Flush all services.	see page 594
service host list	Display list of services.	see page 595
service host rule add	Create/define service portmap.	see page 596
service host rule delete	Delete a service portmap.	see page 598
service host stats	Service statistics.	see page 600
service host triggerlist	List all triggers.	see page 601
service system ifadd	Add an interface to the access list.	see page 602
service system ifdelete	Delete an interface from the access list.	see page 603
service system ipadd	Add an ip address (range) to the access list.	see page 604
service system ipdelete	Delete an ip address (range) from the access list.	see page 605
service system list	Display services.	see page 606
service system mapadd	Add a port map for a service.	see page 607
service system mapdelete	Delete a port map for a service.	see page 608
service system modify	Modify a service.	see page 609

service host add

Add a service.

SYNTAX:

```
service host add          name = <quoted string>  
                          [mode = <{server|client|custom}>]
```

where:

name	The name of the service.	REQUIRED
mode	server, client or custom service ?	OPTIONAL

service host assign

Assign a service to a host.

SYNTAX:

```
service host assign          name = <{ABC (Another Bittorent Client)|Age
                             of Empires|Age of Mythology|AIM BitTorrent|
                             Black and White|Call of Duty|Call of Duty
                             - UnitedOffensive|CarbonCopy32|Castle
                             Wolfenstein|Championship Manager 03-04|
                             Checkpoint FW1 VPN|Command and Conquer
                             Generals|Command and ConquerZero Hour|Counter
                             Strike|Cu-SeeMe Cornell|Cu-SeeMe White
                             Pine 3.1.2and 4.0|Dark Reign 2|Delta Force|
                             Destroyer Command|Diablo II|DirectConnect|
                             DirectX 7|DirectX 8|...}>
                             [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 delete

Delete a service.

SYNTAX:

```
service host delete          name = <{ABC (Another Bittorent Client)|Age  
of Empires|Age of Mythology|AIM BitTorrent|  
Black and White|Call of Duty|Call of Duty  
- UnitedOffensive|CarbonCopy32|Castle  
Wolfenstein|Championship Manager 03-04|  
Checkpoint FW1 VPN|Command and Conquer  
Generals|Command and ConquerZero Hour|Counter  
Strike|Cu-SeeMe Cornell|Cu-SeeMe White  
Pine 3.1.2and 4.0|Dark Reign 2|Delta Force|  
Destroyer Command|Diablo II|DirectConnect|  
DirectX 7|DirectX 8|...}>
```

where:

name	The name of the service.	REQUIRED
------	--------------------------	----------

service Commands

service host disable

Disable a service.

SYNTAX:

```
service host disable [name = <{ABC (Another Bittorent Client)|
Age of Empires|Age of Mythology|BearShare|
BitTorrent|Black and White|Call of Duty|
Call of Duty -United Offensive|CarbonCopy32|
Castle Wolfenstein|ChampionshipManager 03-04|
Checkpoint FW1 VPN|Command and Conquer
Generals|Command and Conquer Zero Hour|
Counter Strike|Cu-SeeMe Cornell|Cu-SeeMe White
Pine 3.1.2 and 4.0|Dark Reign 2|Delta Force|
DestroyerCommand|Diablo II|Direct Connect|
DirectX 7|DirectX 8|...}]>
```

where:

name	The name of the service.	OPTIONAL
------	--------------------------	----------

service host flush

Flush all services.

service Commands

service host list

Display list of services.

SYNTAX:

```
service host list [name = <{ABC (Another Bittorent Client)|
Age of Empires|Age of Mythology|BearShare|
BitTorrent|Black and White|Call of Duty|
Call of Duty -United Offensive|CarbonCopy32|
Castle Wolfenstein|ChampionshipManager 03-04|
Checkpoint FW1 VPN|Command and Conquer
Generals|Command and Conquer Zero Hour|
Counter Strike|Cu-SeeMe Cornell|Cu-SeeMe White
Pine 3.1.2 and 4.0|Dark Reign 2|Delta Force|
DestroyerCommand|Diablo II|Direct Connect|
DirectX 7|DirectX 8|...}]>
```

where:

name	The name of the service.	OPTIONAL
------	--------------------------	----------

service host rule add

Create/define service portmap.

SYNTAX:

```

service host rule add      name = <{ABC (Another Bittorent Client)|Age
                           of Empires|Age of Mythology|AIM BitTorrent|
                           Black and White|Call of Duty|Call of Duty
                           - UnitedOffensive|CarbonCopy32|Castle
                           Wolfenstein|Championship Manager 03-04|
                           Checkpoint FW1 VPN|Command and Conquer
                           Generals|Command and ConquerZero Hour|Counter
                           Strike|Cu-SeeMe Cornell|Cu-SeeMe White
                           Pine 3.1.2and 4.0|Dark Reign 2|Delta Force|
                           Destroyer Command|Diablo II|DirectConnect|
                           DirectX 7|DirectX 8|...}>
                           [protocol = <{any|tcp|udp}]>
                           [baseport = <{at-echo|at-nbp|at-rtmp|at-zis|
                           auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
                           smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                           net|sqlserv|sunrpc|syslog|sysstat|talk|...}
                           ornumber]>
                           portrange = <port-range>
                           [triggerport = <{at-echo|at-nbp|at-rtmp|at-
                           zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
                           smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net|
                           sqlserv|sunrpc|syslog|sysstat|talk|...} or
                           number]>
                           [triggerprotocol = <{any|tcp|udp}]>

```

where:

name	The name of the service.	REQUIRED
protocol	Protocol type.	OPTIONAL
baseport	Inbound base port.	OPTIONAL
portrange	The outbound portrange.	REQUIRED

service Commands

triggerport	Defines outbound trigger port.	OPTIONAL
triggerprotocol	Protocol of the trigger port.	OPTIONAL

service host rule delete

Delete a service portmap.

SYNTAX:

```
service host rule delete      name = <{ABC (Another Bittorent Client)|Age
                             of Empires|Age of Mythology|AIM BitTorrent|
                             Black and White|Call of Duty|Call of Duty
                             - UnitedOffensive|CarbonCopy32|Castle
                             Wolfenstein|Championship Manager 03-04|
                             Checkpoint FW1 VPN|Command and Conquer
                             Generals|Command and ConquerZero Hour|Counter
                             Strike|Cu-SeeMe Cornell|Cu-SeeMe White
                             Pine 3.1.2and 4.0|Dark Reign 2|Delta Force|
                             Destroyer Command|Diablo II|DirectConnect|
                             DirectX 7|DirectX 8|...}>
                             [protocol = <{any|tcp|udp}>]
                             [baseport = <{at-echo|at-nbp|at-rtmp|at-zis|
                             auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
                             smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                             net|sqlserv|sunrpc|syslog|sysstat|talk|...}
                             ornumber]>
                             portrange = <port-range>
                             [triggerport = <{at-echo|at-nbp|at-rtmp|at-
                             zis|auth|bgp|biff|bootpc|bootps|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|qotd|realaudio|rip|rtelnet|rtsp|sip|
                             smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net|
                             sqlserv|sunrpc|syslog|sysstat|talk|...} or
                             number]>
                             [triggerprotocol = <{any|tcp|udp}>]>
```

where:

name	The name of the service.	REQUIRED
protocol	Protocol type.	OPTIONAL
baseport	Inbound base port.	OPTIONAL
portrange	The outbound portrange.	REQUIRED

service Commands

triggerport	Defines outbound trigger port.	OPTIONAL
triggerprotocol	Protocol of the trigger port.	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|FTP|TELNET|RIP-Query|  
                               DNS-S|SNMP_AGENT|SSDP|MDAP|PING_RESPONDER}>  
                              group = <{wan|local|lan|tunnel|dmz|guest} or  
                                       number>
```

where:

name	The name of the service for this access list.	REQUIRED
group	The interface group for this access list.	REQUIRED

service system ifdelete

Delete an interface from the access list.

SYNTAX:

```
service system ifdelete          name = <{PPTP|HTTP|HTTPS|FTP|TELNET|RIP-Query|  
                                DNS-S|SNMP_AGENT|SSDP|MDAP|PING_RESPONDER}>  
                                group = <{wan|local|lan|tunnel|dmz|guest} or  
                                number>
```

where:

name	The name of the service for this access list.	REQUIRED
group	The interface group for this access list.	REQUIRED

service system ipadd

Add an ip address (range) to the access list.

SYNTAX:

```
service system ipadd          name = <{PPTP|HTTP|HTTPS|FTP|TELNET|RIP-Query|  
                               DNS-S|SNMP_AGENT|SSDP|MDAP|PING_RESPONDER}>  
                               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|FTP|TELNET|RIP-Query|  
                             DNS-S|SNMP_AGENT|SSDP|MDAP|PING_RESPONDER}>  
                             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 = <{PPTP|PPTPD|PPTPGRE|SNTP|
SLA_ICMP_PING|SLA_UDP_PING|HTTP|HTTPS|RAD|
Dynamic DNS|dyndns|statdns|custom|No-IP|DtDNS|
gnudip|DHCP-S|DHCP-R|SNMP_AGENT|SSDP|MDAP|
CWMP-C|CWMP-S|RAS|SRAS|IP_COMMANDS|ICMP_PING|
SENDTO|PING_RESPONDER|ICMP_TRACEROUTE|
UDP_TRACEROUTE|HTTPPROBE}]>
[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|HTTP|FTP|TELNET|DNS-
                           S|SNMP_AGENT|SSDP|MDAP}>
                           intf = <{loop|Internet|LocalNetwork}>
                           port = <{at-echo|at-nbp|at-rtmp|at-zis|auth|
                           bgp|biff|bootpc|bootps|chargen|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|...} 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|HTTP|FTP|TELNET|DNS-
                               S|SNMP_AGENT|SSDP|MDAP}>
                               intf = <{loop|Internet|LocalNetwork}>
                               port = <{at-echo|at-nbp|at-rtmp|at-zis|auth|
                               bgp|biff|bootpc|bootps|chargen|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|...} 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 Commands

service system modify

Modify a service.

SYNTAX:

```
service system modify      name = <{PPTP|PPTPD|PPTPGRE|SNTP|
                           SLA_ICMP_PING|SLA_UDP_PING|HTTP|HTTPS|RAD|
                           DHCP-S|DHCP-R|SNMP_AGENT|SSDP|MDAP|CWMP-C|
                           CWMP-S|RAS|SRAS|IP_COMMANDS|PING_RESPONDER}>
                           [state = <{disabled|enabled}>]
                           [port = <{at-echo|at-nbp|at-rtmp|at-zis|auth|
                           bgp|biff|bootpc|bootps|chargen|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|qotd|
                           realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                           snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                           sunrpc|syslog|sysstat|talk|telnet|...} or
                           number]>
                           [qoslabel = <{None|DSCP|Interactive|
                           Management|Video|VoIP-RTP|VoIP-Signal|
                           default}>]
                           [routelabel = <{None|DSCP|Interactive|
                           Management|Video|VoIP-RTP|VoIP-Signal|
                           default}>]
                           [srcintf = <{loop|Internet|LocalNetwork}>]
                           [log = <{disabled|enabled}>]
                           [forward = <{disabled|enabled}>]
                           [natpmweight = <number{0-255}>]
```

where:

name	The name of the service.	REQUIRED
state	Disable/Enable this service.	OPTIONAL
port	The port of the 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
natpmweight	The nat portmap weight for this service.	OPTIONAL

snmp Commands

snmp community add	Config an SNMP community string to allow snmp access over IP.	see page 612
snmp community delete	Delete an SNMP community string to prevent snmp access over IP.	see page 613
snmp community list	List all SNMP community strings in use for snmp access over IP.	see page 614
snmp community modify	Modify an SNMP community string to allow snmp access over IP.	see page 615
snmp config	Configure global SNMP parameters.	see page 616
snmp get	Get from supplied object identity. e.g. get objectid=.1.3.6.1.2.1.1.1.0	see page 617
snmp getnext	Get next from supplied object identity. e.g. getnext objectid=	see page 618
snmp ifadd	Create a new SNMP interface.	see page 619
snmp ifattach	Attach an SNMP interface.	see page 620
snmp ifconfig	Modify an SNMP interface.	see page 621
snmp ifdelete	Delete an SNMP interface.	see page 622
snmp ifdetach	Detach an SNMP interface.	see page 623
snmp iflist	Display the SNMP interfaces.	see page 624
snmp walk	Walk from supplied object identity. e.g. walk objectid=.1.3.6.1.2.1.1	see page 625

snmp community add

Config an SNMP community string to allow snmp access over IP.

SYNTAX:

```
snmp community add          securityname = <{RWCommunity|ROCommunity}>
                             communityname = <password>
```

where:

securityname	Configure access rights/restrictions control for the community name.	REQUIRED
communityname	Configure SNMP community name.	REQUIRED

snmp community delete

Delete an SNMP community string to prevent snmp access over IP.

SYNTAX:

```
snmp community delete securityname = <{RWCommunity|ROCommunity}>
```

where:

securityname	Access rights/restrictions control of the community name to be deleted.	REQUIRED
--------------	---	----------

snmp community list

List all SNMP community strings in use for snmp access over IP.

snmp Commands

snmp community modify

Modify an SNMP community string to allow snmp access over IP.

SYNTAX:

```
snmp community modify          securityname = <{RWCommunity|ROCommunity}>
                                communityname = <password>
```

where:

securityname	Configure access rights/restrictions control for the community name.	REQUIRED
communityname	Configure SNMP community name.	REQUIRED

snmp config

Configure global SNMP parameters.

SYNTAX:

```
snmp config [sysContact = <quoted string>]
            [sysName = <quoted string>]
            [sysLocation = <quoted string>]
```

where:

sysContact	SNMP System Contact	OPTIONAL
sysName	SNMP System Name	OPTIONAL
sysLocation	SNMP System Location	OPTIONAL

snmp Commands

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 sysDescription	OPTIONAL
----------	---	----------

snmp getnext

Get next from supplied object identity. e.g. getnext objectid=

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 Commands

snmp ifadd

Create a new SNMP interface.

SYNTAX:

```
snmp ifadd                               intf = <string>
                                          dest = <{loop|ethif1|ethif2|ethif3|ethif4|
                                          wlif1|ceoc|bridge|OBC|ethport1|Internet_ppp|
                                          Internet|LocalNetwork}>
```

where:

intf	The name for the new SNMP interface.	REQUIRED
dest	The destination interface for this SNMP interface.	REQUIRED

snmp ifattach

Attach an SNMP interface.

SYNTAX:

```
snmp ifattach          intf = <{loop|ethif1|ethif2|ethif3|ethif4|  
                        wlif1|ceoc|bridge|OBC|ethport1|Internet_ppp|  
                        Internet|LocalNetwork}>
```

where:

intf	The name of the SNMP interface.	REQUIRED
------	---------------------------------	----------

snmp Commands

snmp ifconfig

Modify an SNMP interface.

SYNTAX:

```
snmp ifconfig          intf = <{loop|ethif1|ethif2|ethif3|ethif4|  
                        wlif1|ceoc|bridge|OBC|ethport1|Internet_ppp|  
                        Internet|LocalNetwork}>  
                        [securityname = <{RWCommunity|ROCommunity}>]  
                        [communityname = <password>]
```

where:

intf	The name of the SNMP interface to configure.	REQUIRED
securityname	Configure access rights/restrictions control for the community name.	OPTIONAL
communityname	Configure SNMP community name.	OPTIONAL

snmp ifdelete

Delete an SNMP interface.

SYNTAX:

```
snmp ifdelete          intf = <{loop|ethif1|ethif2|ethif3|ethif4|  
                        wlif1|ceoc|bridge|OBC|ethport1|Internet_ppp|  
                        Internet|LocalNetwork}>
```

where:

intf	The name of the SNMP interface.	REQUIRED
------	---------------------------------	----------

snmp Commands

snmp ifdetach

Detach an SNMP interface.

SYNTAX:

```
snmp ifdetach          intf = <{loop|ethif1|ethif2|ethif3|ethif4|  
                        wlif1|ceoc|bridge|OBC|ethport1|Internet_ppp|  
                        Internet|LocalNetwork}>
```

where:

intf	The name of the SNMP interface.	REQUIRED
------	---------------------------------	----------

snmp iflist

Display the SNMP interfaces.

SYNTAX:

```
snmp iflist [intf = <{loop|ethif1|ethif2|ethif3|ethif4|  
wlif1|ceoc|bridge|OBC|ethport1|Internet_ppp|  
Internet|LocalNetwork}]>
```

where:

intf	The name of an SNMP interface.	OPTIONAL
------	--------------------------------	----------

snmp Commands

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

sntp add	Add NTP server	see page 628
sntp config	Modify/Display configuration	see page 629
sntp debug traceconfig	Modify SNTP client trace configuration	see page 630
sntp delete	Delete NTP server from list	see page 631
sntp flush	Flush NTP server list and SNTP client configuration	see page 632
sntp list	List the NTP servers	see page 633

sntp add

Add NTP server

SYNTAX:

```
sntp add [addr = <ip-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 Commands

sntp config

Modify/Display configuration

SYNTAX:

```
sntp config [state = <{enabled|disabled}>
            [poll = <number{1-10080}>
            [pollpresync = <number{1-60}>
```

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

sntp debug traceconfig

Modify SNTP client trace configuration

SYNTAX:

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

where:

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

sntp Commands

sntp delete

Delete NTP server from list

SYNTAX:

```
sntp delete [addr = <ip-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 Commands

sntp list

List the NTP servers

software Commands

software download	Download parameters.	see page 636
software upgrade	Reboots the modem to initiate the SW upgrade. New software available on a	see page 637
software version	Displays the software version.	see page 638

software download

Download parameters.

SYNTAX:

```
software download          filetype = <{firmware|configuration}>
                          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 the be used to authenticate to the download server.	OPTIONAL
filesize	Set the size of the file to be downloaded.	REQUIRED
targetfilename	Set the filename used to save the file on the modem.	OPTIONAL

software upgrade

Reboots the modem to initiate the SW upgrade. New software available on a

software version

Displays the software version.

system Commands

system config	Set or change system config parameters.	see page 640
system debug autosave	Autosave debugging commands	see page 641
system debug stats	Cpu and memory statistics	see page 642
system dst	Set daylight saving values	see page 643
system flush	Flush system configuration.	see page 645
system locale	Set/Get regional settings.	see page 646
system ra config	Configure Remote assistance params.	see page 647
system reboot	Reboot the modem.	see page 648
system reset	Reset to (factory or ISP) defaults: user specific settings will be cleared !	see page 649
system settime	Set/Get date, time, timezone, daylight savings time, uptime.	see page 650
system timedreboot	Set or change editing mode timed reboot	see page 651

system config

Set or change system config parameters.

SYNTAX:

```
system config [upnp = <{disabled|enabled}>]
               [tr64 = <{disabled|enabled}>]
               [mdap = <{disabled|enabled}>]
               [led = <{green|red|orange|flash|off}>]
               [resetbutton = <{disabled|enabled}>]
               [digestauth = <{disabled|enabled}>]
               [defaultconnection = <{loop|Internet|
               LocalNetwork}>]
               [autosave = <{enabled|disabled}>]
               [autosavedelay = <number{0-600}>]
```

where:

upnp	Enable/Disable upnp discovery	OPTIONAL
tr64	Enable/Disable TR-64 discovery	OPTIONAL
mdap	Enable/Disable mdap discovery	OPTIONAL
led	Set system LED color	OPTIONAL
resetbutton	Enable/Disable reset-to-factory-defaults pushbutton	OPTIONAL
digestauth	Enable/Disable HTTP digest authentication	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

system debug autosave

Autosave debugging commands

SYNTAX:

```
system debug autosave [trace = <{disabled|enabled}>
```

where:

trace	Enable/Disable autosave traces	OPTIONAL
-------	--------------------------------	----------

system debug stats

Cpu and memory statistics

SYNTAX:

```
system debug stats [reset = <{disabled|enabled}>]
```

where:

reset	Reset cpu statistics.	OPTIONAL
-------	-----------------------	----------

system dst

Set daylight saving values

SYNTAX:

```
system dst [status = <{Disable|Enable}>
           [mode = <{Absolute|Relative}>]
           [startdate = <dd/mm/yyyy>]
           [starttime = <hh:mm:ss>]
           [enddate = <dd/mm/yyyy>]
           [endtime = <hh:mm:ss>]
           [startweekday = <{Monday|Tuesday|Wednesday|
Thursday|Friday|Saturday|Sunday}>]
           [starthour = <number{0-23}>]
           [startweek = <number{1-5}>]
           [startmonth = <number{1-12}>]
           [endweekday = <{Monday|Tuesday|Wednesday|
Thursday|Friday|Saturday|Sunday}>]
           [endhour = <number{0-23}>]
           [endweek = <number{1-5}>]
           [endmonth = <number{1-12}>]
```

where:

status	Set daylight saving status	OPTIONAL
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 locale

Set/Get regional settings.

SYNTAX:

```
system locale [dec_symbol = <{,|.}>
               [group_symbol = <{.,}>
               [date_separator = <{/|-|.}>
               [date_format = <{iso|ddmmyyyy|ddmmyy|mmdyyy|
               mddy}>
               [time_format = <{iso|hmmss}>
               [datetime_format = <{iso|date+time|time
               +date}>
               [duration_format = <{dhmmss|hmmss}>
```

where:

dec_symbol	Set decimal symbol	OPTIONAL
group_symbol	Set digit grouping symbol	OPTIONAL
date_separator	Set date separator	OPTIONAL
date_format	Set date format	OPTIONAL
time_format	Set time format	OPTIONAL
datetime_format	Set date-time format	OPTIONAL
duration_format	Set duration format	OPTIONAL

system ra config

Configure Remote assistance params.

SYNTAX:

```
system ra config [secure = <{disabled|enabled}>]
                 [port = <number>]
                 [timeout = <number>]
```

where:

secure	Enable/Disable https.	OPTIONAL
port	Set destination port.	OPTIONAL
timeout	Set connection timeout in minutes.	OPTIONAL

system reboot

Reboot the modem.

system Commands

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 [time = <hh:mm:ss>  
[timezone = <( + or -)hh:mm>  
[daylightsaving = <{disabled|enabled}>]  
[geotimezonename = <quoted string>  
[rtc = <{disabled|enabled}>]
```

where:

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

systemlog Commands

systemlog flush	Flush all messages in syslog message buffer.	see page 654
systemlog send	Send messages to remote syslog server.	see page 655
systemlog show	Show messages in the syslog message buffer.	see page 656

systemlog flush

Flush all messages in syslog message buffer.

systemlog Commands

systemlog send

Send messages to remote syslog server.

SYNTAX:

```
systemlog 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 = <ip-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

systemlog show

Show messages in the syslog message buffer.

SYNTAX:

```
systemlog 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

tls Commands

tls acs-client cert add	Add a new certificate	see page 658
tls acs-client cert delete	Delete a certificate	see page 659
tls acs-client cert list	List certificates	see page 660
tls acs-client config	Display/modify tls settings	see page 661
tls https-server cert add	Add a new certificate	see page 662
tls https-server cert delete	Delete a certificate	see page 663
tls https-server cert list	List certificates	see page 664
tls https-server config	Display/modify tls settings	see page 665
tls self cert list	List certificates	see page 666

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 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

traceroute Command

traceroute Command

Send ICMP/UDP packets to trace the ip path.

SYNTAX:

```
traceroute          addr = <ip-address>
                   [count = <number{1-10}]]>
                   [size = <number{1-20000}]]>
                   [interval = <number{1000-60000}]]>
                   [maxhops = <number{1-255}]]>
                   [dstport = <number{1-65535}]]>
                   [maxfail = <number{0-255}]]>
                   [type = <{icmp|udp}]]>
                   [utime = <{disabled|enabled}]]>
```

where:

addr	The destination IP address.	REQUIRED
count	The number of times to reissue a traceroute request with the same time to live.	OPTIONAL
size	The size of the packet payload.	OPTIONAL
interval	The interval in milliseconds between packets.	OPTIONAL
maxhops	The upper limit on the number of routers through which a packet can pass.	OPTIONAL
dstport	The UDP destination port number to send to.	OPTIONAL
maxfail	The max number of consecutive timeouts allowed before terminating a traceroute request.	OPTIONAL
type	The type of traceroute packet(s).	OPTIONAL
utime	Display time in useconds.	OPTIONAL

upgrade Commands

upgrade config	Change the upgrade daemon configuration	see page 670
upgrade debug sesslist	Display the list of sessions	see page 671
upgrade debug traceconfig	Enable/disable upgrade daemon tracing	see page 672
upgrade profile add	Add a new file profile description	see page 673
upgrade profile delete	Delete a file profile description	see page 674
upgrade profile list	Display a list of the file profile descriptions	see page 675
upgrade profile modify	Modify a file profile description	see page 676
upgrade start	Start a new upgrade	see page 677

upgrade config

Change the upgrade daemon configuration

SYNTAX:

```
upgrade config [state = <{disabled|enabled}>]
               [protocol = <{tftp|ftp|http|https}>]
```

where:

state	The upgrade daemon state	OPTIONAL
protocol	The transfer protocol to be used for file download	OPTIONAL

upgrade debug sesslist

Display the list of sessions

upgrade debug traceconfig

Enable/disable upgrade daemon tracing

SYNTAX:

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

where:

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

upgrade Commands

upgrade profile add

Add a new file profile description

SYNTAX:

```
upgrade 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

upgrade profile delete

Delete a file profile description

SYNTAX:

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

where:

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

upgrade profile list

Display a list of the file profile descriptions

upgrade profile modify

Modify a file profile description

SYNTAX:

```
upgrade 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

upgrade Commands

upgrade start

Start a new upgrade

SYNTAX:

```
upgrade 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

upnp Commands

upnp config	Config upnp parameter(s)	see page 680
upnp flush	Flushes upnp config (i.e. to defaults)	see page 681
upnp list	List all registered devices	see page 682

upnp config

Config upnp parameter(s)

SYNTAX:

```
upnp config [maxage = <number{60-999999}>
             [writemode = <{full|natonly|readonly}>
             [safenat = <{disabled|enabled}>
             [preferredaddresses = <string>
```

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

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
---------	-----------------------------	----------

user Commands

user add	Add a user.	see page 684
user config	Modify the user.	see page 685
user delete	Delete a user.	see page 686
user flush	Flush the users.	see page 687
user list	Display the users.	see page 688
user rights	Display session rights.	see page 689

user add

Add a user.

SYNTAX:

```
user add          name = <string>
                  password = <password>
                  role = <>
                  [hash2 = <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
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 Commands

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 Commands

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}>
          [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.

wireless Commands

wireless debug stats	Transfer statistics	see page 693
wireless debug txpower	TX power override	see page 694
wireless ifconfig	Configures wireless settings.	see page 695
wireless macacl add	Add an ACL MAC entry	see page 696
wireless macacl config	Access Control List configuration	see page 697
wireless macacl delete	Delete an ACL MAC entry	see page 698
wireless macacl flush	Flushes ACL entries	see page 699
wireless macacl list	Shows a list of all configured ACL entries	see page 700
wireless macacl modify	Modify an ACL entry	see page 701
wireless macacl register	Start a registration process (only for register mode)	see page 702
wireless mssid ifadd	Add an extra ssid context	see page 703
wireless mssid ifattach	Attach a ssid context	see page 704
wireless mssid ifconfig	Configure a ssid context	see page 705
wireless mssid ifdelete	Delete a ssid context	see page 706
wireless mssid ifdetach	Detach a ssid context	see page 707
wireless mssid iflist	Multiple ssid configuration	see page 708
wireless multiuni add	add a multicast to unicast mapping	see page 709
wireless multiuni delete	delete all multicast mappings	see page 710
wireless multiuni flush	flush all multicast to unicast mappings	see page 711
wireless multiuni list	show configured multicast to unicast mappings	see page 712
wireless multiuni scanresults	display detected multicast mac addresses	see page 713
wireless qos apacconfig	configure AP EDCA parameters	see page 714
wireless qos config	configure QoS settings	see page 715
wireless qos staaconfig	configure STA EDCA parameters	see page 716
wireless reset	Reset Wireless interface settings to defaults	see page 717

wireless secmode config	Configure/Show the security mode.	see page 718
wireless secmode wep	Configure WEP settings.	see page 719
wireless secmode wpa-psk	Configure WPA-PSK settings.	see page 720
wireless stations list	List of the currently associated stations	see page 721
wireless wds add	add WDS station	see page 722
wireless wds config	WDS configuration parameters	see page 723
wireless wds delete	delete WDS station	see page 724
wireless wds flush	Flush all wds stations	see page 725
wireless wds list	list WDS stations	see page 726
wireless wds scanresults	scan all networks	see page 727

wireless debug stats

Transfer statistics

wireless debug txpower

TX power override

SYNTAX:

```
wireless debug txpower [txpwr = <number>]
```

where:

txpwr	TX power in milliwatt	OPTIONAL
-------	-----------------------	----------

wireless Commands

wireless ifconfig

Configures wireless settings.

SYNTAX:

```
wireless ifconfig [state = <{enabled|disabled}>
                  [channel = <{auto|1|2|3|4|5|6|7|8|9|10|11|12|
                  13}>
                  [ssid = <quoted string>
                  [any = <{enabled|disabled}>
                  [interop = <{802.11b|802.11b(legacy)/g|
                  802.11b/g|802.11g}>
                  [frameburst = <{disabled|enabled}>]]]]>
```

where:

state	Interface operational status of wireless access point	OPTIONAL
channel	Communication channel number	OPTIONAL
ssid	SSID	OPTIONAL
any	Make SSID public	OPTIONAL
interop	Interoperability mode	OPTIONAL
frameburst	Framebursting	OPTIONAL

wireless macacl add

Add an ACL MAC entry

SYNTAX:

```
wireless macacl add [ssid_id = <number{0-5}>]
                    hwaddr = <hardware-address>
                    permission = <{allow|deny}>
                    [name = <quoted string>]
```

where:

ssid_id	ssid id	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{0-5}>]
                             [control = <{lock|unlock|register}>]
                             [regtime = <number{15-3600}>]
```

where:

ssid_id	ssid id	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{0-5}>  
                               hwaddr = <hardware-address>
```

where:

ssid_id	ssid id	REQUIRED
hwaddr	hardware address of the ACL entry	REQUIRED

wireless macacl flush

Flushes ACL entries

SYNTAX:

```
wireless macacl flush      [ssid_id = <number{0-5}>]  
                          proceed = <{disabled|enabled}>
```

where:

ssid_id	ssid id	OPTIONAL
proceed	Confirmation required	REQUIRED

wireless macacl list

Shows a list of all configured ACL entries

SYNTAX:

```
wireless macacl list [ssid_id = <number{0-5}>]
```

where:

ssid_id	ssid id	OPTIONAL
---------	---------	----------

wireless macacl modify

Modify an ACL entry

SYNTAX:

```
wireless macacl modify      ssid_id = <number{0-5}>
                             hwaddr = <hardware-address>
                             [permission = <{allow|deny}>]
                             [name = <quoted string>]
```

where:

ssid_id	ssid id	REQUIRED
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          proceed = <{disabled|enabled}>
```

where:

proceed	Confirmation required	REQUIRED
---------	-----------------------	----------

wireless mssid ifadd

Add an extra ssid context

SYNTAX:

```
wireless mssid ifadd          ssid = <string>
```

where:

ssid	ssid	REQUIRED
------	------	----------

wireless mssid ifattach

Attach a ssid context

SYNTAX:

```
wireless mssid ifattach          ssid_id = <number{1-5}>
```

where:

ssid_id	ssid	REQUIRED
---------	------	----------

wireless mssid ifconfig

Configure a ssid context

SYNTAX:

```
wireless mssid ifconfig      ssid_id = <number{0-5}>
                             [ssid = <string>
                             [ap isolation = <{disabled|enabled}>]
                             [any = <{disabled|enabled}>]
                             [secmode = <{disable|wep|wpa-psk}>]
                             [WEPkey = <quoted string>]
                             [WPAPSKkey = <quoted string>]
                             [WPAPSKversion = <{WPA|WPA2|WPA+WPA2}>]
                             [addscript = <quoted string>]
                             [delscript = <quoted string>]
                             [trace = <{disabled|enabled}>]]>
```

where:

ssid_id	ssid id	REQUIRED
ssid	ssid	OPTIONAL
ap isolation	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
addscript	creation data interfaces	OPTIONAL
delscript	remove data interfaces	OPTIONAL
trace	security tracing	OPTIONAL

wireless mssid ifdelete

Delete a ssid context

SYNTAX:

```
wireless mssid ifdelete          ssid_id = <number{1-5}>
```

where:

ssid_id	ssid	REQUIRED
---------	------	----------

wireless mssid ifdetach

Detach a ssid context

SYNTAX:

```
wireless mssid ifdetach          ssid_id = <number{1-5}>
```

where:

ssid_id	ssid	REQUIRED
---------	------	----------

wireless mssid iflist

Multiple ssid configuration

SYNTAX:

```
wireless mssid iflist [ssid_id = <number{0-5}>]
```

where:

ssid_id	ssid	OPTIONAL
---------	------	----------

wireless multiuni add

add a multicast to unicast mapping

SYNTAX:

```
wireless multiuni add          multicast = <hardware-address>  
                               unicast = <hardware-address>
```

where:

multicast	Multicast MAC	REQUIRED
unicast	Unicast MAC	REQUIRED

wireless multiuni delete

delete all multicast mappings

SYNTAX:

```
wireless multiuni delete          multicast = <hardware-address>
```

where:

multicast	Multicast MAC	REQUIRED
-----------	---------------	----------

wireless multiuni flush

flush all multicast to unicast mappings

wireless multiuni list

show configured multicast to unicast mappings

wireless multiuni scanresults

display detected multicast mac addresses

SYNTAX:

```
wireless multiuni scanresults [rescan = <{no|yes}>]
```

where:

rescan	rescan for new multicast addresses	OPTIONAL
--------	------------------------------------	----------

wireless qos apacconfig

configure AP EDCA parameters

SYNTAX:

```
wireless qos apacconfig [class = <{AC_BE|AC_BK|AC_VI|AC_VO}>
                        [cwmax = <{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>
```

where:

class	AC class	OPTIONAL
cwmax	CWmax configuration	OPTIONAL
cwmin	CWmin configuration	OPTIONAL
aifsn	Aifsn configuration	OPTIONAL
txop	txoplimit [us] configuration	OPTIONAL

wireless qos config

configure QoS settings

SYNTAX:

```
wireless qos config [mode = <{disabled|wmm}>]
```

where:

mode	WMM active	OPTIONAL
------	------------	----------

wireless qos staaconfig

configure STA EDCA parameters

SYNTAX:

```
wireless qos staaconfig [class = <{AC_BE|AC_BK|AC_VI|AC_VO}>
                        [cwmax = <{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>
```

where:

class	AC class	OPTIONAL
cwmax	CWmax configuration	OPTIONAL
cwmin	CWmin configuration	OPTIONAL
aifsn	Aifsn configuration	OPTIONAL
txop	txoplimit [us] configuration	OPTIONAL

wireless reset

Reset Wireless interface settings to defaults

SYNTAX:

```
wireless reset          proceed = <{disabled|enabled}>
```

where:

proceed	Confirmation required	REQUIRED
---------	-----------------------	----------

wireless secmode config

Configure/Show the security mode.

SYNTAX:

```
wireless secmode config [mode = <{disable|wep|wpa-psk}>
```

where:

mode	security mode	OPTIONAL
------	---------------	----------

wireless secmode wep

Configure WEP settings.

SYNTAX:

```
wireless secmode wep [encryptionkey = <quoted string>
```

where:

encryptionkey	WEP key: expected format 5 or 13 ASCII characters, or 10 or 26 HEX digits.	OPTIONAL
---------------	--	----------

wireless secmode wpa-psk

Configure WPA-PSK settings.

SYNTAX:

```
wireless secmode wpa-psk [presharedkey = <quoted string>]
                          [version = <{WPA|WPA2|WPA+WPA2}>]
```

where:

presharedkey	WPA-PSK key: expected format 8 to 63 ASCII characters or 64 HEX digits.	OPTIONAL
version	wpa version	OPTIONAL

wireless stations list

List of the currently associated stations

SYNTAX:

```
wireless stations list [hwaddr = <hardware-address>]
                        [ssid_id = <number{0-5}>]
```

where:

hwaddr	The MAC address of station	OPTIONAL
ssid_id	Selected BSS	OPTIONAL

wireless wds add

add WDS station

SYNTAX:

```
wireless wds add          bssid = <hardware-address>  
                          [name = <quoted string>]
```

where:

bssid	The WDS bssid	REQUIRED
name	A user specified reference name	OPTIONAL

wireless wds config

WDS configuration parameters

SYNTAX:

```
wireless wds config [state = <{disabled|enabled}>
```

where:

state	WDS functionality	OPTIONAL
-------	-------------------	----------

wireless wds delete

delete WDS station

SYNTAX:

```
wireless wds delete          bssid = <hardware-address>
```

where:

bssid	The WDS bssid	REQUIRED
-------	---------------	----------

wireless wds flush

Flush all wds stations

wireless wds list

list WDS stations

wireless wds scanresults

scan all networks

SYNTAX:

```
wireless wds scanresults [rescan = <{disabled|enabled}>]
```

where:

rescan	perform a new scan	OPTIONAL
--------	--------------------	----------

xdsl Commands

xdsl config	Modify/Display dsl configuration	see page 730
xdsl debug bitloadinginfo	Displays # bits per tone	see page 731
xdsl debug deltconfig	Dual Ended Line Testing interface	see page 732
xdsl debug deltinfo	Dual Ended Line Test result display	see page 733
xdsl debug modemoptioninfo	The modem options bitmap display	see page 734
xdsl debug multimode	Config custom multimode	see page 735
xdsl debug traceconfig	Config the adsl tracelevel	see page 736
xdsl info	Displays status information about modem	see page 737
xdsl version	Display xdsl version information.	see page 738

xdsl config

Modify/Display dsl configuration

SYNTAX:

```
xdsl config [adslmultimode = <{adsl|adsl2|adsl2plus}>
            [detect-lop = <{disabled|enabled}>]
            [syslog = <{disabled|enabled}>]
```

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

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.

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