THOMSON
images & beyond

Thomson ST780 WL SIP Server
CLI Reference Guide R7.4

Thomson ST780 WL SIP Server

CLI Reference Guide R7.4

Trademarks

The following trademarks are used in this document:
> DECT is a trademark of ETSI.
> Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc.
> Ethernet™ is a trademark of Xerox Corporation.
> Wi-Fi® and the Wi-Fi logo are registered trademarks of the Wi-Fi Alliance. "Wi-Fi CERTIFIED", "Wi-Fi ZONE", "Wi-Fi Alliance", their respective logos and "Wi-Fi Protected Access" are trademarks of the Wi-Fi Alliance.
> UPnP™ is a certification mark of the UPnP™ Implementers Corporation.
> Microsoft®, MS-DOS®, Windows® and Windows NT® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
> Apple® and Mac OS® are registered trademarks of Apple Computer, Incorporated, registered in the United States and other countries.
> UNIX® is a registered trademark of UNIX System Laboratories, Incorporated.
> Adobe®, the Adobe logo, Acrobat and Acrobat Reader are trademarks or registered trademarks of Adobe Systems, Incorporated, registered in the United States and/or other countries.

Document Information

Status: v1.0
Reference: E-DOC-CTC-20071119-0011
Short Title: CLI Reference Guide ST780 WL R7.4 SIP Server (SWv7.4.2.4)

Contents:

dhcp Commands

Contents

eth Commands...227

ping Command...517

ppp Commands..519

pptp Commands..539

ra Commands..547

? Command

Displays this help information

.. Command

29

Exits group selection.

atm Commands

atm cac config

Configure ATM connection admission control.

SYNTAX:

`atm cac config`	`port = <{dsl0|dsl1|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 = <{dsl0|dsl1|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.

`atm debug portstats`	`port = <{dsl0|dsl1|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 oam cc modify

Modify CC on the connection.

SYNTAX:

atm oam cc modify	port = <{dsl0|dsl1|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.

atm oam cc send	port = <{dsl0|dsl1|atm2|atm3|aal5|atm5} or number> vpi = <number{0-31}> [vci = <number{0-511}]> [span = <{segment|end2end}]> [action = <{activate|deactivate}]> [direction = <{source|sink|both}]>

where:

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

atm oam config

Modify the ATM OAM settings.

SYNTAX:

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

where:

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

atm oam list

Display the ATM OAM settings.

atm oam modify

Modify the ATM OAM data blocking mode.

SYNTAX:

atm oam modify	port = <{dsl0|dsl1|atm2|atm3|aal5|atm5} or number> blocking = <{disabled|enabled}>

where:

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

atm oam ping

Send ATM loopback cells.

SYNTAX:

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

where:

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

atm oam vclb add

Create a loopback connection for VC

SYNTAX:

atm oam vclb add	port = <{dsl0|dsl1|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 = <{dsl0|dsl1|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=dsl0|dsl1|...\>

where:

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

atm phonebook delete

Delete a phonebook entry.

SYNTAX:

atm phonebook delete	name = <{}>

where:

name	The name of the 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.mdcr|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 ctddelete

Delete a connection traffic descriptor.

SYNTAX:

atm qosbook ctddelete	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.

config Commands

config delete

Delete a user configuration file.

SYNTAX:

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

where:

filename	configuration file to erase	OPTIONAL

config dump

Show the saved configuration file

config flush

Flush the loaded configuration.

SYNTAX:

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

where:

flush_ip	Flush IP settings or not.	OPTIONAL

config list

Show the current configuration set

SYNTAX:

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

where:

templates	list template files	OPTIONAL

config load

Load saved or default configuration.

SYNTAX:

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

where:

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

config save

Store current configuration to backup file

SYNTAX:

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

where:

filename	Filename for backupfile of current configuration	REQUIRED

connection Commands

connection appconfig	Modify a CONN/NAT application helper configuration	see page 78
connection appinfo	Display CONN/NAT application specific info	see page 79
connection applist	Display the available CONN/NAT application helpers.	see page 80
connection bind	Create a CONN/NAT application helper/port binding.	see page 81
connection bindlist	Display the CONN/NAT application helper/port bindings.	see page 82
connection clean	Clean connection database by forcing timeouts.	see page 83
connection clear	Kill all connections.	see page 84
connection config	Modify global connection configuration.	see page 85
connection debug	Connection debug commands.	see page 86
connection describe	Describe the streams of a connection.	see page 87
connection flush	Flush the connection configuration.	see page 88
connection info	Display all modules with some info.	see page 89
connection list	Display the currently known connections.	see page 90
connection refresh	Invalidate all cached decisions.	see page 91
connection stats	Display connection and stream statistics.	see page 92
connection timerclear	Clear connection timeout to default.	see page 93
connection timerconfig	Modify connection timeout handling.	see page 94
connection unbind	Delete a CONN/NAT application helper/port binding.	see page 95

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| SIPS_RTP|SIPS_SIG|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/disabled 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 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 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 clean

Clean connection database by forcing timeouts.

SYNTAX:

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

where:

level	Scrubbing level.	OPTIONAL

connection clear

Kill all connections.

connection config

Modify global connection configuration.

SYNTAX:

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

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 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 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 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 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 98
cwmp debug traceconfig	Enable or disable tracing.	see page 100
cwmp server config	Configure the cwmpd towards the ACS.	see page 101

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}]> [am1Termination = <{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

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 (0-0)	OPTIONAL

cwmp server config

Configure the cwmpd towards the ACS.

SYNTAX:

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

where:

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

debug Command

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

SYNTAX:

debug exec	cmd = <quoted string>

where:

cmd	Quoted 'Trace & Debug' command string	REQUIRED

dhcp Commands

dhcp relay delete	Delete an entry from the DHCP forward list.	see page 132
dhcp relay flush	Flushes the DHCP relay settings.	see page 133
dhcp relay ifconfig	Configure a relay interface.	see page 134
dhcp relay iflist	Show the configuration of the relay interfaces.	see page 135
dhcp relay list	List the DHCP forward list.	see page 136
dhcp relay modify	Modify an entry from the DHCP forward list.	see page 137
dhcp relay ruleadd	Add a selection rule to a DHCP forward entry	see page 138
dhcp relay ruledelete	Delete a selection rule from a DHCP forward entry	see page 139
dhcp rule add	Add a rule for DHCP conditional selection	see page 140
dhcp rule debug traceconfig	Modify DHCP rule trace configuration	see page 141
dhcp rule delete	Delete a DHCP rule	see page 142
dhcp rule flush	Flush all DHCP rules	see page 143
dhcp rule list	List all DHCP rules	see page 144
dhcp server config	Print DHCP server configuration settings	see page 145
dhcp server debug clear	Clear DHCP server statistics	see page 146
dhcp server debug stats	Print DHCP server statistics	see page 147
dhcp server debug traceconfig	Modify DHCP server trace configuration	see page 148
dhcp server flush	Flush all DHCP server pool and lease entries	see page 149
dhcp server lease add	Add a DHCP server lease	see page 150
dhcp server lease delete	Delete a DHCP server lease	see page 151
dhcp server lease flush	Flush all DHCP server leases	see page 152
dhcp server lease list	List all DHCP server leases	see page 153
dhcp server option flush	Flush all DHCP server option templates and instances	see page 154
dhcp server option instadd	Add a DHCP server option instance	see page 155
dhcp server option instdelete	Delete a DHCP server option instance	see page 156

dhcp client debug clear

Clear DHCP client statistics

dhcp client debug stats

Print DHCP client statistics

dhcp client debug traceconfig

Modify DHCP client trace configuration

SYNTAX:

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

where:

state	Enable/Disable tracing.	OPTIONAL

dhcp client flush

Delete all DHCP clients.

dhcp client ifadd

Create a DHCP client.

SYNTAX:

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

where:

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

dhcp client ifattach

Activate a DHCP client.

SYNTAX:

dhcp client ifattach	intf = <>

where:

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

dhcp client ifconfig

Configure a DHCP client.

SYNTAX:

```
dhcp client ifconfig          intf = <>
                              [label = <{None|DSCP|Interactive|Management|
                              SIPS_RTP|SIPS_SIG|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 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 rqoptions add

Add a DHCP Option Code to the Parameter Request List.

SYNTAX:

`dhcp client rqoptions 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 rqoptions delete

Delete a DHCP Option Code from the Parameter Request List.

SYNTAX:

```
dhcp client rqoptions 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 rqoptions list

List all DHCP Option Codes in the Parameter Request List.

SYNTAX:

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

where:

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

dhcp client rqoptions 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 txoptions delete

Delete an option.

SYNTAX:

```
dhcp client txoptions 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 relay config

Sets the relay configuration settings.

SYNTAX:

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

where:

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

dhcp relay debug stats

Print DHCP relay statistics.

dhcp relay debug traceconfig

Modify DHCP relay trace configuration

SYNTAX:

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

where:

state	Enable/Disable tracing.	OPTIONAL

dhcp relay delete

Delete an entry from the DHCP forward list.

SYNTAX:

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

where:

name	The forward entry name.	REQUIRED

dhcp relay flush

Flushes the DHCP relay settings.

dhcp relay ifconfig

Configure a relay interface.

SYNTAX:

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

where:

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

dhcp relay iflist

Show the configuration of the relay interfaces.

SYNTAX:

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

where:

intf	The name of the relay interface.	OPTIONAL

dhcp relay list

List the DHCP forward list.

SYNTAX:

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

where:

name	The forward entry name.	OPTIONAL

dhcp relay modify

Modify an entry from the DHCP forward list.

SYNTAX:

```
dhcp relay modify          name = <{LocalNetwork_to_127.0.0.1}>
                           [addr = <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 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 rule flush

Flush all DHCP rules

dhcp rule list

List all DHCP rules

dhcp server config

Print DHCP server configuration settings

SYNTAX:

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

where:

state	Enable/Disable the DHCP server.	OPTIONAL

dhcp server debug clear

Clear DHCP server statistics

dhcp server debug stats

Print DHCP server statistics

dhcp server debug traceconfig

Modify DHCP server trace configuration

SYNTAX:

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

where:

state	Enable/Disable tracing.	OPTIONAL

dhcp server flush

Flush all DHCP server pool and lease entries

dhcp server lease add

Add a DHCP server lease

SYNTAX:

```
dhcp server lease add          clientid = <clientid>
                               pool = <{LAN_private}>
                               [addr = <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 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>
                               tmplname = <>
                               [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
tmplname	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 tmpladd

Add a DHCP server option template

SYNTAX:

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

where:

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

dhcp server option tmpldelete

Delete a DHCP server option template

SYNTAX:

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

where:

name	The name of the DHCP server option template.	REQUIRED

dhcp server option tmpllist

List all DHCP server option templates

dhcp server policy

Print DHCP server policy settings

SYNTAX:

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

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 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 server pool delete

Delete a DHCP server pool

SYNTAX:

dhcp server pool delete	name = <{LAN_private}>

where:

name	The name of the DHCP server pool.	REQUIRED

dhcp server pool flush

Flush all DHCP server pools

dhcp server pool list

List all DHCP server pools

SYNTAX:

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

where:

name	The name of the DHCP server pool.	OPTIONAL

dhcp server pool optadd

Add an option instance to the DHCP server pool

SYNTAX:

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

where:

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

dhcp server pool optdelete

Delete an option instance from the DHCP server pool

SYNTAX:

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

where:

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

dhcp server pool rtadd

Add a route to the DHCP server pool

SYNTAX:

```
dhcp server pool rtadd          name = <{LAN_private}>
                                dst = <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 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 traceconfig	[state = <{disabled|enabled}]>

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.

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 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 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|
                            SIPS_RTP|SIPS_SIG|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

SYNTAX:

`dsd config`	`[state = <{disabled|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 HTTPI 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|nfds|nicname|nntp| ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd| realaudio|rip|rtelnet|rtsp|sip|smtp|snmp| snmptrap|snpp|sntp|sql*net|sql-net|sqlserv| sunrpc|syslog|systat|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 HTTPI 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 HTTPI 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 HTTPl log file

env Commands

env flush	Remove all non-system environment variables.	**see page 222**
env get	Gets an environment variable.	**see page 223**
env list	List all environment variables.	**see page 224**
env set	Sets an environment variable.	**see page 225**
env unset	Deletes an environment variable.	**see page 226**

env flush

Remove all non-system environment variables.

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 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 231
eth bridge clear	Clear bridge statistics.	see page 232
eth bridge config	Modify/Display the bridge configuration settings.	see page 233
eth bridge delete	Delete a bridge instance.	see page 234
eth bridge dynvlan actlist	Display the active MAC entries for the dynamic VLAN membership.	see page 235
eth bridge dynvlan add	Add a dynamic VLAN membership entry.	see page 236
eth bridge dynvlan config	Modify the dynamic VLAN membership configuration.	see page 237
eth bridge dynvlan delete	Delete a dynamic VLAN membership entry.	see page 238
eth bridge dynvlan flush	Flush all dynamic VLAN membership entries.	see page 239
eth bridge dynvlan list	Display a dynamic VLAN membership entry.	see page 240
eth bridge flush	Flush all bridge instances with their interfaces and properties.	see page 241
eth bridge ifadd	Add a new bridge interface.	see page 242
eth bridge ifattach	Attach a bridge interface.	see page 243
eth bridge ifconfig	Modify a bridge interface configuration.	see page 244
eth bridge ifdelete	Delete a bridge interface.	see page 246
eth bridge ifdetach	Detach a bridge interface.	see page 247
eth bridge ifflush	flush the bridge interfaces: detach/delete all interfaces.	see page 248
eth bridge iflist	Display the current bridge interfaces.	see page 249
eth bridge igmpsnooping clear	Clear snooping statistics.	see page 250
eth bridge igmpsnooping config	Configure bridge instance IGMP Snooping flags.	see page 251
eth bridge igmpsnooping ifconfig	Configure bridge interface IGMP snooping flags and mode.	see page 252
eth bridge igmpsnooping iflist	Display bridge interface IGMP status.	see page 253

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}>]
                             [xtratagging = <{none|c-vlan|s-vlan}>]
```

where:

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

regenprio	The priority regeneration table for tagged ingress packets.	OPTIONAL
ingressfiltering	Enable/disable discard of tagged ingress packets if the interface is not part of the VLAN.	OPTIONAL
acceptvlanonly	Enable/disable receipt of tagged ingress packets.	OPTIONAL
mcastfilter	Enable/disable discard of multicast packets for this interface.	OPTIONAL
dynvlan	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 indenpendent 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 vitual 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|transparant|}>

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,transparant] (notag: outer not tagged, transparant: 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|transparant|}>

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,transparant] (notag: outer not tagged, transparant: 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

Exits this shell.

expr Commands

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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql- net|sqlserv|sunrpc|syslog|systat|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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql- net|sqlserv|sunrpc|syslog|systat|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|nfds|
                        nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                        printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                        smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                        net|sqlserv|sunrpc|syslog|systat|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|nfds|
                        nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                        printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                        smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                        net|sqlserv|sunrpc|syslog|systat|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 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 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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql- net|sqlserv|sunrpc|syslog|systat|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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql- net|sqlserv|sunrpc|syslog|systat|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|nfds|
                              nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                              printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                              smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                              net|sqlserv|sunrpc|syslog|systat|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|nfds|
                              nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                              printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                              smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                              net|sqlserv|sunrpc|syslog|systat|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.	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
precedence [!]	The precedence in the IP packet (part of tos).	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
dscp [!]	The diffserv code point in the IP packet (part of tos).	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
proto [!]	The IP protocol (name or number) in the IP packet.	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
srcport [!]	The TCP/UDP source port number or range begin.	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
srcportend	The source TCP/UDP source port range end. (inclusive)	OPTIONAL
dstport [!]	The TCP/UDP destination port number or range begin.	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
dstportend	The TCP/UDP destination port range end.	OPTIONAL
icmptype [!]	The ICMP type (name or number) of the packet.	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
icmpcode [!]	The ICMP code or range begin.	OPTIONAL
	If a value is preceded by a "!", it means NOT.	
icmpcodeend	The ICMP code range end. (inclusive)	OPTIONAL

firewall Commands

firewall chain add	Add a chain.	see page 322
firewall chain delete	Delete a chain.	see page 323
firewall chain flush	Flush all chains.	see page 324
firewall chain list	Display a list of chains.	see page 325
firewall clear	Clear firewall configuration.	see page 326
firewall config	Display/Modify firewall configuration.	see page 327
firewall debug clear	Clear firewall statistics.	see page 328
firewall debug stats	Display firewall statistics.	see page 329
firewall level add	Add a new security level.	see page 330
firewall level delete	Delete a security level.	see page 331
firewall level flush	Flush security level configuration.	see page 332
firewall level list	List all security levels.	see page 333
firewall level modify	Modify a security level.	see page 334
firewall level set	Set/Display active security level.	see page 335
firewall list	Display firewall configuration.	see page 336
firewall rule add	Add a rule.	see page 337
firewall rule delete	Delete a rule.	see page 339
firewall rule flush	Flush all rules.	see page 340
firewall rule list	Display a list of rules.	see page 341
firewall rule modify	Modify a rule.	see page 342

firewall chain add

Add a chain.

SYNTAX:

firewall chain add	chain = <string>

where:

chain	The name of the chain to add.	REQUIRED

firewall chain delete

Delete a chain.

SYNTAX:

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

where:

chain	The name of the chain to delete.	REQUIRED

firewall chain flush

Flush all chains.

firewall chain list

Display a list of chains.

SYNTAX:

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

where:

format	The format of the chain list.	OPTIONAL

firewall clear

Clear firewall configuration.

firewall config

Display/Modify firewall configuration.

SYNTAX:

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

where:

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

firewall debug clear

Clear firewall statistics.

firewall debug stats

Display firewall statistics.

firewall 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 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

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

help Command

Displays this help information

hostmgr Commands

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

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 list

List all host devices

SYNTAX:

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

where:

expand	Expanded listing.	OPTIONAL

ids Commands

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 370
igmp host debug clear	Clear IGMP statistics.	see page 371
igmp host debug stats	Print IGMP statistics.	see page 372
igmp host flush	Flush the IGMP settings.	see page 373
igmp host ifconfig	Configure an IGMP interface.	see page 374
igmp host iflist	Show the configuration of the IGMP interfaces.	see page 375
igmp host list	Show the IGMP groups.	see page 376
igmp proxy config	Configure the IGMP proxy.	see page 377
igmp proxy debug clear	Clear IGMP proxy statistics	see page 378
igmp proxy debug stats	Print IGMP proxy statistics	see page 379
igmp proxy debug traceconfig	Modify IGMP proxy trace configuration	see page 380
igmp proxy flush	Flush all IGMP proxy settings and learned groups	see page 381
igmp proxy grouplist	Show the learned groups on an IGMP proxy interface.	see page 382
igmp proxy ifconfig	Configure an IGMP proxy interface.	see page 383
igmp proxy iflist	Show the configuration of an IGMP proxy interface.	see page 384
igmp proxy mbslist	Show the IGMP proxy membership database (merge of all learned groups).	see page 385

igmp host config

Display/Modify global IGMP configuration.

SYNTAX:

`igmp host config`	`[requirera = <{disabled|enabled}]>`

where:

requirera	Enable/Disable the router alert IP option check.	OPTIONAL

igmp host debug clear

Clear IGMP statistics.

igmp host debug stats

Print IGMP statistics.

igmp host flush

Flush the IGMP settings.

igmp host ifconfig

Configure an IGMP interface.

SYNTAX:

`igmp host ifconfig`	`intf = <{loop|Internet|LocalNetwork}>` `version = <{none|IGMPv1|IGMPv2|IGMPv3}>`

where:

intf	The IP interface name.	REQUIRED
version	The IGMP version of the IP interface.	REQUIRED

igmp host iflist

Show the configuration of the IGMP interfaces.

SYNTAX:

```
igmp host iflist                [expand = <{disabled|enabled}]>
```

where:

expand	Expanded listing.	OPTIONAL

igmp host list

Show the IGMP groups.

SYNTAX:

igmp host list	[intf = <{loop|Internet|LocalNetwork}]>
	[expand = <{disabled|enabled}]>

where:

intf	The IP interface name.	OPTIONAL
expand	Expanded listing.	OPTIONAL

igmp proxy config

Configure the IGMP proxy.

SYNTAX:

`igmp proxy config`	`[state = <{disabled|enabled}]>`
	`[qi = <number{1-86400}]>`
	`[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 proxy debug stats

Print IGMP proxy statistics

igmp proxy debug traceconfig

Modify IGMP proxy trace configuration

SYNTAX:

```
igmp proxy debug traceconfig    [state = <{disabled|enabled}]>
```

where:

state	Enable/Disable tracing.	OPTIONAL

igmp proxy flush

Flush all IGMP proxy settings and learned groups

igmp proxy grouplist

Show the learned groups on an IGMP proxy interface.

SYNTAX:

`igmp proxy grouplist`	`[intf = <{LocalNetwork}]>` `[expand = <{disabled|enabled}]>`

where:

intf	The name of the IGMP proxy interface to be listed.	OPTIONAL
expand	Expanded listing.	OPTIONAL

igmp proxy ifconfig

Configure an IGMP proxy interface.

SYNTAX:

igmp proxy ifconfig	intf = <{LocalNetwork|Internet}> [state = <{inactive|downstream|upstream}]> [version = <{IGMPv1|IGMPv2|IGMPv3}]> [fastleave = <{disabled|enabled}]> [exptrack = <{disabled|enabled}]> [mrd = <{disabled|enabled}]>

where:

intf	The name of the IGMP proxy interface to be configured.	REQUIRED
state	The state of the IGMP proxy interface.	OPTIONAL
version	The IGMP version of the IGMP proxy interface.	OPTIONAL
fastleave	Enable/Disable the immediate deletion of a group when a leave is received.	OPTIONAL
exptrack	Enable/Disable explicit host tracking.	OPTIONAL
mrd	Enable/Disable sending multicast router advertisements (rfc 4286).	OPTIONAL

igmp proxy iflist

Show the configuration of an IGMP proxy interface.

SYNTAX:

igmp proxy iflist	[expand = <{disabled|enabled}]>

where:

expand	Expanded listing.	OPTIONAL

igmp proxy mbslist

Show the IGMP proxy membership database (merge of all learned groups).

interface 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 391
ip arpdelete	Delete an ARP entry.	see page 392
ip arplist	Display the ARP cache.	see page 393
ip auto flush	Flushes autoIP interfaces.	see page 394
ip auto ifadd	Creates a new autoIP interface.	see page 395
ip auto ifattach	Select and assign a link-local address to an autoIP interface.	see page 396
ip auto ifconfig	Configures an autoIP interface.	see page 397
ip auto ifdelete	Deletes an existing autoIP interface.	see page 398
ip auto ifdetach	Release the link-local address for the given autoIP interface.	see page 399
ip auto iflist	Shows the autoIP interfaces.	see page 400
ip config	Display/Modify global IP stack configuration.	see page 401
ip debug httpprobe	Send HTTP probe to measure the round trip time taken to connect and access	see page 402
ip debug sendto	Send UDP packets.	see page 403
ip flush	Flush all static IP parameters. Dynamic info (e.g. from PPP links) remains.	see page 404
ip ifadd	Create an IP interface.	see page 405
ip ifattach	Attach an IP interface.	see page 406
ip ifconfig	Modify an IP interface configuration.	see page 407
ip ifdelete	Delete an IP interface.	see page 408
ip ifdetach	Detach an IP interface.	see page 409
ip iflist	Display all IP interfaces.	see page 410
ip ifwait	Wait for a status change of an IP interface.	see page 411
ip ipadd	Assign an IP address to an IP interface.	see page 412
ip ipconfig	Modify an IP address configuration.	see page 413

ip ipdelete	Remove an IP address from an IP interface.	**see page 414**
ip iplist	Display all configured IP addresses.	**see page 415**
ip mcast flush	Flush the multicast routing table.	**see page 416**
ip mcast rtadd	Add a multicast route to the multicast routing table.	**see page 417**
ip mcast rtdelete	Delete a multicast route from the multicast routing table.	**see page 418**
ip mcast rtlist	Display the multicast routing table.	**see page 419**
ip rtadd	Add a route to the routing table.	**see page 420**
ip rtdelete	Delete a route from the routing table.	**see page 421**
ip rtlist	Display the routing table.	**see page 422**

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 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 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|
                      SIPS_RTP|SIPS_SIG|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|
                               SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|
                               default}]>
                               [gateway = <ip-address>]
                               [intf = <{loop|Internet|LocalNetwork}]>
```

where:

dst	The destination IP address specification of the route to delete. 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 424**
ipqos ef config	Modify an IP QoS EF timer configuration for an interface.	**see page 425**
ipqos ef list	Display the IP QoS EF timers.	**see page 426**
ipqos ef stats	Display the IP QoS EF timer statistics.	**see page 427**
ipqos list	Display the IP QoS configuration.	**see page 428**
ipqos queue clear	Clear the IP QoS statistics.	**see page 429**
ipqos queue config	Modify the IP QoS subqueue configuration.	**see page 430**
ipqos queue list	Display the IP QoS subqueue configuration.	**see page 431**
ipqos queue stats	Display the IP QoS subqueue statistics.	**see page 432**

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 bandwith.	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 weigthed 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 add	Add a label.	see page 434
label chain add	Add a chain.	see page 435
label chain delete	Delete a chain.	see page 436
label chain flush	Flush all chains.	see page 437
label chain list	Display a list of chains.	see page 438
label delete	Delete a label.	see page 439
label flush	Flush all label.	see page 440
label list	Display the labels.	see page 441
label modify	Modify a label configuration.	see page 442
label rule add	Add a rule.	see page 443
label rule delete	Delete a rule.	see page 444
label rule flush	Flush all rules.	see page 445
label rule list	Display a list of rules.	see page 446
label rule modify	Modify a rule.	see page 447

label add

Add a label.

SYNTAX:

label add	name = <string>

where:

name	The name of a label to add.	REQUIRED

label chain add

Add a chain.

SYNTAX:

label chain add	chain = <string>

where:

chain	The name of the chain to add.	REQUIRED

label chain delete

Delete a chain.

SYNTAX:

label chain delete	chain = <chain name>

where:

chain	The name of the chain to delete.	REQUIRED

label chain flush

Flush all chains.

label chain list

Display a list of chains.

SYNTAX:

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

where:

format	The format of the chain list.	OPTIONAL

label delete

Delete a label.

SYNTAX:

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

where:

name	The name of a label.	REQUIRED

label flush

Flush all label.

label list

Display the labels.

SYNTAX:

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

where:

name	The name of a label.	OPTIONAL

label modify

Modify a label configuration.

SYNTAX:

`label modify`	`name = <{DSCP|Interactive|Management|SIPS_RTP|`
	`SIPS_SIG|Video|VoIP-RTP|VoIP-Signal|default}>`
	`[classification = <{ignore|overwrite|`
	`increase}]>`
	`[defclass = <{0|1|2|3|4|5|6|7|8|9|10|11|12|13|`
	`14|15|dscp|default}]>`
	`[ackclass = <{0|1|2|3|4|5|6|7|8|9|10|11|12|13|`
	`14|15|prioritize|defclass}]>`
	`[bidirectional = <{disabled|enabled}]>`
	`[inheritance = <{disabled|enabled}]>`
	`[tosmarking = <{disabled|enabled}]>`
	`[tos = <number{0-255}]>`
	`[dscp = <{ef|af11|af12|af13|af21|af22|af23|`
	`af31|af32|af33|af41|af42|af43|cs0|cs1|cs2|cs3|`
	`cs4|cs5|cs6|cs7} or number]>`
	`[precedence = <{routine|priority|immediate|`
	`flash|flash-override|CRITIC-ECP|internetwork-`
	`control|network-control} or number]>`
	`[trace = <{disabled|enabled}]>`

where:

name	The name of a label to modify.	REQUIRED
classification	The Method of classification.	OPTIONAL
defclass	The default class of assigned connection.	OPTIONAL
ackclass	The class of ACK segments of TCP connection.	OPTIONAL
bidirectional	The label is also valid for returning stream.	OPTIONAL
inheritance	The label is also valid for corresponding stream of child connection.	OPTIONAL
tosmarking	Enable/disable TOS marking.	OPTIONAL
tos	The Type Of Service specification in the IP packet (used for tos- marking).	OPTIONAL
dscp	The diffserv code point (part of tos, used for tos-marking).	OPTIONAL
precedence	The precedence (part of tos, used for tos-marking).	OPTIONAL
trace	Enable/disable IP tracing for this label.	OPTIONAL

label rule add

Add a rule.

SYNTAX:

```
label rule add          chain = <chain name>
                        [index = <number>]
                        [name = <string>]
                        [clink = <chain name>]
                        [srcintf [!] = <{wan|local|lan|tunnel|dmz|
                        guest}]>
                        [srcip [!] = <{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|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                        VoIP-Signal|default}>
```

where:

chain	The name of the chain which contains the rule.	REQUIRED
index	The index of the rule in the chain.	OPTIONAL
name	The name of the new rule.	OPTIONAL
clink	The name of the chain to be parsed when this rule applies.	OPTIONAL
srcintf [!]	The name of the source interface expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
srcip [!]	The name of the source ip expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
dstip [!]	The name of the destination ip expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
serv [!]	The name of the service expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
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 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|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|`
	`VoIP-Signal|default}]>`

where:

chain	The name of the chain which contains the rule.	REQUIRED
index	The index of the rule in the chain.	OPTIONAL
newindex	The new index of the rule in the chain.	OPTIONAL
name	The name of the new rule.	OPTIONAL
clink	The name of the chain to be parsed when this rule applies.	OPTIONAL
[!]srcintf]	The name of the source interface expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
[!]srcip]	The name of the source ip expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
[!]dstip]	The name of the destination ip expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
[!]serv]	The name of the service expression. If a value is preceded by a "!", it means NOT.	OPTIONAL
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.

SYNTAX:

language config	[language = <string]> [complete = <{yes|no}]>
where:	

language	Language code : OSI language code (2 chars) for language (en=English)	OPTIONAL
complete	Enable translation for expert pages.	OPTIONAL

language delete

Delete one or all language archives.

SYNTAX:

language delete	[file = <string]>
	[all = <{yes|no}]>

where:

file	Filename : name of language archive to delete	OPTIONAL
all	Deletes all languages archives.	OPTIONAL

language list

List available languages archives.

mbus Commands

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 client config

Modify client parameters

SYNTAX:

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

where:

writelock	Get/release mbus writelock	OPTIONAL
wlgetimeout	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:

cmd	Mbus command name	REQUIRED
param	Parameter name	OPTIONAL
value	Parameter value to set	OPTIONAL
gettype	Get type elements (default=param)	OPTIONAL
depth	Number of levels to recurse, default=-1 (all)	OPTIONAL
processcmd	Process SET_VALUE command flag (default=enabled)	OPTIONAL
onerrorrollback	on error rollback flag (default=enabled)	OPTIONAL
usecallback	Use result callback function (default=enabled)	OPTIONAL
filter	The filter should be formatted as '(operator operand operand)'. Possible operators are ==, !	OPTIONAL

	=, <, <=, >, >=, 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|keystrpath}]> [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|keystrpath}]>`
	`[flush = <{disabled|enabled}]>`

where:

dmtree	Select mbusd datamodel tree.	OPTIONAL
path	Fully qualified mbus path	OPTIONAL
type	Path type (default = indexpath)	OPTIONAL
flush	Flush objects before load (default=disabled)	OPTIONAL

mbus debug stats

Display mbus statistics.

mbus debug traceconfig

Modify mbus trace settings.

SYNTAX:

`mbus debug traceconfig`	`[level = <number{0-4}]>`

where:

level	Select mbus trace level (0-4).	OPTIONAL

mbus debug unloadobjects

Unload object instances

SYNTAX:

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

where:

dmtree	Select mbusd datamodel tree.	OPTIONAL
path	Fully qualified mbus path	OPTIONAL
type	Path type	OPTIONAL
flush	Flush objects before load (default=disabled)	OPTIONAL

mbus listcontexts

Display the context instances

SYNTAX:

mbus listcontexts	[dmtree = <{igd|atomic|system}]> [expand = <{disabled|enabled}]>

where:

dmtree	Select mbusd datamodel tree.	OPTIONAL
expand	Details enabled/disabled	OPTIONAL

mbus listenums

Display the registered enumtypes

SYNTAX:

mbus listenums	[dmtree = <{igd|atomic|system}]> [name = <quoted string]> [expand = <{disabled|enabled}]>

where:

dmtree	Select mbusd datamodel tree.	OPTIONAL
name	Filter enumtypes by (part of) the name	OPTIONAL
expand	Details enabled/disabled	OPTIONAL

mbus listobjects

Display the object instances

SYNTAX:

```
mbus listobjects          [dmtree = <{igd|atomic|system}]>
                          [path = <quoted string]>
                          [type = <{indexpath|objidpath|keystrpath}]>
                          [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|updobj}>
                          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.

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 debug stats

Display memm time statistics.

SYNTAX:

memm debug stats	[name = <quoted string]>

where:

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

memm debug tag

(Un)tag memory manager objects.

SYNTAX:

`memm debug tag`	`[name = <quoted string]>` `[tag = <{enabled|disabled}]>`

where:

name	Select typename(s) to list (supports partial typename)	OPTIONAL
tag	Set (or unset) the tag	OPTIONAL

memm debug traceconfig

Modify memm trace settings.

SYNTAX:

memm debug traceconfig	[level = <number{0-4}]>

where:

level	Select memm trace level (0-4).	OPTIONAL

memm listobjects

Display objects.

SYNTAX:

memm listobjects	[name = <quoted string]> [tagged = <{no|yes}]> [hidedeldynstr = <{no|yes}]>

where:

name	Select typename(s) to list (supports partial typename)	OPTIONAL
tagged	Show only tagged (yes) or untagged (no) objects	OPTIONAL
hidedeldynstr	Hide (yes) / show (no) deleted dynstrings (default = show)	OPTIONAL

memm stats

Display memm statistics.

SYNTAX:

memm stats	[name = <quoted string]>	
where:		
name	Select typename(s) to list (supports partial typename)	OPTIONAL

menu Command

Displays menu

mlp Commands

mlp debug export

Export all scores.

mlp debug stats

Display mlp statisctics.

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 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.

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 tranparent address translation.	REQUIRED

nat iflist

Display all interfaces.

nat mapadd

Add an address mapping to a nat enabled interface.

SYNTAX:

nat mapadd	intf = <{loop|Internet|LocalNetwork}> [type = <{napt|nat}>] [outside_addr = <ip-range>] [inside_addr = <ip-range>] [access_list = <ip-range>] [foreign_addr = <ip-range>] [protocol = <{ah|egp|esp|ggp|gre|hmp|icmp| 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 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 tmpladd

Add an address mapping template.

SYNTAX:

```
nat tmpladd                      [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 tmpllist'.	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 tmpllist

Display address mapping templates.

SYNTAX:

nat tmpllist	[expand = <{disabled|enabled}]>

where:

expand	Expanded listing.	OPTIONAL

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 520
ppp ifadd	Create a new PPP interface.	see page 521
ppp ifattach	Attach a PPP interface.	see page 522
ppp ifconfig	Modify a PPP interface.	see page 523
ppp ifdelete	Delete a PPP interface.	see page 526
ppp ifdetach	Detach a PPP interface.	see page 527
ppp iflist	Display the PPP interfaces.	see page 528
ppp ifscan	Scan a PPP interface for available interfaces.	see page 529
ppp relay flush	Remove all ethernet interfaces from the PPP relay agent list and terminate all	see page 530
ppp relay ifadd	Add an ethernet interface to the PPP relay list.	see page 531
ppp relay ifconfig	Modify an ethernet interface from the PPP relay agent list.	see page 532
ppp relay ifdelete	Delete an ethernet interface from the PPP relay agent list.	see page 533
ppp relay iflist	Display all ethernet interfaces added to the PPP relay agent list.	see page 534
ppp relay sesslist	Display all active PPP relay sessions.	see page 535
ppp rtadd	Add a route to the routing table when PPP link comes up.	see page 536
ppp rtdelete	Delete the route for a PPP link.	see page 537

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{0-1000000}]>
                                [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

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| SIPS_RTP|SIPS_SIG|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.

pptp ifadd

Adds a PPTP profile (backwards compatible with previous release, use profiles

SYNTAX:

`pptp ifadd`	`dest = <string>`
	`[rate = <number{10-10000}]>`
	`[encaps = <{vcmux|nlpid}]>`
	`[ac = <{never|always|keep}]>`

where:

dest	The WAN destination for this PPTP tunnel. Typically a phonebook name.	REQUIRED
rate	Transmit speed in kbits/s for the WAN link.	OPTIONAL
encaps	The WAN protocol encapsulation.	OPTIONAL
ac	Enable/disable sending address and control field (0xFF03) on the WAN link.	OPTIONAL

pptp list

Shows PPTP configuration.

pptp profadd

Defines a new PPTP profile.

SYNTAX:

```
pptp profadd                        name = <string>
                                    [qos = <{default}]>
                                    [encaps = <{vcmux|nlpid}]>
                                    [ac = <{never|always|keep}]>
```

where:

name	The name for the new PPTP profile.	REQUIRED
qos	The name of the qosbook entry, containing the settings for this profile.	OPTIONAL
encaps	The WAN protocol encapsulation to be used with this profile.	OPTIONAL
ac	Enable/disable sending address and control field (0xFF03) on the WAN link.	OPTIONAL

pptp profdelete

Deletes a PPTP profile.

SYNTAX:

pptp profdelete	name = <>

where:

name	The name of the profile to delete.	REQUIRED

pptp proflist

Lists PPTP profiles.

ra Commands

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 start

Starts temporary mode.

ra stop

Stops temporary mode.

saveall Command

Saves current configuration.

script Commands

script add	Add line to script.	**see page 554**
script delete	Delete complete script or line from script.	**see page 555**
script flush	Flush scripts.	**see page 556**
script list	List script.	**see page 557**
script run	Run script.	**see page 558**

script add

Add line to script.

SYNTAX:

script add	name = <string> [index = <number]> command = <quoted string>

where:

name	Name of script.	REQUIRED
index	Line number (0 = add).	OPTIONAL
command	Command.	REQUIRED

script delete

Delete complete script or line from script.

SYNTAX:

`script delete`	`name = <{autopvc_add_qos|autopvc_delete_qos|`
	`autopvc_add_bridge|autopvc_delete_pppoerelay|`
	`autopvc_add_ipoa|autopvc_delete_ipoa|`
	`autopvc_add_ethoa|autopvc_delete_ethoa|`
	`autopvc_add_pppoa|autopvc_delete_pppoa|`
	`autopvc_add_pppoe|autopvc_delete_pppoe|`
	`autopvc_change_qos|wlbrintfadd|wlbrintfdel}>`
	`[index = <number]>`

where:

name	Name of script.	REQUIRED
index	Line number.	OPTIONAL

script flush

Flush scripts.

script list

List script.

SYNTAX:

script list	[name = <{autopvc_add_qos|autopvc_delete_qos| autopvc_add_bridge|autopvc_delete_pppoerelay| autopvc_add_ipoa|autopvc_delete_ipoa| autopvc_add_ethoa|autopvc_delete_ethoa| autopvc_add_pppoa|autopvc_delete_pppoa| autopvc_add_pppoe|autopvc_delete_pppoe| autopvc_change_qos|wlbrintfadd|wlbrintfdel}]>

where:

name	Name of script.	OPTIONAL

script run

Run script.

SYNTAX:

script run	name = <{autopvc_add_qos|autopvc_delete_qos| autopvc_add_bridge|autopvc_delete_pppoerelay| autopvc_add_ipoa|autopvc_delete_ipoa| autopvc_add_ethoa|autopvc_delete_ethoa| autopvc_add_pppoa|autopvc_delete_pppoa| autopvc_add_pppoe|autopvc_delete_pppoe| autopvc_change_qos|wlbrintfadd|wlbrintfdel}> pars = <quoted string>

where:

name	Name of script.	REQUIRED
pars	Parameters separated with comma e.q. a,b,c .	REQUIRED

service Commands

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 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 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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|sunrpc|syslog|systat|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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net| sqlserv|sunrpc|syslog|systat|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

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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|sunrpc|syslog|systat|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|nfds| nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3| printer|qotd|realaudio|rip|rtelnet|rtsp|sip| smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net| sqlserv|sunrpc|syslog|systat|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

| 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|DNS-S|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|DNS-S|`
	`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|DNS-S|`
	`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|DNS-S|`
	`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|SYSLOG|HTTP|S| DHCP-R|SSDP|MDAP|CWMP-C|CWMP-S|SIP_SERVER| SIP_SERVER_SIG|SIP_SERVER_RTP|VOIP_SIP| VOIP_SIP_UDP|VOIP_SIP_TCP|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 sevices.	OPTIONAL
members	Display sevice group members.	OPTIONAL

service system mapadd

Add a port map for a service.

SYNTAX:

service system mapadd	name = <{PPTP|HTTP|HTTPs|HTTPl|FTP|TELNET|DNS-S|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|nfds|nicname|nntp| ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd| realaudio|rip|rtelnet|rtsp|sip|smtp|snmp| snmptrap|snpp|sntp|sql*net|sql-net|sqlserv| sunrpc|syslog|systat|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|HTTPI|FTP|TELNET|DNS-
                                  S|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|nfds|nicname|nntp|
                                  ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd|
                                  realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                                  snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                                  sunrpc|syslog|systat|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 modify

Modify a service.

SYNTAX:

```
service system modify          name = <{PPTP|PPTPD|PPTPGRE|SNTP|
                               SLA_ICMP_PING|SLA_UDP_PING|SYSLOG|HTTP|
                               DHCP-R|SSDP|MDAP|CWMP-C|CWMP-S|SIP_SERVER|
                               SIP_SERVER_SIG|SIP_SERVER_RTP|VOIP_SIP|
                               VOIP_SIP_UDP|VOIP_SIP_TCP|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|nfds|nicname|nntp|
                               ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd|
                               realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                               snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                               sunrpc|syslog|systat|talk|telnet|...} or
                               number]>
                               [qoslabel = <{None|DSCP|Interactive|
                               Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                               VoIP-Signal|default}>]
                               [routelabel = <{None|DSCP|Interactive|
                               Management|SIPS_RTP|SIPS_SIG|Video|VoIP-RTP|
                               VoIP-Signal|default}>]
                               [srcintf = <{loop|Internet|LocalNetwork}>]
                               [log = <{disabled|enabled}>]
                               [forward = <{disabled|enabled}>]
                               [natpmweight = <number{0-255}>]
```

where:

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

sipserver Commands

sipserver intua map delete	Delete internal-external user agent connection	see page 607
sipserver intua map flush	Flush all internal-external user agent connections	see page 608
sipserver intua map list	Show all internal-external user agent connections	see page 609
sipserver intua map modify	Modify internal-external user agent connection	see page 610
sipserver intua modify	Modify internal user agent	see page 611
sipserver outbproxy add	Add outbound proxy	see page 612
sipserver outbproxy delete	Delete outbound proxy	see page 613
sipserver outbproxy flush	Flush all outbound proxy's	see page 614
sipserver outbproxy list	Show all outbound proxy's	see page 615
sipserver outbproxy modify	Modify outbound proxy	see page 616
sipserver outbreg add	Add outbound registrar	see page 617
sipserver outbreg delete	Delete outbound registrar	see page 618
sipserver outbreg flush	Flush all outbound registrars	see page 619
sipserver outbreg list	Show all outbound registrars	see page 620
sipserver outbreg modify	Modify outbound registrar	see page 621
sipserver registrar bind add	Add interface	see page 622
sipserver registrar bind delete	Delete interface	see page 623
sipserver registrar bind flush	Flush all interfaces	see page 624
sipserver registrar bind list	Show all interfaces	see page 625
sipserver registrar config	Configure registrar	see page 626
sipserver registrar loc list	Show the location database	see page 627

sipserver config

Configure the general parameters

SYNTAX:

`sipserver config`	`[areacode = <string]>`
	`[maxsessions = <number{1-4}]>`
	`[rtpportrange = <port-range]>`
	`[register-backoff-timer = <number{0-86400}]>`
	`[stickyoutbproxy = <{disabled|enabled}]>`

where:

areacode	The geographical number	OPTIONAL
maxsessions	The maximum number of simultaneous sessions	OPTIONAL
rtpportrange	The beginport - endport range	OPTIONAL
register-backoff-timer	Fixed backoff timer in registration procedure	OPTIONAL
stickyoutbproxy	Outbound proxy lock over transactions	OPTIONAL

sipserver debug config

Configure debug settings

SYNTAX:

`sipserver debug config`	`[regstatuscode = <number{0-999}]>`
	`[callstatuscode = <number{0-999}]>`
	`[retryafter = <number{0-3600}]>`
	`[contact = <string]>`

where:

regstatuscode	Forced status code in REGISTER response	OPTIONAL
callstatuscode	Forced status code in CALL response	OPTIONAL
retryafter	Retry-after header value	OPTIONAL
contact	specific contact header (e.g. for 3xx)	OPTIONAL

sipserver dns config

Configure DNS

SYNTAX:

sipserver dns config	[startentry = <{first|random}]> [maxentries = <number{1-24}]>

where:

startentry	Entry to start with in the registration procedure	OPTIONAL
maxentries	Maximum nbr of used entries in a DNS response	OPTIONAL

sipserver extua activate

Activate the supplementary service

SYNTAX:

sipserver extua activate	id = <{1|2|3|4|}> type = <{clip|clir}>

where:

id	The external ua identifier	REQUIRED
type	The supplementary service type	REQUIRED

sipserver extua add

Add external user agent

SYNTAX:

```
sipserver extua add          id = <{1|2|3|4|}>
                             [aor = <string]>
                             [username = <string]>
                             [password = <password]>
                             [displayname = <quoted string>]
                             [intf = <{Internet|LocalNetwork}]>
                             [sipport = <{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|nfds|
                             nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                             printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                             smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                             net|sqlserv|sunrpc|syslog|systat|talk|...}
                             ornumber]>
                             [outboundregistrar = <number{1-4}]>
                             [outboundproxy = <number{1-4}]>
                             [registerexpire = <number{0-31536000}]>
                             [status = <{disabled|enabled}]>
```

where:

id	The external ua identifier	REQUIRED
aor	The SIP URI related to this Address-Of-Record	OPTIONAL
username	The authentication username related to this Address-Of-Record	OPTIONAL
password	The authentication password related to this Address-Of-Record	OPTIONAL
displayname	An alias name for the SIP_URI	OPTIONAL
intf	The WAN interface name	OPTIONAL
sipport	The WAN SIP port number	OPTIONAL
outboundregistrar	The outbound registrar number	OPTIONAL
outboundproxy	The outbound proxy number	OPTIONAL
registerexpire	The register expiry time	OPTIONAL
status	The status of the external user agent	OPTIONAL

sipserver extua deactivate

Deactivate the supplementary service

SYNTAX:

```
sipserver extua deactivate     id = <{1|2|3|4|}>
                               type = <{clip|clir}>
```

where:

id	The external ua identifier	REQUIRED
type	The supplementary service type	REQUIRED

sipserver extua delete

Delete external user agent

SYNTAX:

```
sipserver extua delete          id = <>
```

where:

id	The external ua identifier	REQUIRED

sipserver extua flush

Flush all external user agents

sipserver extua list

Show all external user agents

SYNTAX:

sipserver extua list	id = <{all|...}>

where:

id	The external ua identifier	REQUIRED

sipserver extua listservices

Show the services for the user agents

SYNTAX:

```
sipserver extua listservices    id = <{all|...}>
```

where:

id	The external ua identifier	REQUIRED

sipserver extua map add

Add external-internal user agent connection

SYNTAX:

```
sipserver extua map add        extua = <{1|2|3|4|}>
                               intua = <{1|2|3|4|5|6|7|8|9|10|}>
```

where:

extua	The external user agent	REQUIRED
intua	The internal user agent	REQUIRED

sipserver extua map delete

Delete external-internal user agent connection

SYNTAX:

```
sipserver extua map delete      extua = <{1|2|3|4|}>
                                intua = <{1|2|3|4|5|6|7|8|9|10|}>
```

where:

extua	The external user agent	REQUIRED
intua	The internal user agent	REQUIRED

sipserver extua map flush

Flush all external-internal user agent connections

sipserver extua map list

Show all external-internal user agent connections

SYNTAX:

sipserver extua map list	extua = <{all|...}>

where:

extua	The external user agent	REQUIRED

sipserver extua map modify

Modify external-internal user agent connection

SYNTAX:

```
sipserver extua map modify        extua = <{1|2|3|4|}>
                                  intua = <{1|2|3|4|5|6|7|8|9|10|}>
                                  newintua = <{1|2|3|4|5|6|7|8|9|10|}>
```

where:

extua	The external user agent	REQUIRED
intua	The internal user agent	REQUIRED
newintua	The internal user agent	REQUIRED

sipserver extua modify

Modify external user agent

SYNTAX:

```
sipserver extua modify          id = <>
                                [aor = <string>]
                                [username = <string>]
                                [password = <password>]
                                [displayname = <quoted string>]
                                [intf = <{Internet|LocalNetwork}>]
                                [sipport = <{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|nfds|
                                nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                                printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                                smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                                net|sqlserv|sunrpc|syslog|systat|talk|...}
                                ornumber]>
                                [outboundregistrar = <number{1-4}>]
                                [outboundproxy = <number{1-4}>]
                                [registerexpire = <number{0-31536000}>]
                                [status = <{disabled|enabled}>]
```

where:

id	The external ua identifier	REQUIRED
aor	The SIP URI related to this Address-Of-Record	OPTIONAL
username	The authentication username related to this Address-Of-Record	OPTIONAL
password	The authentication password related to this Address-Of-Record	OPTIONAL
displayname	An alias name for the SIP_URI	OPTIONAL
intf	The WAN interface name	OPTIONAL
sipport	The WAN SIP port number	OPTIONAL
outboundregistrar	The outbound registrar number	OPTIONAL
outboundproxy	The outbound proxy number	OPTIONAL
registerexpire	The register expiry time	OPTIONAL
status	The status of the external user agent	OPTIONAL

sipserver extua provision

Provision the supplementary service

SYNTAX:

sipserver extua provision	id = <{1|2|3|4|}> type = <{clip|clir}>

where:

id	The external ua identifier	REQUIRED
type	The supplementary service type	REQUIRED

sipserver extua transparent

Make the supplementary service transparent

SYNTAX:

```
sipserver extua transparent      id = <{1|2|3|4|}>
                                 type = <{clip|clir}>
```

where:

id	The external ua identifier	REQUIRED
type	The supplementary service type	REQUIRED

sipserver extua withdraw

Withdraw the supplementary service

SYNTAX:

```
sipserver extua withdraw        id = <{1|2|3|4|}>
                                type = <{clip|clir}>
```

where:

id	The external ua identifier	REQUIRED
type	The supplementary service type	REQUIRED

sipserver intua add

Add internal user agent

SYNTAX:

```
sipserver intua add          id = <{1|2|3|4|5|6|7|8|9|10|}>
                             [aor = <string]>
                             [username = <string]>
                             [password = <password]>
                             [status = <{disabled|enabled}]>
```

where:

id	The external ua identifier	REQUIRED
aor	The SIP URI related to this Address-Of-Record	OPTIONAL
username	The authentication username related to this Address-Of-Record	OPTIONAL
password	The authentication password related to this Address-Of-Record	OPTIONAL
status	The status of the external user agent	OPTIONAL

sipserver intua delete

Delete internal user agent

SYNTAX:

sipserver intua delete	id = <>

where:

id	The external ua identifier	REQUIRED

sipserver intua flush

Flush all internal user agents

sipserver intua list

Show all internal user agents

SYNTAX:

sipserver intua list	id = <{all|...}>

where:

id	The external ua identifier	REQUIRED

sipserver intua map add

Add internal-external user agent connection

SYNTAX:

```
sipserver intua map add        intua = <{1|2|3|4|5|6|7|8|9|10|}>
                               extua = <{1|2|3|4|}>
```

where:

intua	The internal user agent	REQUIRED
extua	The external user agent	REQUIRED

sipserver intua map delete

Delete internal-external user agent connection

SYNTAX:

```
sipserver intua map delete       intua = <{1|2|3|4|5|6|7|8|9|10|}>
                                 extua = <{1|2|3|4|}>
```

where:

intua	The internal user agent	REQUIRED
extua	The external user agent	REQUIRED

sipserver intua map flush

Flush all internal-external user agent connections

sipserver intua map list

Show all internal-external user agent connections

SYNTAX:

sipserver intua map list	intua = <{all|1|2|3|4|5|6|7|8|9|10|}>

where:

intua	The internal user agent	REQUIRED

sipserver intua map modify

Modify internal-external user agent connection

SYNTAX:

```
sipserver intua map modify    intua = <{1|2|3|4|5|6|7|8|9|10|}>
                              extua = <{1|2|3|4|}>
                              newextua = <{1|2|3|4|}>
```

where:

intua	The internal user agent	REQUIRED
extua	The external user agent	REQUIRED
newextua	The external user agent	REQUIRED

sipserver intua modify

Modify internal user agent

SYNTAX:

```
sipserver intua modify        id = <>
                              [aor = <string]>
                              [username = <string]>
                              [password = <password]>
                              [status = <{disabled|enabled}]>
```

where:

id	The external ua identifier	REQUIRED
aor	The SIP URI related to this Address-Of-Record	OPTIONAL
username	The authentication username related to this Address-Of-Record	OPTIONAL
password	The authentication password related to this Address-Of-Record	OPTIONAL
status	The status of the external user agent	OPTIONAL

sipserver outbproxy add

Add outbound proxy

SYNTAX:

`sipserver outbproxy add`	`id = <{1|2|3|4|}>`
	`[address = <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|nfds|nicname|nntp|`
	`ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd|`
	`realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|`
	`snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|`
	`sunrpc|syslog|systat|talk|telnet|...} or`
	`number]>`

where:

id	The outbound proxy id	REQUIRED
address	The outbound proxy address	OPTIONAL
port	The outbound proxy port	OPTIONAL

sipserver outbproxy delete

Delete outbound proxy

SYNTAX:

```
sipserver outbproxy delete        id = <>
```

where:

id	The outbound proxy id	REQUIRED

sipserver outbproxy flush

Flush all outbound proxy's

sipserver outbproxy list

Show all outbound proxy's

SYNTAX:

sipserver outbproxy list	id = <{all|...}>

where:

id	The outbound proxy id	REQUIRED

sipserver outbproxy modify

Modify outbound proxy

SYNTAX:

```
sipserver outbproxy modify    id = <>
                              [newid = <{1|2|3|4|}]>
                              [address = <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|nfds|nicname|nntp|
                              ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd|
                              realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                              snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                              sunrpc|syslog|systat|talk|telnet|...} or
                              number]>
```

where:

id	The outbound proxy id	REQUIRED
newid	The new outbound proxy id	OPTIONAL
address	The outbound proxy address	OPTIONAL
port	The outbound proxy port	OPTIONAL

sipserver outbreg add

Add outbound registrar

SYNTAX:

`sipserver outbreg add`	`id = <{1|2|3|4|}>`
	 `[address = <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|nfds|nicname|nntp|`
	 `ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd|`
	 `realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|`
	 `snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|`
	 `sunrpc|syslog|systat|talk|telnet|...} or`
	 `number]>`

where:

id	The outbound registrar id	REQUIRED
address	The outbound registrar address	OPTIONAL
port	The outbound registrar port	OPTIONAL

sipserver outbreg delete

Delete outbound registrar

SYNTAX:

```
sipserver outbreg delete        id = <>
```

where:

id	The outbound registrar id	REQUIRED

sipserver outbreg flush

Flush all outbound registrars

sipserver outbreg list

Show all outbound registrars

SYNTAX:

sipserver outbreg list	id = <{all|...}>

where:

id	The outbound registrar id	REQUIRED

sipserver outbreg modify

Modify outbound registrar

SYNTAX:

```
sipserver outbreg modify        id = <>
                                [newid = <{1|2|3|4|}]>
                                [address = <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|nfds|nicname|nntp|
                                ntalk|ntp|pcmail-srv|pop2|pop3|printer|qotd|
                                realaudio|rip|rtelnet|rtsp|sip|smtp|snmp|
                                snmptrap|snpp|sntp|sql*net|sql-net|sqlserv|
                                sunrpc|syslog|systat|talk|telnet|...} or
                                number]>
```

where:

id	The outbound registrar id	REQUIRED
newid	The new outbound registrar id	OPTIONAL
address	The outbound registrar address	OPTIONAL
port	The outbound registrar port	OPTIONAL

sipserver registrar bind add

Add interface

SYNTAX:

`sipserver registrar bind add`	`intf = <{Internet|LocalNetwork}>`
	`[sipport = <{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|nfds|`
	`nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|`
	`printer|qotd|realaudio|rip|rtelnet|rtsp|sip|`
	`smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-`
	`net|sqlserv|sunrpc|syslog|systat|talk|...}`
	`ornumber]>`

where:

intf	The LAN interface name	REQUIRED
sipport	The LAN SIP port number	OPTIONAL

sipserver registrar bind delete

Delete interface

SYNTAX:

```
sipserver registrar bind          intf = <{}>
delete
```

where:

intf	The LAN interface name	REQUIRED

sipserver registrar bind flush

Flush all interfaces

sipserver registrar bind list

Show all interfaces

SYNTAX:

```
sipserver registrar bind list   itf = <{all}>
```

where:

itf	The LAN interface name	REQUIRED

sipserver registrar config

Configure registrar

SYNTAX:

```
sipserver registrar config        [mode = <{process|snoop}>]
                                  [registerexpire = <number{0-31536000}>]
```

where:

mode	The registrar mode (process|snoop)	OPTIONAL
registerexpire	The register expiry time	OPTIONAL

sipserver registrar loc list

Show the location database

SYNTAX:

sipserver registrar loc list   id = <{all|...}>

where:

id	The SIP URI related to this Address-Of-Record	REQUIRED

sntp Commands

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 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 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 list

List the NTP servers

software Commands

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.

syslog Commands

syslog config

Set/Display configuration

SYNTAX:

syslog config	[activate = <{disabled|enabled}]> [timeout = <number{0-60}]> [format = <{standard|welf}]>

where:

activate	Syslog send to collectors enabled.	OPTIONAL
timeout	Syslog flooding timeout (in secs) to collectors.	OPTIONAL
format	Syslog contents format	OPTIONAL

syslog flush

Flushes syslog rules.

syslog list

List the current syslog configuration

syslog msgbuf flush

Flush all messages in syslog message buffer.

syslog msgbuf send

Send messages to remote syslog server.

SYNTAX:

syslog msgbuf send	[fac = <{kern|user|mail|daemon|auth|syslog| lpr|news|uucp|cron|security|ftp|local6| local7}]> [sev = <{emerg|alert|crit|err|warning|notice| info|debug}]> [hist = <{disabled|enabled}]> dest = <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

syslog msgbuf show

Show messages in the syslog message buffer.

SYNTAX:

`syslog msgbuf show`	`[fac = <{kern|user|mail|daemon|auth|syslog|`
	`lpr|news|uucp|cron|security|ftp|local6|`
	`local7}]>`
	`[sev = <{emerg|alert|crit|err|warning|notice|`
	`info|debug}]>`
	`[hist = <{disabled|enabled}]>`

where:

fac	Syslog facility level.	OPTIONAL
sev	Syslog severity level.	OPTIONAL
hist	Syslog display message history (over several bootups)	OPTIONAL

syslog ruleadd

Add a new rule to the syslog configuration.

SYNTAX:

`syslog ruleadd`	`fac = <{kern|user|mail|daemon|auth|syslog|lpr|`
	`news|uucp|cron|security|ftp|local6|local7|all`
	`or comma-seperated }>`
	`sev = <{emerg|alert|crit|err|warning|notice|`
	`info|debug}>`
	`dest = <ip-address>`

where:

fac	Syslog rule facility.	REQUIRED
sev	Syslog rule severity.	REQUIRED
dest	Syslog rule destination: an ip-address.	REQUIRED

syslog ruledelete

Delete a rule in the syslog configuration

SYNTAX:

syslog ruledelete	rule_index = <number{1-16}>

where:

rule_index	Syslog rule index.	REQUIRED

system Commands

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 ralative 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|mmddyyyy|mmddyy}]> [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 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

tls Commands

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

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

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 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 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)

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.

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 config

Modify the user.

SYNTAX:

```
user config                    name = <{Administrator|tech}>
                               [password = <password]>
                               [role = <]>
                               [descr = <quoted string]>
                               [defuser = <{disabled|enabled}]>
                               [defremadmin = <{disabled|enabled}]>
                               [deflocadmin = <{disabled|enabled}]>
```

where:

name	User name.	REQUIRED
password	User password.	OPTIONAL
role	Role name.	OPTIONAL
descr	User description.	OPTIONAL
defuser	Set this user as the default user.	OPTIONAL
defremadmin	Set this user as the default remote administrator.	OPTIONAL
deflocadmin	Set this user as the default local administrator.	OPTIONAL

user delete

Delete a user.

SYNTAX:

user delete	name = <{Administrator|tech}>

where:

name	User name.	REQUIRED

user flush

Flush the users.

user list

Display the users.

SYNTAX:

user list	[name = <{Administrator|tech}]> [channel = <{ftp|telnet|http|mdap|serial}]> [origin = <{lan|wan|local}]> [secure = <{disabled|enabled}]>

where:

name	User name.	OPTIONAL
channel	The selected channel.	OPTIONAL
origin	The selected origin.	OPTIONAL
secure	The selected security level.	OPTIONAL

user rights

Display session rights.

voice Commands

voice cac config	Configure call admission control	see page 703
voice cac list	Show the call admission control	see page 704
voice codec config	Configure a CODEC capability	see page 705
voice codec dynamic config	Configure a dynamic CODEC capability	see page 706
voice codec dynamic list	Show the dynamic CODEC capability configuration	see page 707
voice codec list	Show the CODEC capability configuration	see page 708
voice config	Configure the general parameters	see page 709
voice country config	Configure country	see page 711
voice country countrylist	List available countries	see page 712
voice country list	Show the selected country	see page 713
voice debug exec	Execute a 'Trace & Debug' command. For qualified personnel only.	see page 714
voice dialplan add	Add an entry in the dialplan	see page 715
voice dialplan delete	Delete an entry in the dialplan	see page 716
voice dialplan flush	Delete all user-entered dialplan entries	see page 717
voice dialplan list	Display the complete dailplan	see page 718
voice dialplan modify	Modify an entry in the dialplan	see page 719
voice dns config	Configure DNS	see page 720
voice dns list	Show the DNS configuration	see page 721
voice fax config	Configure the fax parameters	see page 722
voice fax list	Show the fax configuration	see page 723
voice fxoport config	Configure the FXO port parameters	see page 724
voice fxoport list	Show the FXO port configuration	see page 725
voice fxsport config	Configure the FXS port parameters	see page 726
voice fxsport list	Show the FXS port configuration	see page 727
voice list	Display the general parameters	see page 728

voice services assign_pxsc	Assign a servicecode to a supplementary service in non_standard mode	see page 756
voice services config	General supplementary service configuration	see page 757
voice services deactivate	Deactivate a supplementary service	see page 758
voice services flush	Flush all supplementary services	see page 759
voice services list	Show the supplementary service configuration	see page 760
voice services provision	Provision a supplementary service	see page 761
voice services servicelist	Show the supplementary service configuration	see page 762
voice services soc config	General switching order configuration	see page 763
voice services soc list	Show the switching order configuration	see page 764
voice services soc modify	Configure switching order codes	see page 765
voice services soc soclist	Show the switching order codes	see page 766
voice services withdraw	Withdraw a supplementary service	see page 767
voice sip config	Configure the SIP general parameters	see page 768
voice sip list	Display the SIP general parameters	see page 772
voice sip responsemap add	Add a SIP response	see page 773
voice sip responsemap delete	Delete a SIP response	see page 774
voice sip responsemap flush	Flush all SIP responses	see page 775
voice sip responsemap list	Show all SIP responses	see page 776
voice sip responsemap modify	Modify a SIP response	see page 777
voice state	show VOIP service states	see page 778
voice tone descrtable add	Add tone description	see page 779
voice tone descrtable delete	Delete tone description	see page 780
voice tone descrtable flush	Flush all tone descriptions	see page 781
voice tone descrtable list	Show all tone descriptions	see page 782
voice tone descrtable modify	Modify tone description	see page 783
voice tone eventtable flush	Flush all tone events	see page 784
voice tone eventtable list	Show all tone events	see page 785

voice cac config

Configure call admission control

SYNTAX:

voice cac config	[max#portsperprofile = <{one|all}]>
where:	

max#portsperprofile	The maximum number of ports that can be used with a common profile	OPTIONAL

voice cac list

Show the call admission control

voice codec config

Configure a CODEC capability

SYNTAX:

`voice codec config`	`type = <{g711u|g711a|g722|g723_1|g726_16|`
	`g726_24|g726_32|g726_40|g729}>`
	`[ptime = <{10|30|20}]>`
	`[ptime_g723 = <{30}]>`
	`[vad = <{disabled|enabled}]>`
	`[priority = <number{1-10}]>`
	`[status = <{disabled|enabled}]>`

where:

type	The codec time	REQUIRED
ptime	The packet time	OPTIONAL
ptime_g723	The packet time	OPTIONAL
vad	Enable or disable Voice Activity Detection	OPTIONAL
priority	The codec capability priority	OPTIONAL
status	Enable or disable this capability	OPTIONAL

voice codec dynamic config

Configure a dynamic CODEC capability

SYNTAX:

voice codec dynamic config	type = <{rfc2833|g723_1|g726_16|g726_24|g726_32|g726_40}> payloadtype = <number{96-128}>

where:

type	The codec type	REQUIRED
payloadtype	The payload type	REQUIRED

voice codec dynamic list

Show the dynamic CODEC capability configuration

voice codec list

Show the CODEC capability configuration

voice config

Configure the general parameters

SYNTAX:

voice config	[autofxo = <{disabled|enabled}>]
	[digitrelay = <{auto|inband|rfc2833| signalling}>]
	[click2dial_ports = <{FXS1|FXS2|all}>]
	[rtp_portrange = <string>]
	[sign_internal = <{external|internal}>]
	[static_intf = <{disabled|enabled}>]
	[intf = <{loop|Internet|LocalNetwork}>]
	[secondintf = <{loop|Internet|LocalNetwork}>]
	[endofnumber = <{#|*|none}>]
	[countrycode = <number>]
	[delayeddisconnect = <{enabled|disabled}>]
	[delayeddisconnecttimer = <number>]
	[ringmuteduration = <number>]
	[nocallsetupmsg = <{never|unav-numb}>]
	[syslogscope = <{none|all|only-stats|only-dm-events|only-msgs}>]

where:

autofxo	Automatically make FXO calls when not registered	OPTIONAL
digitrelay	Set the digit relay mode	OPTIONAL
click2dial_ports	Set the click to dial port	OPTIONAL
rtp_portrange	The RTP port range <[startport]-[endport]>	OPTIONAL
sign_internal	Signalling for local calls is kept local or external	OPTIONAL
static_intf	Use a static (configured) interface to look for the IP address or not	OPTIONAL
intf	The name of a IP interface to be used for VOIP traffic.	OPTIONAL
secondintf	The name of a backup IP interface to be used for VOIP traffic.	OPTIONAL
endofnumber	The end of number character for dialled number starting with a cipher	OPTIONAL
countrycode	Local countrycode	OPTIONAL
delayeddisconnect	Enable or disable the delayed disconnect feature	OPTIONAL
delayeddisconnecttimer	Delayed disconnect timer (seconds)	OPTIONAL

ringmuteduration	Early media mute duration (in ms)	OPTIONAL
nocallsetupmsg	Send call setup message	OPTIONAL
syslogscope	Syslog Scope	OPTIONAL

voice country config

Configure country

SYNTAX:

voice country config	country = <{etsi|australia|belgium|chile| denmark|france1|france2|france3|germany|italy| netherlands|norway|northamerica|spain|sweden| uk}>

where:

country	Load this country's specific settings into the DSP	REQUIRED

voice country countrylist

List available countries

voice country list

Show the selected country

voice debug exec

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

SYNTAX:

voice debug exec	cmd = <quoted string>

where:

cmd	The debug command (or help)	REQUIRED

voice dialplan add

Add an entry in the dialplan

SYNTAX:

```
voice dialplan add          prefix = <string>
                            defaultport = <{FXS1|FXS2|FXO|VoIP|NA}>
                            fallbackport = <{FXS1|FXS2|FXO|VoIP|NA}>
                            priority = <{NA|Low|High}>
                            fallback = <{disabled|enabled}>
                            minimumdigits = <number{1-31}>
                            maximumdigits = <number{1-31}>
                            posofmodify = <number{0-31}>
                            remnumdigits = <number{0-31}>
                            [insert = <string]>
                            rescan = <{no|yes}>
                            data = <{no|yes}>
                            action = <{none|ROUTE_excl_eon|
                            ROUTE_incl_eon}>
```

where:

prefix	The prefix, identifies this entry	REQUIRED
defaultport	The default outgoing port	REQUIRED
fallbackport	The fallback outgoing port	REQUIRED
priority	The priority of the entry	REQUIRED
fallback	The fallback mechanism status of this entry	REQUIRED
minimumdigits	The minimum number of digits	REQUIRED
maximumdigits	The maximum number of digits	REQUIRED
posofmodify	Startposition at which a number of digits must be removed	REQUIRED
remnumdigits	The number of digits that need to be removed from the complete number	REQUIRED
insert	String which must be inserted at PosOfModify after removing RemNumDigits	OPTIONAL
rescan	Rescaning of the number needed or not	REQUIRED
data	This entry is used for data calls or not	REQUIRED
action	Action parameter	REQUIRED

voice dialplan delete

Delete an entry in the dialplan

SYNTAX:

voice dialplan delete	prefix = <string>

where:

prefix	The prefix, identifies this entry	REQUIRED

voice dialplan flush

Delete all user-entered dialplan entries

voice dialplan list

Display the complete dailplan

voice dialplan modify

Modify an entry in the dialplan

SYNTAX:

```
voice dialplan modify          prefix = <string>
                               newprefix = <string>
                               defaultport = <{FXS1|FXS2|FXO|VoIP|NA}>
                               fallbackport = <{FXS1|FXS2|FXO|VoIP|NA}>
                               priority = <{NA|Low|High}>
                               fallback = <{disabled|enabled}>
                               minimumdigits = <number{1-31}>
                               maximumdigits = <number{1-31}>
                               posofmodify = <number{0-31}>
                               remnumdigits = <number{0-31}>
                               [insert = <string>]
                               rescan = <{no|yes}>
                               data = <{no|yes}>
                               action = <{none|ROUTE_excl_eon|
                               ROUTE_incl_eon}>
```

where:

prefix	The prefix, identifies this entry	REQUIRED
newprefix	The prefix, identifies this entry	REQUIRED
defaultport	The default outgoing port	REQUIRED
fallbackport	The fallback outgoing port	REQUIRED
priority	The priority of the entry	REQUIRED
fallback	The fallback mechanism status of this entry	REQUIRED
minimumdigits	The minimum number of digits	REQUIRED
maximumdigits	The maximum number of digits	REQUIRED
posofmodify	Startposition at which a number of digits must be removed	REQUIRED
remnumdigits	The number of digits that need to be removed from the complete number	REQUIRED
insert	String which must be inserted at PosOfModify after removing RemNumDigits	OPTIONAL
rescan	Rescaning of the number needed or not	REQUIRED
data	This entry is used for data calls or not	REQUIRED
action	Action parameter	REQUIRED

voice dns config

Configure DNS

SYNTAX:

`voice dns config`	`[startentry = <{first|random}]>` `[maxentries = <number{1-24}]>`

where:

startentry	Entry to start with in the registration procedure	OPTIONAL
maxentries	Maximum nbr of used entries in a DNS response	OPTIONAL

voice dns list

Show the DNS configuration

voice fax config

Configure the fax parameters

SYNTAX:

voice fax config	[detect_timeout = <number{0-120}]> [early-detect-faxmodem = <{enabled|disabled}]> [transport = <{inband_auto|inband_reneg|t38}]> [udptl_redun = <number{0-3}]>

where:

detect_timeout	The time-out in seconds used to detect FAX(0 is no time-out)	OPTIONAL
early-detect-faxmodem	Detect fax or modem early	OPTIONAL
transport	The type of fax transport	OPTIONAL
udptl_redun	The number of secondary IFP packets	OPTIONAL

voice fax list

Show the fax configuration

voice fxoport config

Configure the FXO port parameters

SYNTAX:

voice fxoport config	[fxodisconnect = <number{500-5000}]> [incfxodest = <{FXS|all|none}]>

where:

fxodisconnect	The FXO disconnect timer (in ms)	OPTIONAL
incfxodest	Select destination for incoming FXO calls	OPTIONAL

voice fxoport list

Show the FXO port configuration

voice fxsport config

Configure the FXS port parameters

SYNTAX:

```
voice fxsport config          [interdigit = <number{10-30000}]>
                              [interdigitOpen = <number{10-30000}]>
```

where:

interdigit	The interdigit timer (in ms)	OPTIONAL
interdigitOpen	The closed number interdigit timer (in ms)	OPTIONAL

voice fxsport list

Show the FXS port configuration

voice list

Display the general parameters

voice numbtransl config

Configure number translation

SYNTAX:

voice numbtransl config	[Globalnumbpostprocess = <{disabled|enabled}]>

where:

Globalnumbpostprocess	Enables or disables the number postprocessing	OPTIONAL

voice numbtransl list

Show the number translation

voice profile add

Add profile

SYNTAX:

```
voice profile add          SIP_URI = <string>
                           [username = <string]>
                           [password = <password]>
                           [displayname = <quoted string]>
                           voiceport = <{FXS1|FXS2|COMMON}>
                           [abbr = <string]>
                           [enable = <{disabled|enabled}]>
```

where:

SIP_URI	The SIP URI related to this voice port	REQUIRED
username	The authentication username related to this voice port	OPTIONAL
password	The authentication password related to this voice port	OPTIONAL
displayname	An alias name for the SIP_URI	OPTIONAL
voiceport	The analogue line number	REQUIRED
abbr	An abbriviated number that will be mapped to the SIP_URI	OPTIONAL
enable	Enable or disable this profile	OPTIONAL

voice profile delete

Delete profile

SYNTAX:

voice profile delete	SIP_URI = <string>

where:

SIP_URI	The SIP URI related to this voice port	REQUIRED

voice profile flush

Flush all profiles

voice profile list

Show all profiles

voice profile modify

Modify profile

SYNTAX:

```
voice profile modify          SIP_URI = <string>
                              NEW_URI = <string>
                              [username = <string>]
                              [password = <password>]
                              [displayname = <quoted string>]
                              voiceport = <{FXS1|FXS2|COMMON}>
                              [abbr = <string>]
                              [enable = <{disabled|enabled}>]
```

where:

SIP_URI	The SIP URI related to this voice port	REQUIRED
NEW_URI	The SIP URI related to this voice port	REQUIRED
username	The authentication username related to this voice port	OPTIONAL
password	The authentication password related to this voice port	OPTIONAL
displayname	An alias name for the SIP_URI	OPTIONAL
voiceport	The analogue line number	REQUIRED
abbr	An abbriviated number that will be mapped to the SIP_URI	OPTIONAL
enable	Enable or disable this profile	OPTIONAL

voice qos config

Configure the QOS parameters

SYNTAX:

voice qos config	type = <{Signaling|Realtime}> qosfield = <{DSCP|precedence}> dscp = <{ef|af11|af12|af13|af21|af22|af23| af31|af32|af33|af41|af42|af43|cs0|cs1|cs2|cs3| cs4|cs5|cs6|cs7} or number> precedence = <{routine|priority|immediate| flash|flash-override|CRITIC-ECP|internetwork- control|network-control} or number>

where:

type	The type of traffic that needs qos	REQUIRED
qosfield	The QOS field to be used	REQUIRED
dscp	The DSCP value	REQUIRED
precedence	The precedence value	REQUIRED

voice qos list

Show the QOS configuration

voice ringing descrtable add

Add a ringing description

SYNTAX:

```
voice ringing descrtable add    ringid = <number>
                                status = <{disabled|enabled}>
                                ringname = <quoted string>
                                [patternentryid = <number]>
                                maxduration = <number>
```

where:

ringid	Ring ID	REQUIRED
status	Enable or disable this ringing	REQUIRED
ringname	Name of the ringing	REQUIRED
patternentryid	Entry ID in pattern table	OPTIONAL
maxduration	Max. duration	REQUIRED

voice ringing descrtable delete

Delete a ringing descrtion

SYNTAX:

```
voice ringing descrtable        ringid = <number>
delete
```

where:

ringid	Ring ID	REQUIRED

voice ringing descrtable flush

Flush all ringing descriptions

voice ringing descrtable list

Show all ringing descriptions

SYNTAX:

```
voice ringing descrtable list   profile = <string>
```

where:

profile	Profile on which future ringing operations must be done	REQUIRED

voice ringing descrtable modify

Modify ring description

SYNTAX:

```
voice ringing descrtable        ringid = <number>
modify                          [status = <{disabled|enabled}]>
                                [ringname = <quoted string]>
                                [patternentryid = <number]>
                                [maxduration = <number]>
```

where:

ringid	Ring ID	REQUIRED
status	Enable or disable this ringing	OPTIONAL
ringname	Name of the ringing	OPTIONAL
patternentryid	Entry ID in pattern table	OPTIONAL
maxduration	Max. duration	OPTIONAL

voice ringing descrtable set

Set a specific profile for future ringing modifications (current value = all)

SYNTAX:

```
voice ringing descrtable set    profile = <string>
```

where:

profile	Profile on which future ringing operations must be done	REQUIRED

voice ringing eventtable flush

Flush all ringing events

voice ringing eventtable list

Show all ringing events

SYNTAX:

```
voice ringing eventtable list   profile = <string>
```

where:

profile	Profile on which future ringing operations must be done	REQUIRED

voice ringing eventtable modify

Modify a ringing event

SYNTAX:

```
voice ringing eventtable        eventid = <number>
modify                          ringid = <number>
```

where:

eventid	Event ID	REQUIRED
ringid	Ring ID	REQUIRED

voice ringing eventtable set

Set a specific profile for future ringing modifications (current value = all)

SYNTAX:

```
voice ringing eventtable set    profile = <string>
```

where:

profile	Profile on which future ringing operations must be done	REQUIRED

voice ringing patterntable add

Add a ringing pattern

SYNTAX:

```
voice ringing patterntable add  id = <number>
                                ringing = <{off|on}>
                                duration = <number>
                                [nextentry = <number]>
```

where:

id	ID of the ring pattern	REQUIRED
ringing	Enable or disable this ring	REQUIRED
duration	Duration (ms)	REQUIRED
nextentry	Next pattern entry	OPTIONAL

voice ringing patterntable delete

Delete a ringing pattern

SYNTAX:

```
voice ringing patterntable      id = <number>
delete
```

where:

id	ID of the ring pattern	REQUIRED

voice ringing patterntable flush

Flush all ringing patterns

voice ringing patterntable list

Show all ringing patterns

SYNTAX:

voice ringing patterntable list	profile = <string>

where:

profile	Profile on which future ringing operations must be done	REQUIRED

voice ringing patterntable modify

Modify a ringing pattern

SYNTAX:

```
voice ringing patterntable      id = <number>
modify                          [ringing = <{off|on}]>
                                [duration = <number]>
                                [nextentry = <number]>
```

where:

id	ID of the ring pattern	REQUIRED
ringing	Enable or disable this ring	OPTIONAL
duration	Duration (ms)	OPTIONAL
nextentry	Next pattern entry	OPTIONAL

voice ringing patterntable set

Set a specific profile for future ringing modifications (current value = all)

SYNTAX:

```
voice ringing patterntable set  profile = <string>
```

where:

profile	Profile on which future ringing operations must be done	REQUIRED

voice services activate

Activate a supplementary service

SYNTAX:

voice services activate	type = <{transfer|hold|waiting|mwi|clip|clir| 3pty|forcedFXO|cfu|cfnr|cfbs}>

where:

type	The supplementary service type	REQUIRED

voice services assign

Assign a servicecode to a supplementary service in standard mode

SYNTAX:

voice services assign	type = <{transfer|hold|waiting|mwi|clip|clir| 3pty|forcedFXO|cfu|cfnr|cfbs|callreturn|ccbs}> servicecode = <string>

where:

type	The supplementary service type	REQUIRED
servicecode	The service activation code	REQUIRED

voice services assign_pxsc

Assign a servicecode to a supplementary service in non_standard mode

SYNTAX:

voice services assign_pxsc	type = <{transfer|hold|waiting|mwi|clip|clir|3pty|forcedFXO|cfu|cfnr|cfbs|callreturn|ccbs|clironcall|waitingoncall}> action = <{activate|deactivate|interrogate}> action_oncall = <{activate|deactivate}> action_cf = <{activate|deactivate|register|activate_and_register|interrogate}> action_act = <{activate}> servicecode = <string>

where:

type	The supplementary service type	REQUIRED
action	The supplementary service action	REQUIRED
action_oncall	The supplementary service action	REQUIRED
action_cf	The supplementary service action	REQUIRED
action_act	The supplementary service action	REQUIRED
servicecode	The service code	REQUIRED

voice services config

General supplementary service configuration

SYNTAX:

`voice services config`	`[mwi_phone = <{immediate|deferred|both}]>`
	`[mwi_network = <{sollicited|unsollicited}]>`
	`[prefix_servcode = <{standard|nonstandard}]>`
	`[servcode_cmd = <{standard|nonstandard}]>`
	`[cfu_dest = <string>]`
	`[cfnr_timer = <number{0-600}]>`
	`[cfnr_dest = <string>]`
	`[cfbs_dest = <string>]`
	`[hfhf_feature = <{disabled|enabled}]>`
	`[cw_reject_persistence = <{disabled|enabled}]>`
	`[cw_timer = <number{0-120}]>`

where:

mwi_phone	The way the phone reacts on a message waiting indication	OPTIONAL
mwi_network	The way the network protocol implements the message waiting indication service	OPTIONAL
prefix_servcode	The way the service codes are assigned	OPTIONAL
servcode_cmd	The way the service code command is used	OPTIONAL
cfu_dest	The destination for the CFU service	OPTIONAL
cfnr_timer	The CFNR timer value	OPTIONAL
cfnr_dest	The destination for the CFNR service	OPTIONAL
cfbs_dest	The destination for the CFBS service	OPTIONAL
hfhf_feature	Enable/disable hfhf_feature	OPTIONAL
cw_reject_persistence	Enable/disable cw_reject_persistence	OPTIONAL
cw_timer	The CW timer value	OPTIONAL

voice services deactivate

Deactivate a supplementary service

SYNTAX:

voice services deactivate	type = <{transfer|hold|waiting|mwi|clip|clir|3pty|forcedFXO|cfu|cfnr|cfbs}>

where:

type	The supplementary service type	REQUIRED

voice services flush

Flush all supplementary services

voice services list

Show the supplementary service configuration

voice services provision

Provision a supplementary service

SYNTAX:

voice services provision	type = <{transfer|hold|waiting|mwi|clip|clir|3pty|forcedFXO|cfu|cfnr|cfbs|callreturn|ccbs}>

where:

type	The supplementary service type	REQUIRED

voice services servicelist

Show the supplementary service configuration

voice services soc config

General switching order configuration

SYNTAX:

`voice services soc config`	`[Registerrecalltimer = <number{0-60}]>`

where:

Registerrecalltimer	The Register recall timer value in seconds	OPTIONAL

voice services soc list

Show the switching order configuration

voice services soc modify

Configure switching order codes

SYNTAX:

`voice services soc modify`	`function = <{HoldActiveCallAndEnableCallSetup|NoActiveCallRetrieveHeld}>` `SOC = <{HF|HF1|HF2|HFTO|HFTOorHF2}>`

where:

function	Switching function	REQUIRED
SOC	Switching order code	REQUIRED

voice services soc soclist

Show the switching order codes

voice services withdraw

Withdraw a supplementary service

SYNTAX:

voice services withdraw	type = <{transfer|hold|waiting|mwi|clip|clir|3pty|forcedFXO|cfu|cfnr|cfbs|callreturn|ccbs}>

where:

type	The supplementary service type	REQUIRED

voice sip config

Configure the SIP general parameters

SYNTAX:

```
voice sip config          [useragentdomain = <string]>
                          [primproxyaddr = <string]>
                          [secproxyaddr = <string]>
                          [proxyport = <{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|nfds|
                          nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                          printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                          smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                          net|sqlserv|sunrpc|syslog|systat|talk|...}
                          ornumber]>
                          [secproxyport = <{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|nfds|
                          nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                          printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                          smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-net|
                          sqlserv|sunrpc|syslog|systat|talk|...} or
                          number]>
                          [primregaddr = <string]>
                          [secregaddr = <string]>
                          [regport = <{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|nfds|
                          nicname|nntp|ntalk|ntp|pcmail-srv|pop2|pop3|
                          printer|qotd|realaudio|rip|rtelnet|rtsp|sip|
                          smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
                          net|sqlserv|sunrpc|syslog|systat|talk|...}
                          ornumber]>
                          [regexpire = <number{60-65535}]>
                          [regexpire_Tbefore = <number{1-60}]>
                          [notifier_addr = <string]>
                          [notifier_port = <{at-echo|at-nbp|at-rtmp|at-
                          zis|auth|bgp|biff|bootpc|echo|exec|finger|
                          ftp|ftp-data|gopher|h323|httpproxy|ike|ils|
                          imap2|imap3|ingres-net|ipcserver|ipx|irc-o|
                          irc-u|kerberos|ldap|login|netbios-dgm|netbios-
```

```
ns|netbios-ssn|netwall|netware-ip|new-rwho|
nfds|nicname|nntp|ntalk|ntp|pcmail-srv|pop2|
pop3|printer|qotd|realaudio|rip|rtelnet|rtsp|
sip|smtp|snmp|snmptrap|snpp|sntp|sql*net|sql-
net|sqlserv|sunrpc|syslog|systat|talk|...} or
number]>
[subscribe_expire = <number{60-65535}]>
[CWreply = <{182|180}]>
[transport = <{UDP|TCP}]>
[rtpmapstaticPT = <{disabled|enabled}]>
[reinvite_stop_audio = <{disabled|enabled}]>
[PRACK = <{disabled|enabled}]>
[clirformat = <{standard|nonstandard}]>
[DTMF*#inINFO = <{*#|1011}]>
[clip_consider_displayname = <{no|yes}]>
[sdp_ptime = <{10|20|30|notsent}]>
[replace# = <{enabled|disabled}]>
[symmetriccodec = <{enabled|disabled}]>
[reinvite_at_cgfax_detect = <{enabled|
disabled}]>
[SIPURI_port = <{enabled|disabled}]>
[rport = <{enabled|disabled}]>
[SDP_username = <string]>
[ringtoneat183 = <{disabled|enabled}]>
[t38portincrement = <number{0-65535}]>
[ping = <number{0-86400}]>
[min-se = <number{0-604800}]>
[session-expires = <number{0-604800}]>
[expires = <number{0-3600}]>
[register-backoff-timer = <number{0-86400}]>
[stickyoutbproxy = <{disabled|enabled}]>
[privacy = <{ignore|strict|loose}]>
[SDP_username_per_UA = <{disabled|enabled}]>
[stop_register_on_403 = <{disabled|enabled}]>
```

where:

useragentdomain	User Agent domain	OPTIONAL
primproxyaddr	Primary outbound proxy address or FQDN	OPTIONAL
secproxyaddr	Secondary outbound proxy address or FQDN	OPTIONAL
proxyport	Primary outbound proxy port	OPTIONAL
secproxyport	Secondary outbound proxy port	OPTIONAL
primregaddr	Primary registrar address or domain	OPTIONAL
secregaddr	Secondary registrar address or domain	OPTIONAL
regport	Registrar port	OPTIONAL
regexpire	The registration expire time	OPTIONAL

regexpire_Tbefore	Time to send new registration request before registration expires	OPTIONAL
notifier_addr	Notifier address or FQDN used for MWI	OPTIONAL
notifier_port	Notifier port used for MWI	OPTIONAL
subscribe_expire	The subscription expire time	OPTIONAL
CWreply	The reply to be sent for a waiting call (180/182)	OPTIONAL
transport	The transport type	OPTIONAL
rtpmapstaticPT	Enable or disable adding RTP map i.c.o. static PT	OPTIONAL
reinvite_stop_audio	Explicitly stop audio stream in the SDP when sending a re-invite	OPTIONAL
PRACK	Enable or disable Provisional ACK on provisional responses	OPTIONAL
clirformat	The clir format	OPTIONAL
DTMF*#inINFO	Format used for */# in INFO method	OPTIONAL
clip_consider_displayname	Consider the displayname for CLIP or not	OPTIONAL
sdp_ptime	The packet time used in the SDP message	OPTIONAL
replace#	Enable or disable the # in INVITE to be replaced by %23	OPTIONAL
symmetriccodec	Enable or disable symmetric codecs	OPTIONAL
reinvite_at_cgfax_detect	Send re_invite when calling fax is detected	OPTIONAL
SIPURI_port	Enable or disable the SIPURI port	OPTIONAL
rport	Enable or disable the parameter rport	OPTIONAL
SDP_username	SDP user name	OPTIONAL
ringtoneat183	Enable or disable local ringing when 183 SESSION PROGRESS is received	OPTIONAL
t38portincrement	Offset of T38 port number vs RTP port number.	OPTIONAL
ping	Time between two keepalive ping requests.	OPTIONAL
min-se	The minimum session expires timer.	OPTIONAL
session-expires	The session expires timer.	OPTIONAL
expires	The INVITE expires timer.	OPTIONAL
register-backoff-timer	Fixed backoff timer in registration procedure	OPTIONAL
stickyoutbproxy	Outband proxy lock over transactions	OPTIONAL

privacy	The privacy type can be ignore, strict or loose.	OPTIONAL
SDP_username_per_UA	SDP user name per ua	OPTIONAL
stop_register_on_403	Stop register on 403	OPTIONAL

voice sip list

Display the SIP general parameters

voice sip responsemap add

Add a SIP response

SYNTAX:

voice sip responsemap add	responsecode = <string>
	tone = <{dial|none|remotecallhold|callhold|
	remotecallwaiting|callwaiting|specialdial|
	stutterdial}>
	[textmessage = <quoted string>]

where:

responsecode	SIP Response Code	REQUIRED
tone	Tone to be played	REQUIRED
textmessage	Text message to display	OPTIONAL

voice sip responsemap delete

Delete a SIP response

SYNTAX:

```
voice sip responsemap delete    responsecode = <{1xx|180|181|182|183|2xx|3xx|
                                4xx|486|5xx|6xx}>
```

where:

responsecode	SIP Response Code	REQUIRED

voice sip responsemap flush

Flush all SIP responses

voice sip responsemap list

Show all SIP responses

voice sip responsemap modify

Modify a SIP response

SYNTAX:

```
voice sip responsemap modify    responsecode = <{1xx|180|181|182|183|2xx|3xx|
                                4xx|486|5xx|6xx}>
                                [tone = <{dial|none|remotecallhold|callhold|
                                remotecallwaiting|callwaiting|specialdial|
                                stutterdial}]>
                                [textmessage = <quoted string>]
```

where:

responsecode	SIP Response Code	REQUIRED
tone	Tone to be played	OPTIONAL
textmessage	Text message to display	OPTIONAL

voice state

show VOIP service states

voice tone descrtable add

Add tone description

SYNTAX:

```
voice tone descrtable add        tone = <string>
                                 status = <{disabled|enabled}>
                                 delay = <number>
                                 [patternentryid = <number]>
                                 [file = <string]>
                                 [filerepeat = <number]>
                                 text = <quoted string>
                                 [maxduration = <number]>
                                 [nexttone = <string]>
                                 repeatafter = <number>
```

where:

tone	Name of the tone	REQUIRED
status	Enable or disable this tone	REQUIRED
delay	Delay (in ms)	REQUIRED
patternentryid	Entry ID in pattern table	OPTIONAL
file	Audio file name	OPTIONAL
filerepeat	File repetitions	OPTIONAL
text	Text to display on the phone	REQUIRED
maxduration	Max. duration	OPTIONAL
nexttone	Name of the tone	OPTIONAL
repeatafter	Time after which the tone must be repeated (in ms)	REQUIRED

voice tone descrtable delete

Delete tone description

SYNTAX:

```
voice tone descrtable delete    tone = <{}>
```

where:

tone	Name of the tone	REQUIRED

voice tone descrtable flush

Flush all tone descriptions

voice tone descrtable list

Show all tone descriptions

voice tone descrtable modify

Modify tone description

SYNTAX:

```
voice tone descrtable modify    tone = <{dial|none|remotecallhold|callhold|
                                remotecallwaiting|callwaiting|specialdial|
                                stutterdial}>
                                [status = <{disabled|enabled}]>
                                [delay = <number]>
                                [patternentryid = <number]>
                                [file = <string]>
                                [filerepeat = <number]>
                                [text = <string]>
                                [maxduration = <number]>
                                [nexttone = <string]>
                                [repeatafter = <number]>
```

where:

tone	Name of the tone	REQUIRED
status	Enable or disable this tone	OPTIONAL
delay	Delay (in ms)	OPTIONAL
patternentryid	Entry ID in pattern table	OPTIONAL
file	Audio file name	OPTIONAL
filerepeat	File repetitions	OPTIONAL
text	Text to display on the phone	OPTIONAL
maxduration	Max. duration	OPTIONAL
nexttone	Name of the tone	OPTIONAL
repeatafter	Time after which the tone must be repeated (in ms)	OPTIONAL

voice tone eventtable flush

Flush all tone events

voice tone eventtable list

Show all tone events

voice tone eventtable modify

Modify tone event

SYNTAX:

```
voice tone eventtable modify    eventid = <{1|2|3|4|5|6|7|8|9|10|101|102|103|
                                104|105|106|107|108|201|202|203|301|302|303|
                                304|305|401|402|403|404|406|407|501|502|503|
                                999}>
                                tone = <{dial|none|remotecallhold|callhold|
                                remotecallwaiting|callwaiting|specialdial|
                                stutterdial}>
```

where:

eventid	Event ID	REQUIRED
tone	Tone to play for this event	REQUIRED

voice tone patterntable add

Add tone pattern

SYNTAX:

```
voice tone patterntable add    id = <number>
                               tone = <{off|on}>
                               [freq1 = <number>]
                               [power1 = <number>]
                               [freq2 = <number>]
                               [power2 = <number>]
                               [freq3 = <number>]
                               [power3 = <number>]
                               [freq4 = <number>]
                               [power4 = <number>]
                               [duration = <number>]
                               [nextentry = <number>]
                               [maxloops = <number>]
                               [nextentryafterloops = <number>]
```

where:

id	ID of the tone pattern	REQUIRED
tone	Enable or disable this tone	REQUIRED
freq1	Frequency 1	OPTIONAL
power1	Power 1	OPTIONAL
freq2	Frequency 2	OPTIONAL
power2	Power 2	OPTIONAL
freq3	Frequency 3	OPTIONAL
power3	Power 3	OPTIONAL
freq4	Frequency 4	OPTIONAL
power4	Power 4	OPTIONAL
duration	Duration (ms)	OPTIONAL
nextentry	Next pattern entry	OPTIONAL
maxloops	Max loops	OPTIONAL
nextentryafterloops	Next entry after loops	OPTIONAL

voice tone patterntable delete

Delete tone pattern

SYNTAX:

```
voice tone patterntable delete  id = <{}>
                                [endentryid = <{}]>
```

where:

id	ID of the tone pattern	REQUIRED
endentryid	ID of the tone pattern	OPTIONAL

voice tone patterntable flush

Flush all tone patterns

voice tone patterntable list

Show all tone patterns

voice tone patterntable modify

Modify tone pattern

SYNTAX:

```
voice tone patterntable modify  id = <{}>
                                [tone = <{off|on}]>
                                [freq1 = <number>]
                                [power1 = <number>]
                                [freq2 = <number>]
                                [power2 = <number>]
                                [freq3 = <number>]
                                [power3 = <number>]
                                [freq4 = <number>]
                                [power4 = <number>]
                                [duration = <number>]
                                [nextentry = <number>]
                                [maxloops = <number>]
                                [nextentryafterloops = <number>]
```

where:

id	ID of the tone pattern	REQUIRED
tone	Enable or disable this tone	OPTIONAL
freq1	Frequency 1	OPTIONAL
power1	Power 1	OPTIONAL
freq2	Frequency 2	OPTIONAL
power2	Power 2	OPTIONAL
freq3	Frequency 3	OPTIONAL
power3	Power 3	OPTIONAL
freq4	Frequency 4	OPTIONAL
power4	Power 4	OPTIONAL
duration	Duration (ms)	OPTIONAL
nextentry	Next pattern entry	OPTIONAL
maxloops	Max loops	OPTIONAL
nextentryafterloops	Next entry after loops	OPTIONAL

wireless Commands

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 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>]
                               [apisolation = <{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
apisolation	ap isolation	OPTIONAL
any	public network	OPTIONAL
secmode	security mode	OPTIONAL
WEPkey	WEP key: expected format 5 or 13 ASCII characters, or 10 or 26 HEX digits.	OPTIONAL
WPAPSKkey	WPA-PSK key: expected format 8 to 63 ASCII characters or 64 HEX digits.	OPTIONAL
WPAPSKversion	wpa version	OPTIONAL
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 unicat 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

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 deltinfo

Dual Ended Line Test result display

xdsl Commands

xdsl debug modemoptioninfo

The modem options bitmap display

836

E-DOC-CTC-20071119-0011 v1.0

xdsl debug multimode

Config custom multimode

SYNTAX:

xdsl debug multimode	[config = <[+/-]flag[+/-flag...]{default ETSI g992.1_annex_b g992.3_annex_b g992.5_annex_b}]>

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.

THOMSON
images & beyond