



CLI Command instructions for
Solwise SAR110
ADSL Router

Please Note: Incorrect usage of CLI commands can seriously damage the firmware settings and configuration of your router to the extent where you might be unable to reset/restore to an operable state. We reserve the right to charge for any faulty router returned for repair which has user corrupted firmware or settings.

Mar 25, 2003

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1 Introduction

1.1 How to Use this Manual

The document is organized as follows:

Chapter 1, About this Manual, describes the target audience of this document, lists document conventions and related documents.

Chapter 2, Command Reference, broadly groups all the CLI commands based on features.

Chapter 3, Command Listing, describes each CLI command, parameters and output fields in detail, with examples.

Chapter 4, Quick Reference helps you look up commands at a glance, with a quick look at the related parameters.

1.2 Document and Notational Conventions

- ❖ Keywords (words you must enter exactly as shown) are represented in Bold Italic.
- ❖ User specified values in a command are shown in regular typeface (that is, they are not bold and not italic). For example,

```
create alg port portno port-no [prot {any|tcp|udp|<prot-number>}]  
algtype {ftp|snmp|ra|rcmd|l2tp|mirc|icq|  
cuseeme|h323_q931|h323_ras}
```

Here, “port-no” will carry the user specified value.

- ❖ Parameter values enclosed in < > must be specified.
- ❖ Parameters enclosed in [] are optional.
- ❖ Parameter values are separated by a vertical bar (|) when only one of the specified values value can be used (you can use only one).
- ❖ Parameter values are enclosed in { } when you *must* use one of the values specified.
- ❖ Parameters are enclosed in []+ to indicate that you can specify the parameter one or more times on the command line.
- ❖ Parameters are enclosed in []* to indicate that you can specify no values, one value, or multiple values.
- ❖ An asterisk (*) symbol in the description table for

parameters indicates a configuration-dependent maximum value. For example, in the command `create atm trfdesc`, the parameter `trfindex traffic-descriptor-index` has a valid value range of `1 - *`. Here, `*` indicates a configuration-dependent maximum value.

2 CLI Command Reference

This section lists commands according to features.

2.1 ALG Commands

Category	Commands
ALG Type	<i>get alg type</i>
Port ALG	<i>create alg port</i> <i>delete alg port</i> <i>get alg port</i>

2.2 ATM Commands

Category	Commands
1483 Statistics	<i>get atm 1483 stats</i>
AAL5 VC Statistics	<i>get atm aal5 stats</i> <i>reset atm aal5 stats</i>
IP over ATM Interface	<i>create ipoa intf</i> <i>delete ipoa intf</i> <i>get ipoa intf</i> <i>modify ipoa intf</i>
OAM Loopback	<i>get oam lpbk vc</i> <i>modify oam lpbk vc</i>
OAM F5CC	<i>modify oam cc vc</i> <i>get oam cc vc</i>
Switched Virtual Connection	<i>create atm svccfg</i> <i>delete atm svccfg</i> <i>get atm svccfg</i> <i>modify atm svccfg</i>
Traffic Descriptor	<i>create atm trfdesc</i> <i>delete atm trfdesc</i> <i>get atm trfdesc</i>
Virtual ATM Port	Interface: <i>create atm port</i> <i>delete atm port</i> <i>get atm port</i> <i>modify atm port</i> Statistics: <i>get atm stats</i> <i>reset atm stats</i>
Virtual Circuit	Interface: <i>create atm vc intf</i> <i>delete atm vc intf</i> <i>get atm vc intf</i> <i>modify atm vc intf</i> Statistics: <i>get atm vc stats</i> <i>reset atm vc stats</i>

2.3 AutoDetect Commands

Category	Commands
Global Configuration	<i>get autodetect cfg</i> <i>modify autodetect cfg</i>

2.4 Bridge Commands

Category	Commands
Global Configuration	<i>get bridge mode</i> <i>modify bridge mode</i>
Forwarding Table	<i>get bridge forwarding</i>
Information	<i>get bridge tbg info</i> <i>modify bridge tbg info</i> <i>reset bridge tbg stats</i>
Ports	Interface: <i>create bridge port intf</i> <i>delete bridge port intf</i> <i>get bridge port intf</i> Statistics: <i>get bridge port stats</i> <i>reset bridge port stats</i>
Static Entries	<i>create bridge static</i> <i>delete bridge static</i> <i>get bridge static</i> <i>modify bridge static</i>
STP	Global Configuration: <i>get stp global</i> <i>modify stp global</i> Port Configuration: <i>get stp port</i> <i>modify stp port</i> <i>reset stp stats</i> <i>reset stp port stats</i>

2.5 Bridge Router Autosense (BRAS) Commands

Category	Commands
Configuration	<i>get bras cfg</i> <i>modify bras cfg</i>

2.6 DHCP Client Commands

Category	Commands
Information	<i>get dhcp client info</i>
Statistics	<i>get dhcp client stats</i>

2.7 DHCP Relay Commands

Category	Commands
Global Configuration	<i>get dhcp relay cfg</i> <i>modify dhcp relay cfg</i>
Interface Table	<i>create dhcp relay intf</i> <i>delete dhcp relay intf</i> <i>get dhcp relay intf</i>
Statistics	<i>get dhcp relay stats</i> <i>reset dhcp relay stats</i>

2.8 DHCP Server Commands

Category	Commands
Address Table	<i>get dhcp server address</i>
Global Configuration	<i>get dhcp server cfg</i> <i>modify dhcp server cfg</i>
Pool Exclusion Table	<i>create dhcp server exclude</i> <i>delete dhcp server exclude</i> <i>get dhcp server exclude</i>
Host Table	<i>create dhcp server host</i> <i>delete dhcp server host</i> <i>get dhcp server host</i> <i>modify dhcp server host</i>
Pool Table	<i>create dhcp server pool</i> <i>delete dhcp server pool</i> <i>get dhcp server pool</i> <i>modify dhcp server pool</i>
Statistics	<i>get dhcp server stats</i> <i>reset dhcp server stats</i>

2.9 DNS Commands

Category	Commands
Configuration	<i>modify DNS relay</i> <i>get DNS relay</i> <i>create dns servaddr</i> <i>delete dns servaddr</i> <i>get dns servaddr</i>
Statistics	<i>get dns relay stats</i> <i>reset dns relay stats</i>

2.10 DSL Commands

Category	Commands
Configuration	<i>modify dsl config</i> <i>get dsl config</i> <i>get dsl params</i>
Statistics	<i>get dsl stats cntrs</i>

	<pre>get dsl stats curr get dsl stats hist reset dsl stats cntrs get dsl stats flrs reset dsl stats flrs</pre>
--	--

2.11 EoA Commands

Category	Commands
Configuration	<pre>create eoa intf get eoa intf delete eoa intf modify eoa intf</pre>

2.12 Ethernet Commands

Category	Commands
Configuration	<pre>create ethernet intf delete ethernet intf get ethernet intf modify ethernet intf</pre>
Statistics	<pre>get ethernet stats reset ethernet stats</pre>

2.13 Firewall Commands

Category	Commands
Configuration	<pre>get fwl blacklist delete fwl blacklist modify fwl global get fwl global</pre>
Statistics	<pre>get fwl stats reset fwl stats</pre>

2.14 ICMP Commands

Category	Commands
Statistics	<pre>get icmp stats</pre>

2.15 IGMP Commands

Category	Commands
Configuration	<pre>create igmp intf delete igmp intf get igmp intf get igmp groups</pre>

2.16 ILMI Commands

Category	Commands
Configuration	<i>create ilmi intf</i> <i>get ilmi access protocol</i> <i>get ilmi intf</i> <i>modify ilmi intf</i> <i>trigger ilmi</i>

2.17 IP Commands

Category	Commands
Address Table	<i>get ip address</i>
ARP Table	<i>create arp</i> <i>delete arp</i> <i>get arp</i>
Global Configuration	<i>get ip cfg</i> <i>modify ip cfg</i>
Routing	<i>create ip route</i> <i>delete ip route</i> <i>get ip route</i>
Statistics	<i>get ip stats</i> <i>get host info</i>

2.18 IP Filtering Commands

Category	Commands
Filtering Rules	Configuration: <i>create ipf rule entry</i> <i>delete ipf rule entry</i> <i>get ipf rule entry</i> <i>modify ipf rule entry</i> Statistics: <i>get ipf rule stats</i> <i>reset ipf rule stats</i>
Statistics	<i>get ipf session</i> <i>reset ipf session</i> <i>delete ipf session</i>
Global IP Filtering Setup	<i>get ipf global</i> <i>modify ipf global</i> <i>get ipf stats</i> <i>reset ipf stats</i>

2.19 L2TP Commands

Category	Commands
Configuration/Statistics	<i>get l2tp tunnel config</i> <i>delete l2tp tunnel config</i> <i>get l2tp tunnel config</i>

	<pre> get l2tp global config modify l2tp global config modify l2tp tunnel config get l2tp udp stats reset l2tp tunnel stats get l2tp tunnel stats get l2tp global info get l2tp session stats reset l2tp session stats </pre>
--	---

2.20 L2Wall Commands

Category	Commands
Global Configuration	<pre> get l2wall cfg modify l2wall cfg </pre>

2.21 NAT Commands

Category	Commands
Global Configuration	<pre> get nat global modify nat global </pre>
Global Statistics	<pre> get nat stats reset nat stats </pre>
Rule	<pre> Rule Statistics: get nat rule stats reset nat rule stats Status: get nat rule status Table: create nat rule entry delete nat rule entry get nat rule entry </pre>
Translation Table	<pre> get nat translation </pre>
Status	<pre> get nat status </pre>

2.22 Pfraw Commands

Category	Commands
Rule and Subrule	<pre> create pfraw rule entry create pfraw subrule entry delete pfraw rule entry delete pfraw subrule entry get pfraw rule info modify pfraw rule entry modify pfraw subrule entry </pre>
Global Configuration	<pre> modify pfraw global get pfraw global </pre>
Statistics	<pre> get pfraw stats get pfraw rule stats reset pfraw rule stats </pre>

	<i>reset pfrac stats</i>
Protocol Blocking	<i>get pfrac block</i> <i>modify pfrac block</i>

2.23 PPP Commands

Category	Commands
IP Status	<i>get ppp ipinfo</i>
Link Configuration	<i>create ppp intf</i> <i>delete ppp intf</i> <i>get ppp intf</i> <i>modify ppp intf</i>
Link Status	<i>get ppp lstatus</i>
Global Configuration	<i>get ppp global</i> <i>modify ppp global</i>
Security Secrets	<i>create ppp security</i> <i>delete ppp security</i> <i>get ppp security</i> <i>modify ppp security</i>

2.24 PPPoE Commands

Category	Commands
AC Service Name Support	<i>get ppe acserv</i>
Global Configuration	<i>modify ppe cfg</i> <i>get ppe cfg</i>
Policy Configuration	<i>create ppe pconf</i> <i>delete ppe pconf</i> <i>get ppe pconf</i>
Statistics	Global: <i>get ppe stats global</i> Session: <i>get ppe stats session</i>

2.25 RIP Commands

Category	Commands
Global Configuration	<i>get rip global</i> <i>modify rip global</i>
Interface	<i>create rip intf</i> <i>delete rip intf</i> <i>get rip intf</i> <i>modify rip intf</i>
Statistics	<i>get rip stats</i> <i>reset rip stats</i>

2.26 RMON Commands

Category	Commands
----------	----------

Event Group	<i>get rmon eventgrp</i>
Memory Pool	<i>get rmon mpool</i>
Queue	<i>get rmon queue</i>
Semaphore	<i>get rmon semaphore</i>
Task	<i>get rmon task</i>

2.27 SNMP Commands

Category	Commands
Community	<i>create snmp comm</i> <i>delete snmp comm</i> <i>get snmp comm</i>
Host	<i>create snmp host</i> <i>delete snmp host</i> <i>get snmp host</i>
Statistics	<i>get snmp stats</i>
Traps	<i>get snmp trap</i> <i>modify snmp trap</i>

2.28 SMTP Commands

Category	Commands
Configuration	<i>modify smtp servaddr</i> <i>get smtp servaddr</i>

2.29 SNTP Commands

Category	Commands
Configuration	<i>create sntp servaddr</i> <i>delete sntp servaddr</i> <i>get sntp servaddr</i> <i>modify sntp cfg</i> <i>get sntp cfg</i>
Statistics	<i>get sntp stats</i> <i>reset sntp stats</i>

2.30 Surfing Profile

Category	Commands
Configuration	<i>reset surf profile reg</i>

2.31 TCP Commands

Category	Commands
Connection Table	<i>delete tcp conn</i> <i>get tcp conn</i>
Statistics	<i>get tcp stats</i>

2.32 UDP Commands

Category	Commands
Listener Table	<i>get udp listen</i>
Statistics	<i>get udp stats</i>

2.33 UNI Commands

Category	Commands
Configuration	<i>create atm uni</i> <i>delete atm uni</i> <i>get atm uni</i>

2.34 Usage Control Commdads

Category	Commands
Configuration	<i>get usagectl</i> <i>modify usagectl</i> <i>get datauserslist</i> <i>reset datauserslist</i>

2.35 USB Commands

Category	Commands
Configuration	<i>create usb intf</i> <i>delete usb intf</i> <i>get usb intf</i> <i>modify usb intf</i>
Statistics	<i>get usb stats</i>

2.36 ZIPB Commands

Category	Commands
Configuration	<i>modify zipb cfg enable</i>

2.37 Other Commands

<i>apply</i>	<i>logout</i>
<i>alias</i>	<i>memset</i>
<i>commit</i>	<i>modify autoupdate</i>
<i>create user</i>	<i>modify nbsize</i>
<i>delete user</i>	<i>modify system</i>
<i>do getserialize</i>	<i>modify trace cfg</i>
<i>do getver</i>	<i>modify trapprints</i>
<i>do serialize</i>	<i>passwd</i>
<i>download</i>	<i>ping</i>
<i>get autoupdate</i>	<i>prompt</i>
<i>get interface stats</i>	<i>rdm</i>
<i>get nbsize</i>	<i>rdf</i>
<i>get sizeinfo</i>	<i>reboot</i>
<i>get system</i>	<i>remove</i>
<i>get trace cfg</i>	<i>reset traps</i>
<i>get trace stats</i>	<i>size</i>
<i>get traps</i>	<i>traceRoute</i>
<i>get trapprints</i>	<i>unalias</i>
<i>get user</i>	<i>verbose</i>
<i>help</i>	<i>wrm</i>
<i>list</i>	

3 Command Listing

This chapter lists all commands in detail. All commands are arranged in an alphabetical order.

3.1 alias

Description

Use this command to create an alias for any CLI command. You can later call this command by using the alias-string along with any additional parameters, which you need to specify. It will display a list of all the aliases currently defined if no parameter is given.

Command Syntax

alias [alias-string = aliased-command]

Parameters

Name	Description
<i>alias-string</i>	The string which you will use to refer to the aliased command henceforth. Type: Optional Valid values: string of up to 14 characters ('A'-'Z', 'a'-'z', '0'-'9', '-', '_')
<i>aliased-command</i>	This is the total CLI command length (512 characters). Type: Mandatory Valid values: Any string (all printable characters except ';') as long as the total CLI Command length is not exceeded.

Mode

Super-User, User

Example

With parameters:

```
$alias abc = create dhcp server pool
Set Done
$abc start-ip 192.168.1.1 end-ip 192.168.1.5 mask 255.255.255.0
Entry Created
Pool Id:      0
```

Without parameters:

```
$alias
Alias          Command
-----
abc           create dhcp server pool
```

Output field description

Field	Description
-------	-------------

Alias	This is the new abbreviated command which you may use in place of the string specified in Command
Command	The command string which has been aliased

Caution

Alias Name should not match any CLI keyword. In this case the alias creation will be successful but the alias will not work. It will prompt an error.

References

- ❖ `unalias` command.

3.2 apply**Description**

Use this command to apply a configuration (.cfg) or shell script (.sh) file that is stored on the modem but has not yet been made active. (This command does not work with binary files, which are activated in RAM when they are uploaded.)

Command Syntax

```
apply fname file-name [besteffort true|false] [sparams
"<params>"]
```

Parameters

Name	Description
fname <i>file-name</i>	This specifies the file name which needs to be applied. Type: mandatory Valid values: string of up to 128 characters: ('A'-'Z', 'a'-'z', '0'-'9', '-', '_', ' ')
besteffort <i>true false</i>	If the besteffort flag is false, command execution (as specified in "file-name" file) stops immediately after a command returns an error. If the besteffort flag is true, command execution (as specified in "file-name" file) continues even if a command returns an error. Type: Optional Valid values: true or false Default value: false
sparams <i>"<params>"</i>	Params is space-separated list of parameters used as input in case of shell script files. Type: Optional Valid values: quoted string.

Mode

Super-User

Example

```
$ apply fname myconfig.cnf
```

Output

The output of the command is determined by the contents of myconfig.cnf.

Example 1:

The file myconfig.cnf has the following commands:

```
verbose on
create atm port ifname atm-0
```

The output would be:

```
Entry Created

If-Name           : atm-0           MaxVccs           : 2
CBRPriority        : 5             UBRPriority        : 1
RTVBRPriority      : 4             NRTVBRPriority    : 3
GFRPriority        : 2             Latency           : Interleaved
MaxConfVccs       : 0
OAMSrc            : 0xffffffffffffffffffffffffffffffff
Oper Status       : Up             Admin Status      : Up
```

Example 2:

The file myconfig.cnf has the following commands:

```
create atm port ifname atm-0
```

The output would be:

```
Entry Created
```

Output field description

None.

Caution

None.

References

- ❖ modify autoupdate command
- ❖ set autoupdate command
- ❖ remove command
- ❖ list command
- ❖ download command

3.3 commit

Description

Use this command to commit the active configuration to the flash.

Command Syntax

```
commit
```

Parameters

None.

Mode

Super-User, User

Example

\$ commit

Output

Set Done

Output field description

None.

Caution

None.

References

- ❖ reboot command
- ❖ download command

3.4 create alg port**Description**

Use this command to create an ALG port.

Command Syntax

```
create alg port portno port-no [prot {any|tcp|udp|icmp|esp|
num <prot-number>}] algtype
{ftp|snmp|cuseeme|l2tp|ra|rcmd|mircl
h323_q931|h323_ras|pptp|rtsp|timbuktu|ldap|sgicompcor
re|
msnmsgriike|esp}
```

Parameters

Name	Description
<i>portno port-no</i>	The Port number on which the ALG should run. The port here is the destination port of the untranslated packet Type: Mandatory Valid values: 0 – 65535
<i>prot any tcp udp icmp esp num< prot-number></i>	This specifies the protocol type for which the ALG should run. Type: Optional Valid values: any, tcp, udp, icmp, esp or 0-255 (

	valid IANA specified protocol) Default value: any
<code>algtype ftp snmp cuseeme l2tp ra rcmd mirc h323_q931 h323_ras pptp rtsp timbuktu ldap sgicompcore msnmsgr ike esp</code>	This specifies the ALG which has to be applied to this port Type: Mandatory

Mode

Super-User

Example

`$ create alg port portno 21 prot tcp algtype ftp`

Output

Verbose Mode On:

```
Entry Created
Port Num      Protocol      ALG Type
-----
21            Tcp          FTP
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Port Num</i>	The port number on which the ALG will operate. The port here is the destination port of the untranslated packet.
<i>Protocol</i>	The protocol for which this ALG will run.
<i>ALG type</i>	This specifies the ALG with has to be applied to this port. It may be: ftp, snmp, cuseeme, l2tp, ra, rcmd, mirc, h323_q931, h323_ras, pptp, rtsp, timbuktu, ldap, sgicompcore, msnmsgr, IKE,ESP

Caution

None.

References

- ❖ `delete alg port` command
- ❖ `get alg port` command
- ❖ `get alg type` command.

3.5 create arp

Description

This command is used for creating a static entry in ARP table.

Command Syntax

```
create arp ip ip-address macaddr mac-address
```

Parameters

Name	Description
<i>ip ip-address</i>	IP address corresponding to the media-dependent “physical” address Type: Mandatory Valid values: Any valid class A/B/C IP address
<i>macaddr mac-address</i>	The media-dependent “physical” address Type: Mandatory Valid values: 0:0:0:0:0:1 - ff:ff:ff:ff:fe

Mode

Super-User

Example

```
$ create arp ip 192.168.1.1 macaddr 11:11:11:11:11:11
```

Output

Verbose Mode On:

Entry Created

If Name	Type	Mac Address	Ip Address
veth-0	Static	11:11:11:11:11:11	192.168.1.1

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>If Name</i>	This specifies the physical interface for the media. It may be: <code>eth-0</code> or <code>veth-4</code> to <code>veth-1</code>
<i>Type</i>	This defines the type of mapping in use. The value <code>Invalid</code> has the effect that this entry is not used. It may be: <code>Static</code> , <code>Dynamic</code> , <code>Other</code>
<i>Mac Address</i>	The media-dependent “physical” address
<i>Ip Address</i>	IP address corresponding to the media-dependent “physical” address

Caution

The specified interface should exist. Please refer to the `create ethernet intf` command.

References

- ❖ `delete arp` command
- ❖ `get arp` command

- ❖ create ethernet intf command
- ❖ ip stats related commands
- ❖ ip route related commands
- ❖ ip address related commands
- ❖ ip cfg related commands

3.6 create atm port

Description

Use this command to create an ATM Port.

Command Syntax

```
create atm port ifname interface-name [maxvc max-
num-vccs] [fast|interleaved] [oamsrc oam-src-id]
[cbrpriority cbr- priority] [rtvbrpriority rtvbr-
priority] [nrtvbrpriority nrtvbr-priority]
[gfrpriority gfr-priority] [ubrpriority ubr-
priority] [enable|disable]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the name of the ATM port Type: Mandatory Valid values: atm-0
<i>maxvc max-num-vccs</i>	This specifies the maximum number of VCCs (PVCCs and SVCCs) supported at this ATM interface Type: Optional Valid values: 1 - up to maxvc given in size command Default value: 2
<i>fast interleaved</i>	Type of DSL channel in use on the underlying DSL port Type: Optional Default value: interleaved
<i>oamsrc oam-src-id</i>	Loop back source id assigned to the ATM port. The ATM port will respond to all loopback cells which carry this OAM id. Type: Optional Valid values: 0x followed by 32 hex digits Default value: 0xffff ffff ffff ffff ffff ffff ffff
<i>cbrpriority cbr-priority</i>	Priority of the CBR class. The higher the value, the higher the priority. The priority can be changed at run time. Type: Optional Valid values: 1-5 Default value: 5
<i>rtvbrpriority rtvbr-priority</i>	Priority of RT-VBR service category. The higher the value, the higher the priority. The priority can be changed at run time. Type: Optional

	Valid values: 1-5 Default value: 4
<i>nrtvbrpriority nrtvbr- priority</i>	Priority of NRT-VBR service category. The higher the value, the higher the priority. The priority can be changed at run time. Type: Optional Valid values: 1-5 Default value: 3
<i>gfrpriority gfr- priority</i>	This specifies the priority of GFR class. Value 1 means minimum priority is assigned to this traffic class. The higher the value, the higher the priority. It can be changed at run time. Type: Optional Valid values: 1-5 Default value: 2
<i>ubrpriority ubr- priority</i>	Priority of the best effort traffic. Value 1 means minimum priority is assigned to this traffic class. The higher the value, the higher the priority. It can be changed at run time. Type: Optional Valid values: 1-5 Default value: 1
<i>enable disable</i>	Admin status of the ATM port Type: Optional Default value: enable

Mode

Super-User

Example

\$ create atm port ifname atm-0 maxvc 4 fast

Output

Verbose Mode On:

Entry Created

```
If-Name           : atm-0           MaxVccs           : 4
CBRPriority        : 5             UBRPriority        : 1
RTVBRPriority      : 4             NRTVBRPriority    : 3
GFRPriority        : 2             Latency           : fast
MaxConfVccs       : 0
OAMSrc            : 0xffffffffffffffffffffffffffff
Oper Status        : Up             Admin Status      : Up
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>If-Name</i>	This specifies the name of the ATM port: It can be: atm-0.
<i>Max Vccs</i>	This specifies the maximum number of VCCs (PVCCs and SVCCs) supported at this ATM interface. It can be: 0-64.
<i>CBRPriority</i>	Priority of the CBR Class. Value 1 means lowest priority and higher the value higher the priority. It may

	be 1-5
<i>UBRPriority</i>	Priority of the best effort traffic. A value 0 means no traffic of this class is supported. The higher the value, the higher the priority. It may be: 1-5.
<i>RTVBRPriority</i>	Priority of the RT-VBR service category. The higher the value, the higher the priority. It may be: 1-5.
<i>NRTVBRPriority</i>	Priority of the NRT-VBR service category. The higher the value, the higher the priority. It may be: 1-5.
<i>GFRPriority</i>	This specifies the priority of GFR class. A value 0 means no traffic of this class is supported. Higher the value higher the priority. It may be: 1-5.
<i>Latency</i>	Type of DSL channel in use on the underlying DSL port. It may be: fast, interleaved
<i>MaxConfVccs</i>	This specifies the current number of VCCs configured on this port. It may be: 0 - Value defined in MaxVccs.
<i>OAMSrc</i>	Loop back source id assigned to the ATM port. The ATM port will respond to all loopback cells which carry this OAM ID.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down
<i>Admin Status</i>	The desired state of the interface. It may be either Up or Down

Caution

Execute the `size` command before creating an atm port.

References

- ❖ `atm trfdesc` related commands
- ❖ `atm vc` related commands
- ❖ `oam lpbk` command
- ❖ `atm port` related commands
- ❖ `atm statistics` related commands.

3.7 create atm svccfg

Description

Use this command to configure SVC (Switched Virtual Connection).

Command Syntax

```
create atm svccfg ifname interface-name daddr dest-
atm- address [pppoa|eoa|any] [nplan isdn|atmes] [trfindex
traffic- descriptor-index] [a5txsize aal5-
pcs-tx-sdu-size]
[a5rxsize aal5-pcs-rx-sdu-size] [vcmux|llcmux|none]
```

Parameters

Name	Description
------	-------------

Ifname <i>interface-name</i>	Interface name of the SVC to be configured. Type: Mandatory Valid values: aal5-0, aal5-1...
Nplan <i>isdn atmes</i>	The Address Plan to which the specified ATM Destination Address (for SVC to be opened) belongs Type: Optional Valid values: isdn atmes Default value: atmes
daddr <i>dest-atm-address</i>	The ATM address of the destination with which the connection has to be established. Type: Mandatory Valid values: Valid ATM Address
pppoa <i>eoalany</i>	This specifies the protocol that would run on the VC. pppoa – PPP over ATM eoa – Ethernet over ATM Any – Any Type: Optional Valid values: ppoa, eoa, any Default value: any
Trfindex <i>traffic-descriptor-index</i>	The index of the Traffic Descriptor Table entry whose traffic parameters are desired for the SVC to be opened. Type: Optional Valid values: 0 - 2 (max VC) Default value: 0
a5txsize <i>aal5-cpcs-tx-sdu-size</i>	This specifies the transmit CPCS SDU size to be used Type: Optional Valid values: 1-65535 Default value: 9188
a5rxsize <i>aal5-cpcs-rx-sdu-size</i>	This specifies the receive CPCS SDU size to be used Type: Optional Valid values: 1-65535 Default value: 9188
vcmux <i>llcmux none</i>	The type of Protocol Multiplexing used over 1483. The value none means no data multiplexing is to be done. Type: Optional Valid values: vcmux, llcmux, none Default value: llcmux

Mode

Super-User.

Example

```
$ create atm svccfg ifname aal5-0 nplan atmes daddr
0x47000580ffde00000000001050000000000000 trfindex 1
a5txsize 200 a5rxsize 200 vcmux pppoa
```

Output

Verbose Mode On

Entry Created

```
VC IfName      : aal5-0          AAL5 Encap    : VC Mux
VPI            : 0              VCI           : 0
Numbering Plan : atmes
Dest Atm Address : 0x47000580ffde00000000001050000000000000
Trf Descr Index : 1              Access Protocol : PPPoA
```

Aal5 Tx Size : 200 Aal5 Rx Size : 200

Verbose Mode Off

Entry Created

Output field description

Name	Description
<i>VC Ifname</i>	Interface name of the configured SVC.
<i>AAL5 Encap</i>	The type of Protocol Multiplexing used over 1483
<i>VPI</i>	The VPI of the ATM VC found towards the specified ATM Destination
<i>VCI</i>	The VCI of the ATM VC found towards the specified ATM Destination
<i>Numbering Plan</i>	The Address Plan to which the specified ATM Destination Address (for SVC to be opened) belongs.
<i>Dest Atm Address</i>	The ATM address of the destination with which the connection is established.
<i>Trf Descr Index</i>	The index of the Traffic Descriptor Table entry whose traffic parameters are for the SVC to be opened.
<i>Access Protocol</i>	This specifies the protocol that runs on the VC
<i>Aal5 Tx Size</i>	This specifies the transmit CPCS SDU size.
<i>Aal5 Rx Size</i>	This specifies the receive CPCS SDU size.

Caution

None.

References

- ❖ `get atm svccfg` command
- ❖ `delete atm svccfg` command

3.8 create atm trfdesc

Description

Use this command to create a traffic descriptor entry. Traffic descriptors are used to specify desired traffic characteristics during VC creation.

Command Syntax

```
create atm trfdesc trfindex traffic-descriptor-index  
[NOCLP_NOSCR|CLP_NOTAG_MCR|NOCLP_SCR]  
[UBR|GFR|CBR|RTVBR|NRTVBR] [pcr peak-cell-rate]  
[mcr minimum- cell-rate] [scr sustained-cell-  
rate] [mbs maximum-burst-size]
```

Parameters

Name	Description
<i>trfindex</i> <i>traffic-</i>	This identifies the traffic descriptor entry. The traffic

descriptor-index	descriptor 0 has a special meaning – it is always created by default and is used if the user does not specify a traffic descriptor in the create atm vc intf command. Type: Mandatory Valid values: 0 - *
NOCLP_NOSCR CLP_NOTAG_MCR NOCLP_SCR	Type of traffic to be used. Type: Optional Valid values: NOCLP_NOSCR, CLP_NOTAG_MCR, NOCLP_SCR Default value: NOCLP_NOSCR
UBR GFR CBR RTVBR NRTVBR	Service category to be used. UBR and CBR can be used only with NOCLP_NOSCR, RTVBR, and NRTVBR. GFR can be used with CLP_NOTAG_MCR. Type: Optional Valid values: UBR, GFR, CBR, RTVBR, NRTVBR Default value: UBR
pcr peak-cell-rate	Peak Cell Rate for ATM Traffic Type: Optional Valid values: 0 – 4294967295 Default value: 0
mcr minimum-cell-rate	Minimum Cell Rate for ATM Traffic Type: Optional Valid values: 0 – 4294967295 Default value: 0
scr sustained-cell-rate	Sustained Cell Rate for ATM Traffic Type: Optional Valid values: 0 – 4294967295 Default value: 0
mbs maximum burst size	Maximum Burst Size for ATM Traffic Type: Optional Valid values: 0 – 4294967295 Default value: 0

Mode

Super-User

Example

\$ create atm trfdesc trfindex 2 noclp_noscr ubr

Output

Verbose Mode On:

Entry Created

```
Traffic Descr Id      : 2                Type                : NOCLP_NOSCR
Service Category     : UBR                Frame Discard       : Enabled
PCR                  : 0                MCR                  : 0
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Traffic Descr Id</i>	This identifies the traffic descriptor entry which has been cre-

	ated.
<i>Type</i>	This defines the type of traffic used. It may be: NOCLP_NOSCR, CLP_NOTAG_MCR, or NOCLP_SCR
<i>Service Category</i>	This specifies the service category to be used. It may be: UBR, GFR, CBR, RTVBR, NRTVBR
<i>Frame Discard</i>	It is always Enabled. It indicates that the network is requested to treat data for this connection, in the given direction, as frames (e.g. AAL5 CPCS_PDU's) rather than as individual cells. This treatment may for example involve discarding entire frames during congestion, rather than a few cells from many frames.
<i>PCR</i>	Peak Cell Rate for ATM Traffic
<i>MCR</i>	Minimum Cell Rate for ATM Traffic

Caution

None.

References

- ❖ atm trfdesc commands
- ❖ atm vc related commands
- ❖ atm statistics command
- ❖ atm port related commands

3.9 create atm uni

Description

Use this command to create UNI (User Network Interface).

Command Syntax

```
create atm uni ifname interface-name saddr source-atm-addr [nplan isdn|atmes] [version uni31|uni40]
```

Parameters

Name	Description
<i>Ifname</i> interface-name	Interface name of the ATM VC over which UNI signaling is to be run. Type: Mandatory Valid values: aal5-0, aal5-1...
<i>Nplan</i> isdn atmes	The Address Plan to which the specified ATM Source Address belongs Type: Optional Valid values: isdn atmes Default value: atmes
<i>Saddr</i> source-atm-address	The self ATM address. It could be a valid hexvalue or decvalue. Type : Mandatory Valid values: Valid ATM Address
<i>version</i> uni31 uni40	This specifies the version of UNI. Type: Optional

	Valid Values: uni31 or uni40 Default Value: uni31
--	--

Mode

Super-User.

Example

```
$ create atm uni ifname aal5-0 nplan atmes saddr
0x39000760ff8900000000000119000000000000 version uni40
```

Output

Verbose Mode On

Entry Created

```
IfName          : aal5-0          ATM Numb Plan : atmes
Status          : Up              Version        : UNI40
Self ATM Address : 0x39000760ff8900000000000119000000000000
```

Verbose Mode Off

Entry Created

Output field description

Name	Description
<i>Ifname</i>	Interface name of VC over which UNI signaling is running. It can be: aal5-0, aal5-1...
<i>ATM NumbPlan</i>	The Address Plan to which the specified ATM Source Address belongs.
<i>Status</i>	This specifies the status of the Signaling ATM Adaptation Layer (SAAL) layer. The purpose of SAAL is to provide reliable transfer of signaling message between peer UNI entities.
<i>Version</i>	This specifies the version of the UNI used. UNI31 and UNI40 mean UNI3.1 and UNI4.1 respectively.
<i>SelfAtmAddress</i>	The source ATM address.

Caution

Create aal5 VC with none encapsulation, before creating atm uni.

References

- ❖ get atm uni command
- ❖ delete atm uni command

3.10 create atm vc intf

Description

Use this command to create a new ATM Virtual Circuit.

Command Syntax

```
create atm vc intf ifname interface-name vpi vpi vci vci
[lowif virtual-atm-port-interface-name]
[enable|disable|lpbk] [trfindex traffic-descriptor-
index] [aal5] [a5txsize aal5-cpcs-tx-sdu-size]
[a5rxsize aal5-cpcs-rx-sdu-size]
[vcmux|llcmux|none] [a5maxproto max-protocol-
per-aal5] [vcweight vc-weight]
```

Parameters

Name	Description
<i>ifname</i> interface-name	VC Interface Name Type: Mandatory Valid values: <i>aal5-0 - * to aal5-7</i>
<i>lowif virtual-atm-port-interface-name</i>	Lower interface index. It should correspond to a valid atm port. Type: Optional Valid values: atm-0 Default value: atm-0
<i>vpi</i>	Virtual Path Identifier Type: Mandatory Valid values: 0-255
<i>vci</i>	Virtual Circuit Identifier Type: Mandatory Valid values: 0-65535
<i>enable disable lpbk</i>	This specifies the Admin Status of the VC. lpbk has a special significance. If set to lpbk, the VC will loop back whatever cells it receives. Type: Optional Default value: enable
<i>trfindex</i>	This index references an existing traffic descriptor, whose ATM traffic parameters will be used to create the VC. Type: Optional Default value: 0
<i>aal5</i>	AAL type to be used for the VC. Type: Optional Default value: aal5
<i>a5txsize</i>	This specifies the transmit CPCS SDU size to be used Type: Optional Valid values: 1-65535 Default value: 9188
<i>a5Rxsiz</i>	This specifies the receive CPCS SDU size to be used Type: Optional Valid values: 1-65535 Default value: 9188
<i>vcmux llcmux none</i>	This specifies the data multiplexing method to be used over the AAL5 SSCS layer. RFC 1483 defines two methods – VC muxing

	and LLC muxing. None means no data multiplexing is to be done. Type: Optional Default value: llcmux
<i>A5maxproto</i>	This specifies the maximum number of protocols that are supported over the VC. It is relevant and configurable only for an LLC muxed VC. For a VC muxed VC it is always 1. Type: Optional Valid values: 1-255 Default value: 2
<i>vcweight</i>	This specifies the priority of the VC. Higher value means higher priority. Type: Optional Valid values: 0-255 Default value: 10

Mode

Super-User

Example

```
$ create atm vc intf ifname aal5-0 vpi 10 vci 10 lowif atm-0 enable
trfindex 2 aal5 a5txsize 9200 a5rxsize 9200 llcmux a5maxproto 3
vcweight 40
```

Output

Verbose Mode On:

Entry Created

```
LowIf           : atm-0      VPI             : 10           VCI           : 10
VC IfName       : aal5-0      VC Type         : PVC
Admin Status    : Up         Oper Status     : Up
Aal5 Tx Size    : 9200      Aal5 Rx Size   : 9200
AAL Type        : AAL5      AAL5 Encap     : LLC Mux
Max Aal5 Proto  : 3         Trf Descr Index : 2
VC Weight       : 40
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>LowIf</i>	Lower interface index. It is always: atm-0
<i>VPI</i>	It is the Virtual Path Identifier.
<i>VCI</i>	It is the Virtual Circuit Identifier.
<i>VC IfName</i>	VC Interface Name. It can be: aal5-0 - aal5-63
<i>VC Type</i>	This field specifies whether VC type is PVC or SVC.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down
<i>Admin Status</i>	The desired state of the interface. It may be either Up, Down or Loopback. Loopback has a special significance. A Loopback VC will loop back whatever cells it receives.
<i>Aal5 Tx Size</i>	This specifies the transmit CPCS SDU size to be used
<i>Aal5 Rx Size</i>	This specifies the receive CPCS SDU size to be used
<i>Aal Type</i>	AAL type in use for the VC
<i>Aal5 Encap</i>	This specifies the data multiplexing method to be used over the

	AAL5 SSCS layer.
<i>Max Aal5 Proto</i>	This specifies the maximum number of protocols that are supported over the VC
<i>Trf Descr Index</i>	This identifies the transmit traffic parameters in use. It corresponds to a valid traffic descriptor entry
<i>VC Weight</i>	This specifies the priority of the VC. Higher value means higher priority

Caution

Entry corresponding to the specified trfindex should exist. Please refer to `atm trfdesc` commands.

The specified lower interface should exist. Please refer to the `create atm port` command.

References

- ❖ `atm vc intf` commands
- ❖ `atm trfdesc` related commands
- ❖ `oam lpbk` command
- ❖ `atm port` related commands
- ❖ `atm statistics` command

3.11 create bridge port intf

Description

Use this command to create a new bridge port.

Command Syntax

`create bridge port intf ifname interface-name`

Parameters

Name	Description
<i>ifname interface-name</i>	Specifies the interface name for which the bridge port is to be created. Any valid EoA or ethernet interface may be specified. Type: Mandatory Valid values: eoa-0 - *, eth-0

Mode

Super-User

Example

`$ create bridge port intf ifname eth-0`

Output

Verbose Mode On:

Entry Created

```

Port      If-Name      Delay-Exceed-Discards      MTU-Exceed-Discards
-----
1         eth-0        0                          0

```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Port</i>	The port number of the interface for which the bridge port has been created.
<i>If-Name</i>	This specifies the Interface name corresponding to the above port. It can be: eoa-0 - *, eth-0
<i>Delay-Exceed-Discards</i>	The number of frames discarded by this port due to excessive transit delay through the bridge
<i>MTU-Exceed-Discards</i>	The number of frames discarded by this port due to the frame size being greater than the MTU of the interface

Caution

The specified interface should exist.

References

- ❖ `delete bridge port intf` command
- ❖ `create usb intf` command
- ❖ `get bridge port intf` related commands
- ❖ `bridge mode` related commands
- ❖ `bridge port stats` related commands
- ❖ `bridge static` related commands
- ❖ `bridge forwarding` related commands
- ❖ `create ethernet intf` related commands
- ❖ `create eoa intf` related commands.

3.12 create bridge static**Description**

Use this command to specify the list of interfaces over which frames destined for the given MAC address shall be forwarded.

Command Syntax

```
create bridge static macaddr mac-address inifname
interface- name|all [ifname interface-
name|all]+
```

Parameters

Name	Description
<i>macaddr mac-address</i>	The destination MAC address in a frame to which this entry's filtering information applies. Type: Mandatory Valid values: 0:0:0:0:0:1 to FF:FF:FF:FF:FF:FE
<i>Inifname interface-name all</i>	Interface from which a frame must be received in order for this entry's filtering information to apply. A value of all indicates that this entry applies on all interfaces of the bridge for which there is no other applicable entry. Type: Mandatory Valid values: eth-0, eoa-0 - *, usb-0
<i>ifname interface-name all</i>	The interface to which frames destined for the given MAC address are allowed to be forwarded. Any number of such interfaces may be specified together. Type: Optional Valid values: eth-0, eoa-0 - * Default value: all

Mode

Super-User

Example

```
$ create bridge static macaddr 1:1:1:1:1:1 inifname veth-0 ifname
eth-0 ifname eoa-1
```

Output

Verbose Mode On:

Entry Created

```
MAC Address      : 01:01:01:01:01:01      Incoming Interface : veth-0
Interfaces       : eoa-0 eoa-1
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>MAC Address</i>	The destination MAC address in a frame to which this entry's filtering information applies
<i>Incoming Interface</i>	Interface from which a frame must be received in order for this entry's filtering information to apply. A value of all indicates that this entry applies on all interfaces of the bridge for which there is no other applicable entry.
<i>Interfaces</i>	The interfaces to which frames destined for a specific MAC address

are allowed to be forwarded. They may be: eth-0, eoa-0 - *

Caution

Bridge ports must have been created for the interfaces specified in this command.

References

- ❖ delete bridge static command
- ❖ get bridge static related commands
- ❖ modify bridge static related commands
- ❖ bridge port stats related commands
- ❖ bridge static related commands
- ❖ bridge forwarding related commands
- ❖ bridge mode related commands.

3.13 create dhcp relay intf

Description

Use this command to enable the specified interface for DHCP relay.

Command Syntax

create dhcp relay intf ifname interface-name

Parameters

Name	Description
<i>ifname</i> interface-name	This specifies the Interface which is to be enabled for DHCP Relay Type: Mandatory Valid values: eth-0, eoa-0 - *, ppp-0 - *, ipoa-0-* and usb-0

Mode

Super-User

Example

\$ create dhcp relay intf ifname eth-0

Output

Verbose Mode On:

Entry Created

If-name

eth-0

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>If-Name</i>	This specifies an interface which is enabled for DHCP Relay. It can be: eth-0, ppp-0, ppp-1,...

Caution

None.

References

- ❖ delete dhcp relay intf command
- ❖ get dhcp relay intf related commands
- ❖ dhcp relay cfg related commands
- ❖ dhcp relay stats related commands
- ❖ create ethernet intf related commands
- ❖ create ppp intf related commands.

3.14 create dhcp server exclude

Description

Use this command to create an entry in the address exclusion table. While assigning addresses to DHCP clients, the DHCP server does not use the IP addresses that are added in the address exclusion table.

Command Syntax

create dhcp server exclude ip ip-address

Parameters

Name	Description
<i>ip ip-address</i>	The IP address that has to be excluded. The IP Address must belong to a pool Type: Mandatory Valid values: Any valid class A/B/C IP address

Mode

Super-User

Example

```
$ create dhcp server exclude ip 192.168.1.5
```

Output

Verbose Mode On:

```
Entry Created
```

```
Ip Address
```

```
-----
```

```
192.168.1.5
```

Verbose Mode Off:

```
Entry Created
```

Output field description

Field	Description
<i>ip Address</i>	This is the IP Address that has been excluded.

Caution

The IP Address specified must belong to a pool.

References

- ❖ `get dhcp server exclude` command
- ❖ `delete dhcp server exclude` related commands
- ❖ `dhcp server pool` related commands.

3.15 create dhcp server host**Description**

This command is used to create a DHCP static host entry. Whenever a client with the same MAC address as specified in the entry requests an IP address, the server assigns it the address as given in the entry. The client with the given MAC address always gets this same IP address whenever it boots.

Command Syntax

```
create dhcp server host ip ip-address mask ip-address
hwaddr hw-address [dname domain-name]
[pop3|nntp|web|irc|wins|swins|dns|sdns|gwy|smtp] ip-
address]* [dlease default-lease-time] [mlease
max-lease-time]
```

Parameters

Name	Description
<i>ip ip-address</i>	This specifies the IP address to be provided to this host

	Type: Mandatory Valid values: Any valid class A/B/C IP address
mask ip-address	This specifies the subnet mask to be provided to the host Type: Mandatory Valid values: 128.0.0.0 – 255.255.255.254
hwaddr hw-address	This specifies the hardware address of the client. Type: Mandatory Valid values: 0:0:0:0:0:0 – ff:ff:ff:ff:ff:ff
dname domain-name	Specifies the domain name configured for this host Type: Optional Valid values: String of length 64 with valid characters 'a'- 'z', 'A'-'Z', '0'-'9', '-', '_', and '.' Default value: null
gw ip-address	This specifies the default gateway IP address Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
pop3 ip-address	This specifies the IP address of the POP3 Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
nntp ip-address	This specifies the IP address of the NNTP Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
web ip-address	This specifies the IP address of the WWW Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
irc ip-address	This specifies the IP address of the IRC Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
wins ip-address	This specifies the IP address of the primary WIN Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
swins ip-address	This specifies the IP address of the secondary WIN Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
dns ip-address	This specifies the IP address of the primary Domain Name Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
sdns ip-address	This specifies the IP address of the secondary Domain Name Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
smtp ip-address	This specifies the IP address of the SMTP Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
dlease default-lease-time	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself. Type: Optional Valid values: 0 -mlease Default value: 2592000 seconds (this equals 30 days)

<i>max-lease-time</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client. Type: Optional Valid values: 0 – 4294967295 Default value: 31536000 seconds (this equals 1 year)
------------------------------	---

Mode

Super-User

Example

```
$ create dhcp server host ip 192.168.1.7 mask 255.255.255.0
hwaddr 12:34:45:56:3:2
```

Output

Verbose Mode On:

Entry Created

```
Host Ip           : 192.168.1.7           Hardware Addr      : 12:34:45:56:03:02
Def Lease(sec)    : 2592000                Max Lease(sec)    : 31536000
Domain Name       :
Subnet Mask       : 255.255.255.0
Gateway Ip        : 0.0.0.0              Sntp Ip           : 0.0.0.0
Dns Ip            : 0.0.0.0              Sec. Dns Ip       : 0.0.0.0
Pop3 Ip           : 0.0.0.0              Nntp Ip           : 0.0.0.0
Www Ip            : 0.0.0.0              Irc Ip            : 0.0.0.0
Wins Ip           : 0.0.0.0              Sec. Wins Ip      : 0.0.0.0
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Host Ip</i>	This specifies the IP address to be provided to this host.
<i>Hardware Addr</i>	This specifies the hardware address of the client
<i>Def Lease</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
<i>Max Lease</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.
<i>Domain Name</i>	Specifies the domain name configured for this host
<i>Subnet Mask</i>	This specifies the subnet mask to be provided to the host
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>Sntp Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec. Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server
<i>Www Ip</i>	This specifies the IP address of the WWW Serve
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec. Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

None.

References

- ❖ `get dhcp server host` command
- ❖ `delete dhcp server host` related commands
- ❖ `modify dhcp server host` related commands
- ❖ `dhcp server` related commands.

3.16 create dhcp server pool

Description

Use this command to create a DHCP server pool.

Command Syntax

```
create dhcp server pool [pool-id pool-id] start-ip ip-  
address end-ip ip-address mask ip-address  
[dname domain-name]  
{pop3|nntp|web|irc|wins|swins|dns|sdns|gwy|smtp} ip-  
address}* [enable|disable] [lthres low-threshold]  
[dlease default-lease-time] [mlease max-lease-  
time]
```

Parameters

Name	Description
<i>pool-id pool-id</i>	This specifies the Pool Id to be assigned to the newly created pool. If no id is specified then the pool is automatically assigned a pool id which is free. Type: Optional Valid values: 0-* , where * depends upon the iad.conf value
<i>start-ip ip-address</i>	The IP address of the first address in the range. The value of range start must be less than or equal to the value of range end Type: Mandatory Valid values: Any valid class A/B/C IP address
<i>end-ip ip-address</i>	The IP address of the last address in the range. The value of range end must be greater than or equal to the value of range start. Type: Mandatory Valid values: Any valid class A/B/C IP address
<i>mask ip-address</i>	This specifies the subnet mask provided to any client offered an address from this range Type: Mandatory Valid values: 128.0.0.0 – 255.255.255.254
<i>dname domain-name</i>	Domain name used per subnet. Type: Optional

	Valid values: String of length 64 with valid characters 'a'-'z', 'A'-'Z', '0'-'9', '-', '_' and '.' Default value: null
<i>gwy ip-address</i>	This specifies the default gateway IP address Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>pop3 ip-address</i>	This specifies the IP address of the POP3 Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>nntp ip-address</i>	This specifies the IP address of the NNTP Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>web ip-address</i>	This specifies the IP address of the WWW Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>irc ip-address</i>	This specifies the IP address of the IRC Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>wins ip-address</i>	This specifies the IP address of the primary WIN Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>swins ip-address</i>	This specifies the IP address of the secondary WIN Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>dns ip-address</i>	This specifies the IP address of the primary Domain Name Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>sdns ip-address</i>	This specifies the IP address of the secondary Domain Name Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>smtip ip-address</i>	This specifies the IP address of the SMTP Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>dlease default-lease-time</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself. Type: Optional Valid values: 0 -mlease Default value: 2592000 seconds (this equals 30 days)
<i>mlease max-lease-time</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client. Type: Optional Valid values: 0 – 4294967295 Default value: 31536000 seconds (this equals 1 year)
<i>enable disable</i>	The state the pool is to be set in. Type: Optional Valid values: enable, disable Default value: enable
<i>lthres low-</i>	Specifies the lowest threshold value on the number of

threshold	available IP addresses for a particular shared network. If the number of free IP addresses fall below this value, then a trap is raised. This value has to be less than the pool size specified using the start and end ip addresses. Type: Optional Valid values: 0 – 255 Default value: 0
------------------	--

Mode

Super-User

Example

```
$ create dhcp server pool start-ip 192.168.1.1 end-ip 192.168.1.200
mask 255.255.255.0
```

Output

Verbose Mode On:

Entry Created

```
Pool Id           : 0                Status           : Disable
Start Ip          : 192.168.1.1      End Ip           : 192.168.1.200
Def Lease(sec)   : 2592000          Max Lease(sec)   : 31536000
Range Inuse      : 0                Outstd Offers    : 0
Low Thres        : 0                Subnet Mask      : 255.255.255.0
Domain Name      :
Gateway Ip       : 0.0.0.0          Sntp Ip          : 0.0.0.0
Dns Ip           : 0.0.0.0          Sec. Dns Ip      : 0.0.0.0
Pop3 Ip          : 0.0.0.0          Nntp Ip          : 0.0.0.0
Www Ip           : 0.0.0.0          Irc Ip           : 0.0.0.0
Wins Ip          : 0.0.0.0          Sec. Wins Ip     : 0.0.0.0
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
Pool Id	This is the pool identifier.
Status	This defines the Admin status of the entry. It may be: Enable, Disable
Start Ip	The IP address of the first address in the range.
End Ip	The IP address of the last address in the range
Def Lease	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
Max Lease	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.
Range Inuse	The number of addresses in this range that are currently in use. This number includes those addresses whose lease has not expired and addresses which have been reserved
Outstd Offers	The number of outstanding DHCP OFFER messages for this range is reported with this value. An offer is outstanding if the server has sent a DHCP OFFER message to a client, but has not yet received a DHCP REQUEST message from the client nor has the server-specific timeout, within which a client can respond to the

	offer message, for the offer message expired
<i>Low Thres</i>	This specifies the lowest threshold value on the number of available/ free IP addresses for a particular shared network
<i>Subnet Mask</i>	The subnet mask provided to any client offered an address from this range
<i>Domain Name</i>	Domain name used per subnet.
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>Smtip Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec.Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server
<i>Www Ip</i>	This specifies the IP address of the WWW Serve
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec.Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

No two pools can overlap i.e. an IP Address cannot belong to more than 1 pool.

References

- ❖ `get dhcp server pool` command
- ❖ `delete dhcp server pool` related commands
- ❖ `modify dhcp server pool` related commands
- ❖ `dhcp server cfg` related commands
- ❖ `dhcp server exclude` related commands
- ❖ `dhcp server address` related commands.

3.17 create dns servaddr**Description**

Use this command to create DNS server addresses.

Command Syntax

```
create dns servaddr <ip-address>
```

Parameters :

Name	Description
<code>ip-address</code>	This parameter specifies the IP address for configuring the DNS server address. Type: Mandatory Valid values: Valid IP address.

Mode

Super-User.

Example :

\$ create dns servaddr *182.25.2.1*

Output

Verbose mode on:

```
Entry Created
DNS Server IP Address
-----
182.25.2.1
```

Verbose mode off:

```
Entry Created
```

Output Field description:

Field	Description
<i>DNS Server IP Address</i>	This specifies the IP address of the DNS server.

Caution

None

References:

- ❖
- ❖
- ❖
- ❖
- ❖
- ❖

3.18 create eoa intf

Description

Use this command to create an eoa interface.

Command Syntax

```
create eoa intf ifname interface-name [ip ip-address]
[mask net-mask] lowif low-interface-name
```

[inside|outside|none] [usedhcp true|false] [droute true|false] [ifsectype public|private|dmz] [gwy <ddd.ddd.ddd.ddd>]

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the name assigned to this interface. Type: Mandatory Valid values: eoa-0 - *
<i>ip ip-address</i>	The IP address to be assigned to the eoa interface. Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>mask net-mask</i>	This parameter specifies the subnet mask to be applied to the IP address. Type: Optional Valid values: 128.0.0.0 – 255.255.255.254 Default value: 0.0.0.0
<i>lowif low-interface-name</i>	This parameter specifies the lower interface of an eoa interface. Type: Mandatory Valid values: aal5-0 - *
<i>inside outside none</i>	This specifies the NAT direction for the interface. Type: Optional Valid values: inside, outside, none Default value: none
<i>usedhcp true false</i>	This specifies whether a DHCP client is to be triggered to obtain an IP address for this interface from a DHCP server. Type: Optional Valid values: true or false Default value: false
<i>droute true false</i>	This specifies the default route Type: Optional Valid values: true or false Default value: false
<i>ifsectype public private dmz</i>	Type of interface security. Type: Optional Valid values : public, private or dmz Default Value : public
<i>gwy <ddd.ddd.ddd.ddd></i>	This specifies the gateway IP address Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0

Mode

Super-User

Example

```
$ create eoa intf ifname eoa-0 ip 192.168.1.1 mask 255.255.255.0 lowif aal5-0 none ifsectype public
```

Output

Verbose Mode On:

```
IfName           : eoa-0           Interface Sec Type : Public
Configured IP Address: 0.0.0.0       Mask                : 0.0.0.0
Low IfName       : aal5-0          NAT Direction      : OUT
Gateway          : 0.0.0.0         DRoute             : False
Oper Status      : Down            Admin Status        : Up
UseDHCP          : False
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>IfName</i>	The name of the interface which has been created.
<i>Configured IPAddress</i>	IP address assigned to the eoa interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>LowIfName</i>	Specifies the lower interface.
<i>Nat Direction</i>	This specifies the NAT direction which may be: inside, outside or none.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down
<i>Admin Status</i>	The desired state of the interface. It may be either Up or Down
<i>UseDhcp</i>	Whether or not a DHCP client is used to obtain the IP address for this interface from a DHCP server
<i>Interface Sec Type</i>	Interface Security Type.
<i>Droute</i>	Default route
<i>Gateway address</i>	Gateway IP address

Caution

None.

References

- ❖ `get eoa intf` command
- ❖ `delete eoa intf` command
- ❖ `modify eoa intf` command
- ❖ `eoas stats` related commands
- ❖ `interface stats` related commands
- ❖ `atm vc intf` related commands

3.19 create ethernet intf

Description

Use this command to create a physical or a virtual Ethernet interface. The type of interface to be created is identified by the name of the interface.

Command Syntax

```
create ethernet intf ifname interface-name [ip ip-
address] [mask net-mask] [phyif low-interface-
name] [inside|outside|none] [usedhcp local|remote|false]
[ifsectype public|private|dmz]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the name which will be used to refer to the interface in future. The interface type, i.e., whether it is physical or virtual is implicit in the name. eth (e.g., eth-0) specifies a physical interface and veth (eg veth-0, veth-1 etc.) specifies a virtual interface. Type: Mandatory Valid values: eth-0, veth-0 - *
<i>ip ip-address</i>	The IP address to be assigned to the Ethernet interface. Type: Mandatory only when virtual interface is specified, i.e., it is not eth-0 Valid values: Any valid class A/B/C IP address. 0.0.0.0 is invalid for a virtual ethernet interface. Default value: 0.0.0.0
<i>Mask net-mask</i>	This parameter specifies the subnet mask to be applied to the IP address. Mask not allowed when usedhcp true, along with ip 0.0.0.0 Type: This field is not allowed when a physical interface is specified and ip is 0.0.0.0. In all other cases the field is mandatory. Valid values: 255.0.0.0 – 255.255.255.255 Default value: 255.0.0.0
<i>phyif low-interface-name</i>	When a virtual interface is being created, this specifies the lower interface name to be specified. This can be the interface name of a physical ethernet interface only. Type: Optional for virtual (veth) interfaces. Not allowed for physical (eth) interfaces. Valid values: eth-0 Default value: eth-0
<i>inside outside none</i>	This specifies the NAT direction for the interface. Type: Optional Valid values: inside, outside, none Default value: none
<i>usedhcp local remote false</i>	Local: IP address for this interface is obtained from a local DHCP server Remote: DHCP client is used to obtain the IP address for this interface from a remote DHCP server False: DHCP client is not used. Type: Optional Valid values: local, remote, false Default value: false
<i>ifsectype public private dmz</i>	Interface security type Type: Optional Valid values : public, private or dmz Default Value : private

Mode

Super-User

Example

```
$ create ethernet intf ifname eth-0 ip 192.168.1.1 mask  
255.255.0.0 ifsectype private inside
```

Output

Verbose Mode On:

Entry Created

```
Interface           : eth-0  
Interface Sec Type  : Private           Configured IP Address  :  
192.168.1.1  
Mask                : 255.255.255.0     UseDhcp                : False  
Physical Interface  : eth-0           Nat Direction          : None  
Configured Duplex   : auto             Configured Speed       : auto  
Duplex              : half             Speed                  : 10BT  
Operational Status  : Up                Admin Status           : Up
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Interface</i>	The name of the interface which has been created.
<i>Interface Security Type</i>	Type of interface security - private, public or demilitarized.
<i>Configured Ip Address</i>	IP address assigned to the Ethernet port.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>UseDhcp</i>	Local: IP address for this interface is obtained from a local DHCP server Remote: DHCP client is used to obtain the IP address for this interface from a remote DHCP server False: DHCP client is not used.
<i>Physical Interface</i>	Valid only in case of virtual interfaces i.e. the Type is not eth. It can only be eth-0
<i>Nat Direction</i>	This specifies the NAT direction which may be: inside, outside or none.
<i>Configured Duplex</i>	The duplex mode to be used by the interface, as configured by the user.
<i>Configured Speed</i>	Line speed to be used by Ethernet interface as configured by the user
<i>Duplex</i>	The duplex mode used by the interface.
<i>Speed</i>	Line speed used by Ethernet interface
<i>Operational Status</i>	The actual/current state of the interface. It can be either up or down
<i>Admin Status</i>	The desired state of the interface. It may be either up or down

Caution

A virtual interface (veth-0, veth-1 etc.) cannot be created unless a physical interface (i.e. eth-0) exists.

References

- ❖ get ethernet intf command
- ❖ delete ethernet intf command
- ❖ modify ethernet intf related commands
- ❖ ethernet stats related commands
- ❖ interface stats related commands.

3.20 create igmp intf

Description

Use this command to start IGMP over a given IP interface.

Command Syntax

```
create igmp intf ifname <interface-name> [qinterval
<query- interval>] [robust <robustness-
variable>] [host|router] [version igmpv1|igmpv2]
[qmaxresponsetime < qmaxresponsetime >] [lmqinterval
< lmqinterval >]
```

Parameters

Name	Description
<i>ifname</i> < <i>interface-name</i> >	This identifies the interface on which IGMP is enabled. Type: Mandatory Valid values: eth-0, veth-0 - *, ppp-0 - *, eoa-0 - *, usb-0, ipoa-0-*
<i>qinterval</i> < <i>query-interval</i> >	This specifies the periodic interval in seconds at which host-query messages (queries) are transmitted on this interface. Type: Optional Valid values: 1-4294967295 Default value: 125 seconds
<i>robust</i> < <i>robustness-variable</i> >	The Robustness Variable allows tuning for the expected packet loss on a subnet. If a subnet is expected to be lossy, the Robustness Variable may be increased. IGMP is robust to (Robustness Variable- 1) packet losses. Type: Optional. Valid values: 1-255 Default value: 2
<i>host router</i>	This tells whether the interface is configured as IGMP Host Interface or IGMP Router Interface Type: Optional. Valid values: host or router Default value: router
<i>Version igmpv1 igmpv2</i>	This identifies the version of IGMP. Type: Optional Valid values: igmpv1 and igmpv2 Default value: igmpv2
<i>qmaxresponsetime</i> < <i>qmaxresponsetime</i> >	This identifies the query max response time (in secs) Type: Optional Valid Values: Any decimal value.

	Default value: 10
<i>lmqinterval</i> < <i>lmqinterval</i> >	This identifies the Last Member Query Interval (in secs) Type : Optional Valid Values: Any decimal value. Default value: 1

Mode

Super-User.

Example

```
$ create igmp intf ifname eth-0 qinterval 150 robust 10 version
igmpv1 lmqinterval 2 qmaxresponsetime 10
```

Output

Verbose Mode On

Entry Created

```
IfName           : eth-0                               Type
: Host
Version          : igmpv1                               Query Interval(sec)
: 150
Query Max Resp Time(sec) : 10                           Last Memb
QueryIntvl(sec)  : 2
Robustness       : 10                                   Join Requests
: 10
Current Groups   : 8
```

Verbose Mode Off

Entry Created

Output field description

Field	Description
<i>Query Interval(sec)</i>	This is the periodic interval at which host-query messages (queries) are transmitted on this interface
<i>Version</i>	This field specifies the version of IGMP.
<i>Query Max ResponseTime(sec)</i>	This field specifies the query max response time (in secs)
<i>Last Memb QueryIntvl(sec)</i>	This is the periodic interval at which host-query messages (queries) are transmitted on this interface.
<i>Join Requests</i>	This is the number of times a group membership has been added to this interface
<i>Current Groups</i>	This is the current number of entries for this interface in the IGMP Group Table.

Caution

None.

References

- ❖ create igmp intf command
- ❖ get igmp intf command

❖ get igmp groups command

3.21 create ilmi intf

Description

This command is used for configuring ILMI based auto configuration parameters on an ATM interface.

Command Syntax

```
create ilmi intf ifname interface-name [enable|disable]
[vpi vpi-number] [vci vci-number] [timeout time-
out] [keepalive keep-alive] [maxretry max-retry]
```

Parameters

Name	Description
<i>ifname interface-name</i>	It specifies the ATM port on which ILMI based auto configuration is to be configured. Type: Mandatory Valid values: atm-0.
<i>enable disable</i>	Whether ILMI based auto configuration is enabled or not on this interface Type: Optional Valid values: enable, disable Default value: disable
<i>vpi vpi-number</i>	VPI to be used for ILMI SNMP message exchanges Type: Optional Valid values: 0 - 255 Default value: 0
<i>vci vci-number</i>	VCI to be used for ILMI SNMP message exchanges Type: Optional Valid values: 0-65535 Default value: 16
<i>timeout time-out</i>	Timeout value in seconds, for SNMP Get/Set messages exchanged between peer Interface Management Entities (IMEs). Type: Optional Valid values: 1-65535 Default value: 1
<i>keepalive keep-alive</i>	The time-interval in seconds, ILMI should use to poll for peer ILMI's availability. Type: Optional Valid values: 1-65535 Default value: 5
<i>maxretry max-retry</i>	Number of times ILMI should retry before declaring ILMI connectivity as lost. Type: Optional Valid values: 0-65535 Default value: 4

Mode

Super-User

Example

```
$ create ilmi intf ifname atm-0 enable vpi 10 vci 5 timeout 3  
keepalive 5 maxretry 11
```

Output

Verbose Mode On:

Entry Created

```
Interface      :      : atm-0      Status      : Enable  
VPI           : 10      VCI           : 5  
Timeout(sec)  : 3      Keep Alive (sec)      : 5  
Max Retries   : 11      Version      : 4.0
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Interface</i>	It specifies the ATM port on which ILMI based auto configuration is to be configured.
<i>Status</i>	Whether ILMI based auto configuration is enabled or not on this interface.
<i>VPI</i>	VPI to be used for ILMI SNMP message exchanges
<i>VCI</i>	VCI to be used for ILMI SNMP message exchanges.
<i>Timeout</i>	Timeout value for SNMP Get/ Set messages exchanged between peer IMEs.
<i>Keep Alive</i>	The time-interval, ILMI should use to poll for peer ILMI's availability.
<i>Max Retries</i>	Number of times ILMI should retry before declaring ILMI connectivity as lost.
<i>Version</i>	The version of ILMI

Caution

Enabling the ILMI interface only marks the state of the interface as enabled. The actual procedure begins only after the trigger ilmi command is given, or after the modem is rebooted. On the other hand, to disable the procedure, it is sufficient set the ILMI interface state as disabled.

References

- ❖ get ilmi intf command
- ❖ modify ilmi intf command
- ❖ modify ilmi trigger command
- ❖ trigger ilmi command
- ❖ get ilmi access protocol command

3.22 create ip route

Description

Use this command to create a routing table entry.

Command Syntax

```
create ip route ip dest-ip-address gwyip gwy-ip-
address mask net-mask
```

Parameters

Name	Description
<i>ip dest-ip-address</i>	Destination IP address of this route. Type: Mandatory Valid values: Any valid class A/B/C address
<i>gwyip gwy-ip-address</i>	The IP address of the next hop for this route. Type: Mandatory Valid values: Any valid class A/B/C address
<i>mask net-mask</i>	The Mask of the destination IP Address. Type: Mandatory Valid values: 128.0.0.0 – 255.255.255.254

Mode

Super-User

Example

```
$ create ip route ip 192.168.2.40 gwyip 192.168.1.1 mask
55.255.255.0
```

Output

Verbose Mode On:

Entry Created

```
Destination      Mask           Gateway      If-name      Route  Route  Age(sec)
                Type           Orig
-----
192.168.2.40    255.255.255.0  192.168.1.1  veth-0      IND    LCL    0
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Destination</i>	Destination IP address of this route
<i>Mask</i>	The Mask of the destination IP Address
<i>Gateway</i>	The IP address of the next hop for this route
<i>If-Name</i>	The local interface through which the next hop of this route will be reached
<i>Route Type</i>	The type of route. It may be: dir (for Direct), ind (for Indirect), or inv (for invalid route)
<i>Route Orig</i>	The routing mechanism through which this route was learned. It may be: NET (for Network Management), LCL (for Local), RIP, ICMP, DYI (Dynamic through Interface creation)
<i>Age</i>	The number of seconds since this route was last updated or otherwise determined to be correct

Caution

None.

References

- ❖ `get ip route` command
- ❖ `delete ip route` command
- ❖ `ip stats` related commands
- ❖ `ip cfg` related commands
- ❖ `ip address` related commands
- ❖ `arp` related commands

3.23 create ipf rule entry

Description

This command is used for creating an IP filter rule.

Command Syntax

```
create ipf rule entry
ruleid rule-id
[ifname interface-name | public | private | dmz | all]
[dir in | out]
[inifname interface-name | public | private | dmz | all]
[act accept | deny]
[log enable | disable]
[enable | disable]
[srcaddr {t | l | teq | gt | gteq | eq | neq <ddd.ddd.ddd.ddd>}{{range | erange}
<ddd.ddd.ddd.ddd> <ddd.ddd.ddd.ddd>}}any | self]
[destaddr {t | l | teq | gt | gteq | eq | neq
<ddd.ddd.ddd.ddd>}{{range | erange} <ddd.ddd.ddd.ddd>
<ddd.ddd.ddd.ddd>}}any | bcast | self]
[srcport {t | l | teq | gt | gteq | eq | neq {num
<decvalue>}|echo | discard | chargen | ftp | telnet | smtp | dns | boot | ftp
| http | pop3 | snmp >}}{{range | erange} <decValue> <decValue>}}any]
[destport {t | l | teq | gt | gteq | eq | neq {num
<decvalue>}|echo | discard | chargen | ftp | telnet | smtp | dns | boot | ftp
| http | pop3 | snmp >}}{{range | erange} <decValue> <decValue>}}any]
[icmptype {eq | neq <decValue>}}any]
[icmptype {eq | neq | echo | req | unreach | redir | echo | rep | {num
<decValue>}}any]
[transprot {eq | neq TCP | UDP | ICMP | {num <decValue>}}any]
```

[tcpflag syn|nosyn|any]
 [storestate enable|disable]
 [seclevel {high|medium|low}+] [blastprotect enable|disable] [logtag "log-tag"] [isfrag yes|no|ignore] [isipopt yes|no|ignore]
 [pktsize {lt|lteq|gt|gteq|eq|neq <decvalue>}|any]
 [todfrom <hh:mm:ss>] [todto <hh:mm:ss>] [todstatus enable|disable]

Parameters

Name	Description
<i>ruleid rule-id</i>	The index given by the caller to identify the rule entry. Type: Mandatory Valid values: 1-4294967295
<i>ifname interface-name public private dmz all</i>	This specifies the IP enabled physical interface to be associated to this Rule. 'ALL' indicates that Rule is to be associated to all interfaces. Public, Private or DMZ indicates that rule is to be associated with public, private or DMZ type of interfaces respectively. Type: Optional Valid values : eth-0,veth, eoa,ppp,usb or public/private/dmz interfaces. Default value : all
<i>Dir in out</i>	Specifies the direction of data flow on which filtering is to be applied. Type: Optional Valid values: in, out Default value: out
<i>Act accept deny</i>	Specifies the action to be taken when a packet matches a rule. Type: Optional Valid values: accept, deny Default value: deny
<i>[log enable disable]</i>	This flag controls the logging of matched packets. Each log will contain IP header and TCP/UDP header or ICMP fields, if available. Type: Optional Valid values: enable disable Default value: disable
<i>Srcaddr {lt lteq gt gteq eq neq <ddd.ddd.ddd.ddd>} {{range erange} <ddd.ddd.ddd.ddd> <ddd.ddd.ddd.ddd>} any</i>	Specifies the matching criteria for source IP address. Type: Optional Valid values: lt (less than), lteq (less than or equal to), gt (greater than), gteq (greater than or equal to), eq (equal to), neq (not equal to), range (in the range), erange (out of the range) and any. Any is used when no comparison has to be done. For range and erange, both the specified IP addresses are inclusive. Default value: any
<i>Destaddr {lt lteq gt gteq eq neq <ddd.ddd.ddd.ddd>} {{range erange} <ddd.ddd.ddd.ddd> <ddd.ddd.ddd.ddd>} any</i>	Specifies the matching criteria for destination IP address. Type: Optional Valid values: lt (less than), lteq (less than or equal to), gt (greater than), gteq (greater than or equal to), eq (equal to), neq (not equal to), range (in the range), erange (out of the range) and any. Any is used when

any	no comparison has to be done. For range and erange, both the specified IP addresses are inclusive. Default value: any
Srcport {lt lteq gt gteq eq neq {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp >} {{range erange} <decValue> <decValue>} any]	Specifies the matching criteria for source port Type: Optional Valid values: lt (less than), lteq (less than or equal to), gt (greater than), gteq (greater than or equal to), eq (equal to), neq (not equal to), range (in the range), erange (out of the range) and any. Any is used when no comparison has to be done. For range and erange, both the specified values are inclusive. This field can have valid values of echo, discard, chargen, ftp, telnet, smtp, dns, boot, tftp, http, pop3, snmp and any decimal value. Default value: any
Destport {lt lteq gt gteq eq neq {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp >} {{range erange} <decValue> <decValue>} any self	Specifies the matching criteria for destination Port. Type: Optional Valid values: lt (less than), lteq (less than or equal to), gt (greater than), gteq (greater than or equal to), eq (equal to), neq (not equal to), range (in the range), erange (out of the range) and any. Any is used when no comparison has to be done. For range and erange, both the specified values are inclusive. This field can have valid values of echo, discard, chargen, ftp, telnet, smtp, dns, boot, tftp, http, pop3, snmp and any decimal value. Default value: any
Icmpcode {eq neq <decValue>} any	Specifies the matching criteria for ICMP code value. Type: Optional Valid values: Decimal value(0-255) which is specified in case of ICMP packets need filtering based on code field in ICMP header. Any is used when no comparison has to be done. Default value: any
Icmptype {eq neq echoreq unreach redir echorep {num <decValue >} any	Specifies the matching criteria for ICMP Type Type. Optional Valid values: Decimal value (0-255) which is specified in case of ICMP packets need filtering based on type field in ICMP header. It can also take values echoreq, unreach, redir, echorep. Any is used when no comparison has to be done. Default value: any
transprot {eq neq TCP UDP ICMP <decValue>} any	Specifies the matching criteria for transport protocol field. Type: Optional Valid values: TCP, UDP, ICMP, <decValue> Default value: any
inifname interface- name public private dmz all	This field specifies the input interface id which may be used to dictate the rules like accept/deny all traffic from a specific interface or a specific type of interface namely Public, Private, or DMZ. So, this field can be specified only if direction is out. Type : Optional Valid values : eth-0,veth, eoa,ppp,usb or all interfaces. Default value : all
enable disable	This specifies administrative status of Rule entry. Type: Optional Valid values: enable or disable Default value: disable
tcpflag syn nosyn any	Specifies filtering criteria for TCP packet types. Type: Optional

	Valid values: syn or nosyn or any Default value: any
storestate enable disable	If this flag is enabled then stateful filtering is done and the rule action is also applied in the other direction on the given interface. Type: Optional Valid values: enable or disable Default value: disable
seclevel high,medium,low	It specifies at which security level(s) this rule is applicable. A rule can be applicable at multiple security levels. Type : Optional Valid values : high,medium and low Default Value : low
blisprotect enable disable	This specifies whether source of the packet should be blacklisted if it matches with the rule. It will be applicable to deny kind of rules. Type : Optional Valid values : enable or disable Default Value : enable
logtag "log-tag"	This specifies the Filter logging tag, which will be added to all the logs generated due to the rule Type : Optional Valid values : Display string of 16 char in quotes Default Value : NULL
isfrag yes no ignore	yes: Rule is applicable to fragmented packets only.no: Rule is applicable to non-fragmented packets only.ignore: Applicable irrespective of whether the packet is a fragment or not. Type : Optional Valid values : yes, no or ignore Default Value : ignore
isipopt yes no ignore	yes: Rule is applicable to IP packets with IP options only.no: Rule is applicable to IP packets without IP options only.ignore: Rule is applicable irrespective of whether the packet contains IP options or not. Type : Optional Valid values : yes, no or ignore Default Value : ignore
pktsize {lt lteq gt gteq eq neq <decvalue>} any <decvalue>} any	pktsize {lt lteq gt gteq eq neq <decvalue>} any Rule is applicable if packet size value in IP header conforms to this criterion. Any implies that packet size value is to be ignored. Type : Optional Valid values : 0- 65535 Default Value : any
Todfrom <hh:mm:ss>	This field specifies the wall time for starting a Time of Day based rule Type : Optional Valid values : 00:00:00 to23:59:59 Default Value : 00:00:00
Todto <hh:mm:ss>	This field specifies the wall time for stopping a Time of Day based rule. Type : Optional Valid values : 00:00:00 to23:59:59 Default Value : 23:59:59
todstatus enable disable	This field specifies whether a Time of Day based rule should be applied for duration specified using start time and stop time. Active indicate that the TOD based rule should be applied from Start time to Stop time, while Inactive indicates that rule is not applicable from

	Start Time to stop time but it is applicable for remaining time of the day. Type : Optional Valid values : enable or disable Default Value : enable
--	--

Mode

Super-User.

Example

```
$ create ipf rule entry ruleid 1 ifname eth-0 dir out inifname all act
accept log enable enable srcaddr lt 172.25.8.76
destaddr range 172.25.8.70 172.25.8.90 srcport erange 10 20
destport neq 3 icmpcode neq 10 icmptype eq unreachable
transprot eq TCP tcpflag syn storestate enable
seclvl high blacklist enable isfrag yes isipopt no pktsize lt 10
todfrom 01:02:30 todto 02:01:30 todstatus enable
```

Output

Verbose Mode On

Entry Created

```
Rule id      : 1      Interface      : eth-0
Rule Admin status : Enable      Rule Oper Status : Enable
In interface   : ALL      Direction      : Out
Security Level  : High      Blacklist Status : Enable
Logging        : Enable      Action          : Accept
Log Tag        : -
IP Frag Pkt    : Yes        IP Opt Pkt      : No
TCP Flag       : Syn        Store State     : Enable
Src Addr       : Equal      172.25.8.76
Dest Addr      : Range      172.25.8.70    172.25.8.90
Src Port       : Out Of Range 10              20
Dest Port      : Not Equal   3
ICMP Code      : Not Equal   10
ICMP Type      : Equal      unreachable
TransProt      : Equal      TCP
IP Pkt Size    : Less Than   10
TOD Rule       : Enable Between 01:02:30          02:01:30
```

Verbose Mode Off

Entry Created

Output field description

Field	Description
-------	-------------

<i>ruleid</i>	The index given by the caller to identify the rule entry.
<i>Rule Admin Status</i>	This specifies administrative status of Rule entry.
<i>Interface</i>	This specifies the ip enabled physical interface to be associated to this Rule. 'ALL' indicates that Rule is to be associated to all interfaces
<i>In Interface</i>	This field specifies the input interface id which may be used to dictate the rules like deny/accept all traffic from a specific interface. So, this field can be specified only if <i>direction</i> is out.
<i>Direction</i>	This specifies the direction of Data flow on which filtering is to be applied.
<i>Action</i>	This specifies the action to be taken when a packet matches a rule .
<i>Logging</i>	This specifies the criteria for the logging of packets. Each log will contain IP Header and TCP/UDP header or ICMP fields, if available.
<i>Log Tag</i>	This specifies the Filter logging tag, which will be added to all the logs generated due to the rule
<i>Scr Addr</i>	This field specifies the matching criteria for source IP Address along with the source IPAddress value and the destination IPAddress value. The source or destination or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
<i>Dest Addr</i>	This field specifies the matching criteria for destination IP Address along with the start destination IPAddress value and end destination IPAddress value. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
<i>Src Port</i>	This field specifies the matching criteria for source port along with the start of src port and the end of src port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcast.
<i>Dest Port</i>	This field specifies the matching criteria for destination Port along with the start dest port and the end dest port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcast.
<i>ICMP Code</i>	This field specifies the matching criteria for ICMP code value along with the code field in ICMP header in case of ICMP packets.
<i>ICMP Type</i>	This field specifies the matching criteria for ICMP Type along with the type field in ICMP header in case of ICMP packets.
<i>TransProt</i>	This field specifies the matching criteria for transport protcol field along with the transport layer protocol number as per IANA.
<i>TCP Flag</i>	This specifies filtering criteria for TCP packet types.
<i>Store State</i>	This specifies whether stateful filtering is done or not
<i>Security Level</i>	This specifies the association of rule with system wide service protection level.
<i>Blacklist Status</i>	This specifies whether source of the packet should be put in blacklist if it matches with the rule. It will be applicable to deny kind of rules
<i>IP Frag Pkt</i>	This specifies whether the rule is applicable to fragmented packets, non fragmented packets or in both cases.
<i>IP Opt Pkt</i>	This specifies whether the rule is applicable to IP packet with or without IP options or in both cases.

<i>IP Pkt Size</i>	This field specifies the matching criteria for IP Pkt Size along with IP packet filtering attribute . It should be compared against the packet size value in IP header.
<i>TOD Rule</i>	This field specifies whether the rule should be applied for the duration specified."Enable Between" indicates that the rule is applied between the specified time duration."Disable Between" indicates that rule is not applicable between the specified duration, but it is applicable for remaining time of the day.
<i>Rule Oper Stat</i>	A rule will be operationally enabled if and only if it is administratively enabled, its Time of Day status as per current time is Enable, and if the rule's security level matches the global security level as shown by get ipf global.

Caution

Some standard port numbers, as mentioned in the list below, are used for the following service names, irrespective of the transport protocol selected.

References

- ❖ `modify ipf rule entry command`
- ❖ `get ipf rule entry command`
- ❖ `delete ipf rule entry command`

3.24 create ipoa intf

Description

This command is used for creating an IPoA (IP over ATM) interface.

Command Syntax

```
create ipoa intf ifname interface-name ip ip-address mask net-mask [type 1577|non1577] [inside|outside|none] [ifsectype public|private|dmz] [gwy <ddd.ddd.ddd.ddd>] [droute true|false] [usedhcp true/false]
```

Parameters

Name	Description
<i>Ifname</i> <i>interface-name</i>	This parameter uniquely identifies the name of the IPoA interface. Type: Mandatory Valid values: ipoa-0-*,ipoa-1 etc.
<i>ip ip-address</i>	The IP address to be assigned to the interface. Type: Mandatory Valid values: Valid IP Address.
<i>mask net-mask</i>	This parameter specifies the subnet mask to be applied to the IP address.

	Type: Mandatory Valid values: 255.0.0.0 – 255.255.255.255
type <i>1577 non1577</i>	This parameter specifies the type of IPoA interface. Type: Optional Valid Values : 1577 or non1577 Default Value: non1577
inside outside none	This specifies the NAT direction. Type: Optional Valid values: inside, outside, none Default value: outside
ifsectype public private dmz	Interface security type. Type: Optional Valid values : public, private or dmz Default Value : public
[gwy <ddd.ddd.ddd.dd d>]	Gateway IP address Type: Optional Valid values : any valid IP address Default Value : 0.0.0.0
droute true false]	Default Route Type: Optional Valid values : true or false Default Value : False

Mode

Super-User.

Example

```
$ create ipoa intf ifname ipoa-0 ip 192.168.1.1 mask
255.255.255.0 type 1577 inside ifsectype public gwy
0.0.0.0 droute false
```

Output

Verbose Mode On

```
Entry Created
  IfName           : ipoa-0                               UseDHCP           : true
  Type             : non1577                             Interface Sec Type : Public
  Configured IP Address: 172.25.12.74   Mask              : 255.255.0.0
  DRoute          : False                               Gateway           : 0.0.0.0
  NAT Direction   : OUT                                Oper Status       : Down
```

Verbose Mode Off

Entry Created

Output field description

Field	Description
If-Name	The name of the IPoA interface which has been created.
UseDHCP	This specifies whether a DHCP client is used to obtain the IP address for this interface from a DHCP server, or not.
Type	This specifies the type of IPoA interface.
Interface Sec Type	Interface security type
Configured IP	IP address assigned to the IPoA interface.

Address	
Mask	Network mask to be applied to the IP Address.
Droute	Default Route
Gateway	Gateway IP Address.
Nat Direction	This specifies the NAT direction, which may be: inside, outside or none.
Oper Status	The actual/current state of the interface. It can be either Up or Down

Caution

IPoA interface will come up only when ipoa map is created fr that interface.

References

❖ `get ipoa intf command`

`delete ipoa intf command`

`create ipoa map command`

`delete ipoa map command`

3.25 create ipoa map

Description

Use this command to associate an IP over ATM (IPoA) interface with an AAL5 interface.

Command Syntax

```
create ipoa map ifname interface-name lowif low-  
interface- name
```

Parameters

Name	Description
<i>Ifname interface-name</i>	This parameter uniquely identifies the name of the IPoA interface. Type: Mandatory Valid values: ipoa-0, ipoa-1 etc.,.
<i>Lowif low-interface-name</i>	This parameter specifies the lower interface (ATM VC interface) to be associated with IPoA interface. Type: Mandatory Valid Values: aal5-0, aal5-1 etc.,.

Mode

Super-User.

Example

```
$ create ipoa map ifname ipoa-0 lowif aa15-0
```

Output

Verbose mode on:

Entry Created

```
IfName      LowIfName    Peer IP Address
-----
ipoa-0      aal5-0       172.25.1.130
```

Verbose mode off:

Entry Created

Output Field description:

Field	Description
<i>IfName</i>	The name of the IPoA interface.
<i>LowIfName</i>	Specifies the lower (ATM VC) interface.
<i>Peer IP Address</i>	IP address of peer.

Caution

None

References

- ❖
- ❖
- ❖
- ❖
- ❖
- ❖

3.26 create l2tp tunnel config

Description

Use this command to create an L2TP tunnel.

Command Syntax

```
create l2tp tunnel config
ifname interface-name
localip local-ip-address
```

localhostname *local-host-name*
 remoteip *remote-ip-address*
 remotehostname *remote-host-name*
 [start|stop]
 [authtype *simple|challenge|none*]
 [secret *tunnel-secret*]
 [hellointerval *hello-interval*]
 [idletimeout {*infinite|{num <decValue>}}*]}
 [crws *contol-recv-window-size*]
 [maxretx *max-retransmission*]
 [maxretxtimeout *max-retransmission-timeout*]
 [payloadseq *never|always*]
 [transport *udpip*]
 [initiator *local|remote*]
 [enable|disable]

Parameters

Name	Description
<i>ifname interface-name</i>	Identifies the interface name for L2TP layer. Type: Mandatory Valid values: l2t-0-l2t-*
<i>localip local-ip-address</i>	This field specifies the address of the local endpoint of the tunnel, or 0.0.0.0 if the device is free to choose any of its addresses at tunnel establishment time. Type: Mandatory Valid values: Valid IP address.
<i>localhostname host-name</i>	Name of the local End-point of the tunnel. Type: mandatory Valid values: Display string of 255 characters
<i>remoteip remote-ip-address</i>	This field specifies the address of the remote end-point of the tunnel to which the tunnel is to be established. Type: mandatory Valid values: Valid IP address. Default Value: 0.0.0.0
<i>remotehostname remote-host-name</i>	Name of the remote End-point of the tunnel Type: Mandatory Valid values: Display string of 255 characters.
<i>start stop</i>	This attribute specifies the action to be taken for the tunnel. True establishes the Tunnel. False tears the tunnel down. Type: Optional Valid values: Start
<i>authtype simple challenge none</i>	This object describes how L2TP tunnel peers are to be authenticated Type: optional Valid values: simple, challenge, none

	Default Value: none
<i>secret tunnel-secret</i>	This object is used to configure the shared secret used during the tunnel authentication phase of tunnel establishment if authtype is challenge. Type: optional Valid values: Hex Value - maximum of 64 octet length.
<i>Hellointerval hello-interval</i>	This object defines the interval (in sec) in which Hello packets are to be sent to the tunnel peer. A value '0' indicates that Hello packets will not be sent to tunnel peer. Type: optional Valid values: 0..3600(sec) Default Value: 60
<i>idletimeout idle-timeout</i>	This object defines the period of time (in seconds) that an established tunnel with no sessions will wait before disconnecting the tunnel. A value of '0' indicates that the tunnel will disconnect immediately after the last session disconnects. "infinite" leaves the tunnel up indefinitely. Type: optional Valid values: 0.86400(sec), infinite Default Value: 0
<i>crws contol-recv-window-size</i>	This object defines the control channel receive window size. It specifies the maximum number of packets the tunnel peer can send without waiting for an acknowledgement from this peer. Type: optional Valid values: 1..10 Default Value: 4
<i>maxretx max-retransmission</i>	This object defines the number of retransmissions, which the tunnel will attempt before assuming that the peer is no longer responding. A value of '0' indicates that this peer will not attempt to retransmit an unacknowledged control packet. Type: optional Valid values: 0..32 Default Value: 5
<i>maxretxtimeout max-retransmission-timeout</i>	This object defines the maximum retransmission timeout interval that the tunnel will wait before retransmitting a control packet that has not been acknowledged. Type: optional Valid values: 1..32 Default Value: 16
<i>payloadseq never always</i>	This object determines whether or not session payload packets will be requested to be sent with sequence numbers from tunnel peer's. Type: optional Valid values: never, always Default Value: never
<i>transport udpip</i>	This object defines the underlying transport media that is in use for this tunnel entry. Type: optional Valid values: udpip Default Value: udpip
<i>initiator local remote</i>	This object indicates whether the tunnel will be initiated locally or not. Type: optional Valid values: local, remote Default Value: local

<i>Enable disable</i>	Admin status of interface Type: optional Valid values: enable or disable Default Value: enable
-------------------------	---

Mode

Super-User.

Example

```
$ create l2tp tunnel config ifname l2t-0 localip 178.10.10.10
remoteip 178.10.11.10 start authtype simple secret passwd
hellointerval 300 idletimeout num 100 crws 5 maxretx 10
maxretxtimeout 10 payloadseq always transport udpip initiator local
localhostname titanium remotehostname columbia
```

Output

Verbose mode on:

Entry Created

```
If Name : l2t-0
Admin Status : UpOper Status : Up
Local IP-address : 178.10.10.10 Remote IP-address : 178.10.11.10
Hello Interval : 300 Idle Timeout : 100
Max Retx Attempt : 10 Max Retx Timeout : 10
Initiator : local Payload Sequencing: always
Authentication Type : simple Transport : udpip
Control RWS : 5
Shared Secret : passwd
Local Host name : titanium
Remote Host name : columbia
```

Verbose mode off:

Entry Created

Output Field description:

Field	Description
<i>If-name</i>	Identifies the interface name for L2TP layer.
<i>Local IP-address</i>	This field specifies the address of the local endpoint of the tunnel
<i>Local Host name</i>	This field specifies the address of the local endpoint of the tunnel
<i>Remote IP-address</i>	This field specifies the address of the remote endpoint of the tunnel to which the tunnel is to be established.
<i>Admin Status</i>	This field specifies the adminstatus of the of the l2tp interface.
<i>Oper Status</i>	This field specifies the Operstatus of the of the l2tp interface.

<i>Remote Host name</i>	This field specifies the hostname of the remote end-point of the tunnel to which the tunnel is to be established.
<i>Hello Interval</i>	Defines the interval (in sec) in which Hello packets are to be sent to the tunnel peer
<i>Idle Timeout</i>	Defines the period of time (in seconds) that an established tunnel with no sessions will wait before disconnecting the tunnel.
<i>Control RWS</i>	Defines the control channel receive window size
<i>Max Retx Timeout</i>	Defines the maximum retransmission timeout interval that the tunnel will wait before retransmitting a control packet that has not been acknowledged.
<i>Initiator</i>	This indicates whether the tunnel will be initiated locally or not.
<i>Payload Sequencing</i>	This object determines whether or not session payload packets will be requested to be sent with sequence numbers from tunnel peer's. The value never(2) indicates that L2TP will never initiate sequencing but will do sequencing if asked. The value always(3) indicates that L2TP will send the sequencing Required AVP during session establishment
<i>Authentication Type</i>	Describes how L2TP tunnel peers are to be authenticated
<i>Transport</i>	Defines the underlying transport media that is in use for this tunnel entry.
<i>Shared Secret</i>	Shared secret is used during the tunnel authentication phase of tunnel establishment if authtype is challenge
<i>Max Retx Attempt</i>	Defines the number of retransmissions, which the tunnel will attempt before assuming that the peer is no longer responding.

Caution

None.

References❖
❖**3.27 create nat rule entry**

Description

Use this command to create a NAT rule.

Command Syntax

```
create nat rule entry ruleid rule-id
{basic|filter|napt|bimap|rdr|pass} [prot {any|tcp|udp|
icmp|num prot-number}] [ifname interface -
name] [lcladdrfrom local-address-from] [lcladdrto
local-address-to] [destaddrfrom dest-address-
from] [destaddrto dest-address- to] [destportfrom
```

```

{num
<decvalue>}|echo|discard|chargen|ftp|telnet|smtp|dns|boot|
ftp|http|pop3|snmp
] [destportto {num
<decvalue>}|echo|discard|chargen|ftp|telnet|smtp|dns|boot|ftp|
http|pop3|snmp] [glbaddrfrom global-address-from]
[glbaddrto global-address-to] [lclport {num
<decvalue>}|echo|discard|
chargen|ftp|telnet|smtp|dns|boot|ftp|http|pop3|snmp
]

```

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the NAT rule which is being created Type: Mandatory Valid values: 0 – 4294967295
<i>basic filter napt bimap rdr pass</i>	This specifies the type of rule. The rule type is also referred to as the rule flavor. Type: Mandatory Valid values: basic, filter, napt, bimap, rdr, pass
<i>ifname interface-name</i>	This specifies the Interface or the outgoing device on which this Nat Rule would apply. Type: Optional Valid values: eth-0, veth-0 - *, eoa-0 - *, ppp-0 - * Default value: The rule applies on all outgoing interfaces
<i>prot any tcp udp icmp num <prot-number></i>	This specifies the protocol type for which the rule is meant. Type: Optional Valid values: any, tcp, udp, icmp or 0-255 (Valid IANA specified protocol) Default value: Rule is valid for all Protocols (any)
<i>lcladdrfrom local-address- from</i>	This is the starting address when a range of IP addresses are mapped. In case of bimap, the user can only specify a valid Host Address. In case of rdr, this is the translated local network address; if lcladdrto is different from this, redirection will be working in Load-Sharing mode. Type: Optional. Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>lcladdrto local-address-to</i>	This is the last IP address of the range of IP addresses mapped by this rule. In case of bimap, this can only be same as lcladdrfrom. Type: Optional. Valid values: 0.0.0.0 – 255.255.255.255 Default value: 255.255.255.255
<i>destaddrfrom dest-address- from</i>	This specifies the start of the range of destination IP addresses to be matched. Type: Optional. This field is valid only when the rule type is filter. Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0

<i>destaddrto dest-ddress-to</i>	This specifies the end of the range of the destination IP addresses to be matched. Type: Optional. This field is valid only when the rule type is filter. Valid values: 0.0.0.0 – 255.255.255.255 Default value: 255.255.255.255
<i>destportfrom {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp</i>	This specifies the start of the range of the destination port numbers to be matched. Type: Optional. This field is valid only when the rule type is filter or rdr Valid values: echo, discard, chargen, ftp, telnet, smtp, dns, boot, tftp, http, pop3, snmp and any decimal value. Default value: 65535
<i>destportto {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp</i>	This specifies the end of the range of destination port numbers to be matched. Type: Optional. This field is valid only when the rule type is filter or rdr Valid values: echo, discard, chargen, ftp, telnet, smtp, dns, boot, tftp, http, pop3, snmp and any decimal value. Default value: 65535
<i>glbaddrfrom global-address- from</i>	This specifies the first globally unique IP address of the range of IP addresses being mapped. In case of bimap, this has to be equal to glbaddrto. This is not valid in case of pass and will be ignored. Type: Optional. Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>glbaddrto global-address-to</i>	This specifies the last globally unique IP address of the range of IP addresses used in the mapping. In case of bimap, this has to be same as glbaddrto. This is not valid in case of pass and so will be ignored. In case of rdr, IP addresses in range of glbaddrfrom and glbaddrto will be redirected. If both of these parameters are set to 0.0.0.0, all the incoming packets will be redirected. In case of map, napt, filter, if glbaddrfrom and glbaddrto both are equal and set to 0.0.0.0, then packet will take the interface address. Type: Optional Valid values: 0.0.0.0 – 255.255.255.255. Default value: 0.0.0.0
<i>lclport {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp</i>	This is the translated port number to be used in case of rdr. In the other NAT flavors, this will be ignored. Type: Optional only when the rule type is rdr. In all other cases it will be ignored. Valid values: echo, discard, chargen, ftp, telnet, smtp, dns, boot, tftp, http, pop3, snmp and any decimal value. Default value: 0

Mode

Super-User

Example

\$ create nat rule entry ruleid 1 napt

Output

Verbose Mode On:

Entry Created

```
Rule Id           : 1                Flavor           : NAPT
Interface        : ALL              Protocol         : ANY
Local Addr From  : 0.0.0.0          Local Addr To   : 0.0.0.0
Dest Addr From   : 0.0.0.0          Dest Addr to    : 0.0.0.0
Global Addr From : 0.0.0.0          Global Addr To  : 255.255.255.255
Dest Port From   : 0                Dest Port To    : 0
Local Port       : 0
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Rule Id</i>	This identifies the NAT rule, information pertaining to which is being displayed.
<i>Flavor</i>	This specifies the type of rule. It may be: BASIC, FILTER, NAPT, BIMAP, REDIRECTION (for RDR) and PASS.
<i>Interface</i>	This specifies the Interface or the outgoing device on which this Nat Rule would apply. It may be: eth-0, ppp-0, ppp-1...
<i>Protocol</i>	This specifies the protocol type for which the rule is meant. It may be: Any, TCP, UDP, ICMP or IANA-specified protocol between 0 to 255.
<i>Local Addr From</i>	This is the starting address when a range of private IP addresses are mapped
<i>Local Addr To</i>	This is the last IP address of the range of private IP addresses mapped by this rule.
<i>Dest Addr From</i>	This specifies the start of the range of destination IP address of the packet to be matched.
<i>Dest Addr To</i>	This specifies the end of the range of destination IP address to be matched
<i>Dest Port From</i>	This specifies the start of the range of destination port numbers to be matched.
<i>Dest Port To</i>	This specifies the end of the range of destination port numbers to be matched.
<i>Global Addr From</i>	This specifies the first globally unique IP address of the range of IP addresses being mapped.
<i>Global Addr To</i>	This specifies the last globally unique IP address of the range of IP addresses used in the mapping.
<i>Local Port</i>	This is the translated port number to be used .

Caution

None.

References

- ❖ delete nat rule entry command
- ❖ get nat rule entry command
- ❖ nat global info related commands
- ❖ nat rule statistics related commands

❖ nat rule status related commands.

3.28 create pfw rule entry

Description

Use this command to create a rule for filtering.

Command Syntax

```
create pfw rule entry ruleid rule-id [ifname interface-
name|all|public|private|dmz] [dir in|out] [inifname
incoming- if-name|all|public|private|dmz]
[enable|disable] [log disable|match|nomatch|all] [act
accept|deny|callmgmt]
```

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the rule index with which a rule should be created. Type: Mandatory Valid values: 0 - 65535
<i>ifname interface-name all</i>	This specifies the interface name for the rule. Type: Optional Valid values: eth-0, veth-0, veth-1, veth-2, veth-3, eoa-0 - *, ppp-0 - *, or all. Default value: all
<i>inifname incoming- if-name</i>	In case of a rule for an outgoing interface, this specifies the incoming interface. Only packets which are received on the inifname and which are going out via the ifname will be matched against this rule. Type: Optional Valid values: eth-0, veth-0, veth-1, veth-2, veth-3, eoa-0 - *, ppp-0 - *, all. This can be specified only when the direction is out. Default value: all
<i>dir in out</i>	This specifies the filtering direction to which this rule is applied. Type: Optional Valid values: in or out Default value: out
<i>enable disable</i>	This specifies whether this rule should be enabled or disabled. Type: Optional Valid values: enable or disable Default value: disable
<i>Log disable match nomatch all</i>	This specifies the log option of this rule. Type: Optional Valid values: disable or match or nomatch or all. disable - No packets are logged. match - All matching packets are logged. nomatch - All packets which do not match this rule are logged. all - All packets are logged, whether they match the rule or not. Default value: disable
<i>Act accept deny </i>	This specifies the action to be taken when a packet matches

<i>callmgmt</i>	this rule. Type: Optional Valid values: accept or deny or callmgmt. accept – Packets matching this rule are accepted. deny – Packets matching this rule are dropped. callmgmt - If a packet matches this rule, it is passed on to management function Default value: accept
-----------------	---

Mode

Super-User.

Example

\$ create pfrw rule entry ruleid 2 ifname eth-0 enable

Output

Verbose Mode On:

Entry Created

```
Rule id      : 2                Rule status   : Enable
Interface    : eth-0           In interface  : All
Direction    : Out            Action        : Accept
Logging      : Disable
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Rule id</i>	This identifies the rule index of the rule.
<i>Rule Status</i>	This specifies whether this rule is enabled or disabled.
<i>Interface</i>	This specifies the interface name for a rule.
<i>In Interface</i>	In case of a rule for an outgoing interface, this specifies the incoming interface. Only packets which are received on the inifname and which are going out via the ifname are matched against this rule.
<i>Direction</i>	This specifies the filtering direction to which this rule is applied.
<i>Action</i>	This specifies the action taken when a packet matches this rule
<i>Logging</i>	This specifies the log option of this rule

Caution

Raw filter rules should be configured with care since configuring incorrect rules may render the system unusable.

References

❖ pfrw commands.

3.29 create pfraw subrule entry

Description

Use this command to create a sub-rule for an already existing rule.

Command Syntax

```
create pfraw subrule entry ruleid rule-id subruleid sub-
rule- id mask mask-value [start
linkh|iph|tcph|tcpd|udph|
udpd|icmph|icmpd] offset offset [enable|disable] cmpt
{eq|neq|lt|lteq|gt|gteq val}{{range low-val high-
val}}{any}
```

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the rule index of the rule for which the sub-rule has to be added. Type: Mandatory Valid values: 0 - 65535 Only existing rule ids accepted as input.
<i>subruleid sub-rule-id</i>	This specifies the sub-rule index with which a sub- rule should be created. Type: Mandatory Valid values: 0 - 254
<i>mask mask-value</i>	This specifies the mask with which the data in the packet is to be masked before using it for comparison with the values specified in cmpt. The mask is not used if cmpt is any. Type: Mandatory Valid values: any hexadecimal pattern beginning with 0x.
<i>start linkh iph tcph tcpd udph udpd icmph icmpd</i>	This specifies the beginning position in the packet for an offset. The start position can be the beginning of the header or data portions of various protocols as listed below. Type: Optional Valid values: linkh iph tcph tcpd udph udpd icmph icmpd Default value: linkh
<i>offset offset</i>	This specifies the offset with in the header or data part of the packet, calculated from the start. Type: Mandatory Valid values: 0—4294967295 Default value: 0
<i>enable disable</i>	This specifies whether this subrule should be enabled or disabled. Type: Optional Valid values: enable or disable Default value: disable
<i>Cmpt {eq neq lt lteq gt gteq val} {range low-val</i>	This specifies the type of comparison that can be done on the extracted data and the comparison value(s). Type: Mandatory Valid values: val, low-val and high-val are hexadecimal patterns to be used for comparison. low-val and high-

<i>high- val} {any}</i>	patterns to be used for comparison. low-val and high-val are used when range related comparison is to be done else val is used. The value(s) should start with 0x. If no comparison has to be done then any is given on the command line
-------------------------	--

Mode

Super-User.

Example

```
$ create pfraw subrule entry ruleid 2 subruleid 1 start linkh offset 6
mask 0x00000000ffff0000 cmpt range 0x00000000ff000000
0x00000000ffcd0000 enable
```

Output

Verbose Mode On:

Entry Created

```
Sub Rule id      : 1                Rule id          : 2
Sub Rule status  : Enable           Offset from      :
Linkh
Offset          : 6
Comp operation   : Range
Low value       : 0x00000000ff000000
High value      : 0x00000000ffcd0000
Mask            : 0x00000000ffff0000
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Sub Rule id</i>	This identifies the sub-rule index of the sub-rule.
<i>Rule id</i>	This specifies the rule index of the rule of which this is the subrule
<i>Sub Rule status</i>	This specifies whether this subrule is enabled or disabled.
<i>Offset from</i>	This specifies the start position in the packet for an offset. The start position can be the beginning of the header or data portions of various protocols.
<i>Offset</i>	This specifies the offset with in the header or data part of the packet.
<i>Comp Operation</i>	This specifies the type of comparison that is done on the extracted data and the comparison value(s)
<i>Low Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>High Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Relational.
<i>Mask</i>	This is hexadecimal pattern which specifies the mask with which the data in the packet is masked before using it for comparison.

Caution

Raw filter rules should be configured with care since configuring incorrect rules may render the system unusable.

References

❖ `create pfrac rule command`

3.30 create ppe pconf**Description**

Use this command to create an entry in the policy table for serv-to-ac policy

Command Syntax

```
create ppe pconf acname AC-name [srvname service-name]
```

Parameters

Name	Description
<i>acname</i> AC-name	This specifies the Access Concentrator name. Type: Mandatory Valid values: String of up to 63 Chars. ('A'-'Z', 'a'-'z', '0'-'9', '-', '_')
<i>srvname</i> service-name	This specifies the service name Type: Optional Valid values: String of up to 63 Chars. ('A'-'Z', 'a'-'z', '0'-'9', '-', '_')

Mode

Super-User.

Example

```
$ create ppe pconf acname AC1 srvname Srv1
```

Output

Verbose Mode On:

```
Entry Created
```

```
Ac Name:      AC1
Service Name: Srv1
```

Verbose Mode Off:

```
Entry Created
```

Output field description

Field	Description
<i>ACName</i>	This specifies the Access Concentrator name.

<i>ServiceName</i>	This specifies the service name
--------------------	---------------------------------

Caution

The specified AC name and service should be supported by the system.

References

- ❖ delete ppe pconf command
- ❖ get ppe pconf command
- ❖ ppe cfg related commands
- ❖ get ppe stats global command
- ❖ get ppe stats session command.

3.31 create ppp intf

Description

Use this command to create a PPP interface and a L2TP session.

Command Syntax

```
create ppp intf ifname interface-name lowif low-interface-name
{PPOE|PPOA|L2TP} [ip ip-address] [usedhcp {true|false}]
[inside|outside|none] [mru max-rx-unit] [magic {true|false}] [droute
{true|false}] [sname service-name] [start|stop|startondata] [usedns
true|false] [ifsectype public|private|dmz] [l2tpcalltype
outlns|outlac|inlns|inlac] [usegwy local|remote][gwyip
<ddd.ddd.ddd.ddd>]

[numif <name>]
```

Parameters

Name	Description
<i>ifname interface-name</i>	The PPP interface for the PPP Links. Type: Mandatory Valid values: ppp-0, ppp-1,...
<i>usedhcp {true false}</i>	This specifies whether DHCP is to be used to obtain additional configuration information. Note that DHCP is NOT used to get the IP address, gateway address and DNS server addresses for the PPP link since this information is always negotiated using IPCP. Type: Optional Default value: true
<i>usedns true false</i>	This specifies whether DNS server addresses are to be obtained using IPCP or not.
<i>ip ip-address</i>	If specified, it is used as the proposed IP address during address negotiation using IPCP. The address assigned after the negotiation may be different from the user specified value.

	Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>lowif low-interface- name</i>	Name of the lower interface on which PPP will run Type: Mandatory Valid values: aal5-0, aal5-1...
<i>Mru max-rx-unit</i>	The initial Maximum Receive Unit (MRU) that the local PPP entity will advertise to the remote entity. If the value of this variable is 0 then the local PPP entity will not advertise any MRU to the remote entity and the default MRU will be assumed. Type: Optional Valid values: 0 or between 1492 and Aal5 Rx Size as determined by <code>Get atm vc intf</code> Default value: 1492 or aal5 rx size whichever is less
<i>magic {true false}</i>	If set to true, the local node will attempt to perform Magic Number negotiation with the remote node. If set to false, then this negotiation is not performed. Type: Optional Default value: False
<i>PPOE PPOA L2TP</i>	This specifies the lower layer protocol used below this PPP Link Type: Mandatory
<i>l2tpcalltype outlns outlac inlns inlac</i>	This object indicates the l2tp call type. Type: optional Values: outlac, outlns, inlac, inlns
<i>sname service-name</i>	This specifies the service name used for PPPoE This field gives the criteria on the basis of which AC respond. (typically it will be ISP name) Type: Optional Valid values: string of max. length 63 ('A'- 'Z', 'a'-'z', '0'- '9', '-', '_')
<i>start stop startondata</i>	Setting of this object results in start and stop of the PPP session on this interface. If the session is already started then only stop value can be set. startondata will cause the PPP link to start only after there is some data activity. Type: Optional Default value: start
<i>inside outside none</i>	This variable specifies whether this interface's NAT direction is inside or outside. Type: Optional Default value: out
<i>droute {true false}</i>	If set to true, then the default route is chosen through this interface Type: Optional Default value: false
<i>ifsectype public private dmz</i>	Type of interface security. Type: Optional Valid values : public, private or dmz Default Value : public
<i>[usegwy local remote]</i>	This specifies whether local or remote gateway is to be used. Type: Optional Valid values: local, remote Default Value: remote
<i>gwyip <ddd.ddd.ddd.ddd></i>	This specifies the IP Address for the Gateway. Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>numif <name></i>	This specifies the interface name of the associated numbered interface.

	Type: Optional Valid values: eth-0, eth-1, Default value: If not specified, it implies that ppp interface is not associated with any numbered interface.
--	---

Mode

Super-User

Example

```
$ create ppp intf ifname ppp-0 lowif aal5-0 ppoa ifsectype public
numif eth-0 gwyip 202.1.1.2
```

Output

Verbose Mode On:

Entry Created

```
If-Name           : ppp-0           L2TP Call type      : inlac
Interface Sec Type : Public         Phy Interface        : aal5-0
Configured IP Address : 0.0.0.0       NAT Direction        : OUT
Init MRU           : 1500           Magic                : False
Encapsulation      : PPPOA          Service Name         : -
UseDhcp            : False          UseDns               : False
DRoute             : False          Status               : Start
Gateway IP Address : 202.1.1.2     Associated Num If-Name : eth-0
Use Gateway        : remote
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>If-Name</i>	This specifies the PPP interface for the PPP Links: It may be: ppp- 0, ppp-1...
<i>L2TP Call Type</i>	This field specifies the l2tp call type.
<i>Interface Sec Type</i>	Interface security type.
<i>Phy Interface</i>	This specifies Name of the lower interface on which PPP is running. It may be: aal5-0, aal5-1...
<i>Configured IP Address</i>	This specifies the IP Address for the PPP Link.
<i>NAT Direction</i>	This variable specifies whether this interface's address is inside or outside. It may be: inside, outside, none
<i>Init MRU</i>	The initial Maximum Receive Unit (MRU) that the local PPP entity will advertise to the remote entity
<i>Magic</i>	This specifies whether the local node will attempt to perform Magic Number negotiation with the remote node. It may be: True, False
<i>Encapsulation</i>	This specifies the lower layer protocol used below this PPP Link. It may be: PPPOA, PPPOE
<i>Service Name</i>	This specifies the service name used for PPPoE. It is generally the name of the ISP.
<i>UseDhcp</i>	This specifies whether DHCP is to be used for address negotiation. It may be either True or False

<i>UseDns</i>	This specifies whether DNS server addresses are to be obtained using IPCP or not.
<i>Droute</i>	Default Route
<i>Status</i>	This shows whether PPP session on this interface is active. It may be: Start, Stop, StartOnData.
<i>Gateway IP Address</i>	This specifies the IP Address of the Gateway.
<i>Associated Num If-Name</i>	This specifies the interface name of the associated numbered interface. A "-" indicates that this ppp interface is not associated with any numbered interface.
<i>Use Gateway</i>	This specifies whether local or remote gateway is to be used.

Caution

An ATM VC should pre-exist. Please refer to `create atm vc intf` command. PPP security should be properly created for successful creation of `ppp intf`.

References

- ❖ `delete ppp intf` command
- ❖ `get ppp intf` command
- ❖ `modify ppp intf` command
- ❖ `create atm vc intf` command
- ❖ `ppp lstatus` related commands
- ❖ `ppp security` related commands.

3.32 create ppp security

Description

Use this command to create a PPP security secrets entry for a PPP interface. The login and password given here are used to authenticate the PPP session for the given interface.

Command Syntax

```
create ppp security ifname interface-name [pap|chap]
login login-name passwd password
```

Parameters

Name	Description
<i>ifname</i> interface- name	This specifies the PPP interface for which the security entry is to be created Type: Mandatory Valid values: ppp-0, ppp-1..., default. The default entry gets used in case there is no specific entry for that interface.
pap chap	This is the protocol used for authentication Type: Optional Default value: pap
login login-name	This is the login name

	Type: Mandatory Valid values: String of up to 128 characters ('A'- 'Z', 'a'-'z', '0'-'9','-', '_') and any combination of printable characters excluding ",", ,
passwd password	This is the password used to authenticate the user Type: Mandatory Valid values: String of up to 128 characters ('A'- 'Z', 'a'-'z', '0'-'9','-', '_') and any combination of printable characters excluding ",", ,

Mode

Super-User

Example

\$ create ppp security ifname ppp-0 login abc passwd abc pap

Output

Verbose Mode On:

```
Entry Created
IfName   : ppp-0      Protocol  : PAP
Login    : abc
```

Verbose Mode Off:

```
Entry Created
```

Output field description

Field	Description
<i>IfName</i>	This specifies the PPP interface for which the security entry has been created It may be: ppp-0, ppp-1..., default. The default entry gets used in case there is no specific entry for that interface.
<i>Protocol</i>	This is the protocol used for authentication It may be: PAP, CHAP
<i>Login</i>	This is the login name

Caution

None.

References

- ❖ delete ppp security command
- ❖ get ppp security command
- ❖ modify ppp security command
- ❖ ppp lstatus related commands
- ❖ ppp intf related commands.

3.33 create rip intf

Description

This command allows user to start RIP protocol on the specified IP Interface.

Command Syntax

```
create rip intf ifname interface-name [metric metric-value] [send {rip1|rip2|rip1compat|none}] [senddefroute {enable|disable}] [receive {rip1|rip2|both|none}] [rcvdefroute {enable|disable}] [auth {none|text password}]
```

Parameters

Name	Description
<i>Ifname</i> interface-name	Specifies the IP Interface name on which RIP is to be started. Type: Mandatory Valid values: eth-0, veth-0 - *, ppp-0 - *, eoa-0 - *, ipoa-0-*
<i>Metric</i> metric-value	This tells the metric value attached to the interface. The metric is used by RIP in deciding which among alternate routes is the most optimal. Type: Optional Valid values: 1-15 Default value: 1
<i>send</i> {rip1 rip2 rip1compat none}	This specifies the RIP version to be used for sending RIP updates and requests Type: Optional Valid values: rip1, rip2, rip1compat, none Default value: rip1
<i>senddefroute</i> {enable disable}	If Default route is to be included in the updates sent on the interface, or not. Type: Optional Valid values: enable or disable Default value: enable
<i>receive</i> {rip1 rip2 both none}	This specifies the RIP version to be accepted while receiving RIP updates and requests and responses Type: Optional Valid values: rip1, rip2, both, none Default value: rip1
<i>Recvdefroute</i> {enable disable}	If Default route is to be processed in the updates received on the interface or not. Type: Optional Valid values: enable or disable Default value: enable
<i>auth</i> none auth text password	Authentication to be used with RIPv2 (authentication is not supported in RIPv1). If auth is text, then the password must be given. The specified password is used to authenticate RIP updates received on the interface. The same password is also used while sending message out on this interface.

	Type: Optional Valid values: none or if text then password of length up to 16 characters. Default value: none
--	---

Mode

Super-User

Example

```
create rip intf ifname ppp-0 metric 1 send rip1 senddefroute enable  
receive rip1 recvdefroute disable
```

Output

Verbose Mode On:

Entry Created

```
IP Interface Name      : ppp-0                RIP Interface Metric      : 1  
RIP Send Mode         : rip1                RIP Receive Mode         :  
rip1  
RIP Send Def Route    : Enable                RIP Recv Def Route      :  
Disable  
RIP packet auth       : None
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>IP Interface Name</i>	This tells the IP Interface name on which RIP is to be started.
<i>RIP Interface Metric</i>	This tells the metric value attached to the interface. The metric is used by RIP in deciding which among alternate routes is the most optimal.
<i>RIP Send Mode</i>	This tells the packet format used for sending RIP updates and requests
<i>RIP Receive Mode</i>	This tells the packet format accepted while receiving RIP updates and requests and responses
<i>RIP Send Def Route</i>	This tells whether default route is to be included in the updates sent on the interface, or not.
<i>RIP Recv Def Route</i>	This tells whether default route is to be processed in the updates received on the interface or not.
<i>RIP packet auth</i>	This tells whether RIP authentication is enabled or not

Caution

None.

References

❖ `modify rip global command`

3.34 create snmp comm

Description

Use this command to create an SNMP community on the SNMP agent.

Command Syntax

create snmp comm community *comm-name* [ro|rw]

Parameters

Name	Description
<i>community comm-name</i>	This specifies the Community name Type: Mandatory Valid values: String of max. 50 characters ('A'-'Z', 'a'-'z', '0'-'9', '_', '-')
<i>ro rw</i>	This specifies the access permissions given to managers with this community name. ro implies Read Only permissions and rw implies Read-Write permissions. Type: Optional Default value: ro

Mode

Super-User.

Example

\$ create snmp comm community public ro

Output

Verbose Mode On:

```
Entry Created
Access           Community
-----
RO              public
```

Verbose Mode Off:

```
Entry Created
```

Output field description

Field	Description
<i>Community</i>	This specifies the Community name
<i>Access</i>	This specifies the access permissions given to managers with this community name. It may be: RO (Read Only), RW (Read-Write)

Caution

None.

References

- ❖ get snmp comm command
- ❖ delete snmp comm command
- ❖ snmp host related commands

3.35 create snmp host

Description

This command is used for creating an SNMP host entry.

Command Syntax

```
create snmp host ip ip-addr community comm-name
```

Parameters

Name	Description
<i>community comm-name</i>	This specifies the Community name. This must be a valid community in the snmp community table. Type: Mandatory Valid values: String of max. 50 characters ('A'- 'Z', 'a'- 'z', '0'-'9', '-', '_')
<i>ip ip-addr</i>	This specifies the IP address of the manager that has access permissions for the modem. Type: Mandatory Valid values: Any valid class A/B/C IP address

Mode

Super-User.

Example

```
$ create snmp host community public ip 192.168.1.3
```

Output

Verbose Mode On:

```
Entry Created
```

```
Host Address          Community
-----
192.168.1.3          Public
```

Verbose Mode Off:

```
Entry Created
```

Output field description

Field	Description
-------	-------------

<i>Host Address</i>	This specifies the IP address of the manager that has access permissions for the modem.
<i>Community</i>	This specifies the Community name.

Caution

The SNMP Community used in the command should exist.

References

- ❖ `get snmp host command`
- ❖ `delete snmp host command`
- ❖ `snmp trap related commands`
- ❖ `snmp host related commands`

3.36 create snmp servaddr

Description

Use this command to configure the SNTP server address

Command Syntax

```
create snmp servaddr <ip-address>|dname
<domain-name>
```

Parameters

Name	Description
<code><ip-address> dname <domain-name></code>	This parameter specifies the IP address or fully qualified domain name for configuring the SNTP server address. Type: Mandatory Valid values: Valid IP address or fully qualified domain name.

Mode

Super-User.

Example

```
$ create snmp servaddr 192.168.1.1
```

Output

Verbose Mode On:

```
Entry Created
```

```
Server Addr : 192.168.1.1      Status : Standby
Domain Name : abc.com
```

Verbose Mode Off:

Entry Created

Output field description

Field	Description
<i>Server Addr</i>	IP address of the SNMP server.
<i>Status</i>	Operational Status of the SNMP server address entry.
<i>Domain Name</i>	The fully qualified domain name of the SNMP server.

Caution

The SNMP Community used in the command should exist.

References

- ❖ `delete snmp servaddr` command
- ❖ `get snmp servaddr` command
- ❖ `modify snmp cfg` command
- ❖ `get snmp cfg` command
- ❖ `get snmp stats` command.
- ❖ `reset snmp stats` command

3.37 create usb intf

Description

Use this command to create a USB interface

Command Syntax

```
create usb intf ifname interface - name [ip ip-  
address] [mask net-mask] [inside|outside|none]  
[ifsectype public|private|dmz]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the name assigned to this interface. Type: Mandatory Valid values: usb-0 - *
<i>ip ip-address</i>	The IP address to be assigned to interface. Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>mask net-mask</i>	This parameter specifies the subnet mask to be applied to the IP address. Type: Optional Valid values: 128.0.0.0 – 255.255.255.254 Default value: 0.0.0.0

<i>inside outside none</i>	This specifies the NAT direction for the interface. Type: Optional Valid values: inside, outside, none Default value: Inside if the IP address is valid and non-zero otherwise none
<i>ifsectype</i> <i>public private dmz</i>	Interface security type. Type: Optional Valid values : public, private or dmz Default Value : private

Mode

Super-User.

Example

```
$ create usb intf ifname usb-0 ip 192.168.1.1 mask
255.255.255.0 ifsectype public
```

Output

Verbose Mode On

Entry Created

IfName	If Sec Type	Ip Address	Mask	Nat Dir	Oper
usb-0	Public	192.168.1.1	255.255.255.0	Inside	Down

Verbose Mode Off

Entry Created

Output field description

Field	Description
<i>IfName</i>	The name of the interface, which has been created.
<i>Ip Address</i>	IP address assigned to the USB interface.
<i>Mask</i>	Network mask to be applied to the IP Address
<i>Nat Dir</i>	This specifies the NAT direction, which may be: inside, outside or none.
<i>Oper</i>	The actual/current state of the interface. It can be either Up or Down
<i>If SecType</i>	Interface Security Type.

Caution

None.

References

- ❖ `get usb intf command`
- ❖ `delete usb intf command`
- ❖ `modify usb intf command`

❖ get usb stats command.

3.38 create user

Description

Use this command to create a user account. At maximum four accounts can exist.

Command Syntax

```
create user name user-name passwd password  
[root|user|intermediate] useserial
```

Parameters

Name	Description
<i>name user-name</i>	This specifies the User Name to be created. Type: Mandatory Valid values: String of up to 128 characters ('A'- 'Z', 'a'- 'z', '0'-'9','-',','_') and any combination of printable characters excluding ";"
<i>passwd password</i>	This specifies the password required by this user to login to IAD. Type: Mandatory. Is valid when user does not specify "useserial" parameter Valid values: String of up to 128 characters ('A'- 'Z', 'a'- 'z', '0'-'9','-',','_') and any combination of printable characters excluding ";"
<i>root user intermediate</i>	This indicates the privilege level of the user. Type: Optional Default value: user
<i>Useserial</i>	This specifies that the password required by this user to login to IAD is the "Serial Number" of the modem the user is using. Type: Mandatory - Is valid when user does not specify "passwd" parameter

Mode

Super-User

Example

```
$ create user name user1 passwd temp1 user
```

Output

Verbose Mode On:

```
Entry Created  
User Name : user1  
Privilege : user
```

Verbose Mode Off:

```
Entry Created
```

Output field description

Field	Description
<i>UserName</i>	This shows the new user login which has been created.
<i>Privilege</i>	This represents the privilege level associated with the user name shown. It may be: user, intermediate, root. In CLI, intermediate privilege has the same privileges as the user. In HTTP, the intermediate privilege has ALL the privileges as the "user" except that he can also modify the ATM VPI and VCI values and the PPP username and password.

Caution

User can specify either Passwd or Useserial, not both.

References

- ❖ `delete user` command
- ❖ `get user` command
- ❖ `passwd` related commands.

3.39 delete alg port

Description

Use this command to delete an ALG port entry.

Command Syntax

```
delete alg port portno port-no [prot {any|tcp|udp|num
<prot-number>}]
```

Parameters

Name	Description
<i>portno</i> port-no	The Port number on which the ALG is running. The port here is the destination port of the untranslated packet Type: Mandatory Valid values: 0 – 65535
<i>prot</i> any tcp udp num <prot-number>	This specifies the protocol type for which the ALG is running. Type: Optional. Valid values: any, tcp, udp or 0-255 (Valid IANA specified protocol).

Mode

Super-User.

Example

```
$ delete alg port portno 21 prot tcp
```

Output

Verbose Mode On:

Port Num	Protocol	ALG Type
21	Tcp	FTP

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Port Num</i>	The Port number on which the ALG was running. The port here is the destination port of the untranslated packet.
<i>Protocol</i>	The protocol for which the was running.
<i>Port Type</i>	This specifies the ALG with has to be applied to this port. It may be: FTP, SNMP, REAL AUDIO, REMOTE CMD, L2TP,MIRC,ICQ, CUSEEME,H323_Q931,H323_RAS

Caution

None.

References

- ❖ create alg port command
- ❖ get alg port command
- ❖ get alg type command.

3.40 delete arp

Description

Use this command to delete an entry from the ARP table.

Command Syntax

```
delete arp ip ip-address
```

Parameters

Name	Description
<i>ip ip-address</i>	IP Address corresponding to the media-dependent "physical" address, whose entry is to be deleted. Type: Mandatory Valid values: Any valid class A/B/C IP address

Mode

Super-User

Example

```
$ delete arp ip 192.168.1.1
```

Output

Verbose Mode On:

```
-----  
If Name      Type      Mac Address      Ip Address  
-----  
veth-0      Static    11:11:11:11:11:11  192.168.1.1
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>If Name</i>	This specifies the physical Interface for the media. It may be: eth-0 or veth-0 to veth-4
<i>Type</i>	This defines the type of mapping in use. The value Invalid has the effect that this entry is not used. It may be: Static, Dynamic, Other, Invalid
<i>Mac Address</i>	The media-dependent 'physical' address
<i>Ip Address</i>	IP Address corresponding to the media-dependent 'physical' address

Caution

None.

References

- ❖ `create arp` command
- ❖ `get arp` command
- ❖ `ip stats` related commands
- ❖ `ip route` related commands
- ❖ `ip address` related commands
- ❖ `ip cfg` related commands

3.41 delete atm port

Description

This command is used to delete a virtual atm port.

Command Syntax

```
delete atm port ifname interface-name
```

Parameters

Name	Description
<i>Ifname</i> interface-name	This specifies the ATM port to be deleted Type: Mandatory Valid values: atm-0

Mode

Super-User.

Example

\$ delete atm port ifname atm-0

Output

Verbose Mode On:

```
If-Name           : atm-0           MaxVccs           : 4
CBRPriority        : 5               UBRPriority        : 1
RTVBRPriority      : 4               NRTVBRPriority    : 3
GFRPriority        : 2               Latency           : fast
MaxConfVccs       : 0
OAMSrc            : 0xffffffffffffffffffffffffffff
Oper Status       : Up               Admin Status      : Up
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>If Name</i>	This specifies the name of the ATM port which has been deleted. It can be: atm-0.
<i>MaxVccs</i>	This specifies the maximum number of VCCs (PVCCs and SVCCs) supported at this ATM interface. It may be: 0-64.
<i>CBRPriority</i>	Priority of the CBR Class. A value of 1 means lowest priority and higher the value higher the priority. It may be 1-5.
<i>UBRPriority</i>	Priority of the best effort traffic. A value 0 means no traffic of this class is supported. The higher the value, the higher the priority. It may be: 1-5.
<i>RTVBRPriority</i>	Priority of the RT-VBR service category. The higher the value, the higher the priority. It may be 1-5.
<i>NRTVBRPriority</i>	Priority of the NRTVBR service category. The higher the value, the higher the priority. It may be: 1-5.
<i>GFRPriority</i>	This specifies the priority of GFR class. A value of 0 means no traffic of this class is supported. Higher the value higher the priority. It may be: 1-5.
<i>Latency</i>	Type of DSL channel in use on the underlying DSL port. It may be: fast, interleaved
<i>MaxConfVccs</i>	This specifies the current number of VCCs configured on this port. It may be:0 - Value defined in MaxVccs
<i>OAMSrc</i>	Loop back source id assigned to the ATM port. The ATM port will respond to all loopback cells which carry this OAM id.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down
<i>Admin Status</i>	The desired state of the interface. It may be either Up or

Down

Caution

All VCs created on the ATM port must be deleted before deleting the port itself.

References

- ❖ atm trfdesc commands
- ❖ atm vc related commands
- ❖ oam lpbk command
- ❖ atm port commands
- ❖ atm statistics related commands.

3.42 delete atm svccfg

Description

Use this command to delete a configured SVC.

Command Syntax

delete atm svccfg ifname interface-name

Parameters

Name	Description
Ifname <i>interface-name</i>	Interface name of the SVC to be deleted. Type: Mandatory Valid values: aal5-0, aal5-1...

Mode

Super-User, User.

Example

\$ delete atm svccfg ifname aal5-0

Output

Verbose Mode On

```

VC IfName      : aal5-0                AAL5 Encap      : VC Mux
VPI            : 5                    VCI             : 10
Numbering Plan : atmes
Dest Atm Address : 0x47000580ffde00000000001050000000000000
Trf Descr Index : 1                    Access Protocol  : PPPoA
Aal5 Tx Size   : 200                   Aal5 Rx Size    : 200

```

Entry Deleted

Verbose Mode Off

Entry Deleted

Output field description

Name	Description
<i>VC Ifname</i>	Interface name of the deleted SVC.
<i>AAL5 Encap</i>	The type of Protocol Multiplexing used over 1483
<i>VPI</i>	The VPI of the ATM VC found towards the specified ATM Destination
<i>VCI</i>	The VCI of the ATM VC found towards the specified ATM Destination
<i>Numbering Plan</i>	The Address Plan to which the specified ATM Destination Address (for SVC to be opened) belongs.
<i>Dest Atm Address</i>	The ATM address of the destination with which the connection is established.
<i>Trf Descr Index</i>	The index of the Traffic Descriptor Table entry whose traffic parameters are for the SVC to be opened.
<i>Access Protocol</i>	This specifies the protocol that runs on the VC
<i>Aal5 Tx Size</i>	This specifies the transmit CPCS SDU size.
<i>Aal5 Rx Size</i>	This specifies the receive CPCS SDU size.

Caution

None.

References

command ❖ `create atm svccfg command`

3.43 delete atm trfdesc

Description

Use this command to delete a traffic descriptor.

Command Syntax

```
delete atm trfdesc trfindex traffic-descriptor-index
```

Parameters

Name	Description
<i>trfindex traffic-descriptor-index</i>	This identifies the traffic descriptor entry to be deleted. Type: Mandatory Valid values: 0 - *

Mode

Super-User

Example

```
$ delete atm trfdesc trfindex 2
```

Output

Verbose Mode On:

```
Traffic Descr Id   : 2                Type                : NOCLP_NOSCR
Service Category   : UBR                Frame Discard       : Enabled
PCR                : 0                MCR                 : 0
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Traffic Descr Id</i>	This identifies the traffic descriptor entry which has been deleted.
<i>Type</i>	This defines the type of traffic used. It may be: NOCLP_NOSCR, CLP_NOTAG_MCR, or NOCLP_SCR.
<i>Service Category</i>	This specifies the service category to be used. It may be: UBR, GFR, CBR, RTVBR, NRTVBR.
<i>Frame Discard</i>	It is always Enabled. It indicates that the network is requested to treat data for this connection, in the given direction, as frames (e.g. AAL5 CPCS_PDU's) rather than as individual cells. This treatment may for example involve discarding entire frames during congestion, rather than a few cells from many frames.
<i>PCR</i>	Peak Cell Rate for ATM Traffic
<i>MCR</i>	Minimum Cell Rate for ATM Traffic

Caution

The traffic descriptor should not be in use before deletion.

References

- ❖ `atm trfdesc` commands
- ❖ `atm vc` related commands
- ❖ `atm port` commands
- ❖ `atm statistics` related commands

3.44 delete atm uni**Description**

Use this command to delete UNI configuration.

Command Syntax

```
delete atm uni ifname interface-name
```

Parameters

Name	Description
<i>Ifname</i> interface-name	Interface Index of the ATM VC over which UNI signaling is run. Type: Mandatory Valid values: aal5-0, aal5-1...

Mode

Super-User.

Example

```
$ delete atm uni ifname aal5-0
```

Output

Verbose Mode On

```
IfName          : aal5-0                ATM Numb Plan  : atmes
Status          : Up                    Version       : UNI40
Self ATM Address : 0x39000760ff890000000000011900000000000000
```

Entry Deleted

Verbose Mode Off

Entry Deleted

Output field description

Name	Description
<i>Ifname</i>	Interface name of VC over which UNI signaling is running. It can be: aal5-0, aal5-1...
<i>ATM NumbPlan</i>	The Address Plan to which the specified ATM Source Address belongs.
<i>Status</i>	This specifies the status of the Signaling ATM Adaptation Layer (SAAL) layer. The purpose of SAAL is to provide reliable transfer of signaling message between peer UNI entities.
<i>Version</i>	This specifies the version of the UNI used. UNI31 and UNI40 mean UNI3.1 and UNI4.1 respectively.
<i>SelfAtmAddress</i>	The source ATM address.

Caution

None.

References

- ❖ create atm uni command
- ❖ get atm uni command

3.45 delete atm vc intf

Description

Use this command to delete an existing ATM Virtual Circuit.

Command Syntax

```
delete atm vc intf ifname interface-name
```

Parameters

Name	Description
<i>ifname</i> interface-name	Interface Name of the VC which is to be deleted Type: Mandatory Valid values: aal5-0, aal5-1...

Mode

Super-User

Example

```
$ delete atm vc intf ifname aal5-0
```

Output

Verbose Mode On:

```

LowIf           : atm-0      VPI             : 10             VCI             : 10
VC IfName       : aal5-0     VC Type         : PVC
Admin Status    : Up        Oper Status     : Up
Aal5 Tx Size    : 9200      Aal5 Rx Size   : 9200
AAL Type        : AAL5      AAL5 Encap     : LLC Mux
Max Aal5 Proto  : 3         Trf Descr Index : 2
VC Weight       : 40
Entry Deleted

```

Verbose Mode Off:

```
Entry Deleted
```

Output field description

Field	Description
<i>Lowif</i>	Lower interface index. It is always: atm-0
<i>VPI</i>	It is the Virtual Path Identifier.
<i>VCI</i>	It is the Virtual Circuit Identifier.
<i>VC If-Name</i>	Interface name of the VC which has been deleted. It can be: aal5-0, aal5-1...
<i>VC Type</i>	This field specifies whether VC type is PVC or SVC
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down
<i>Admin Status</i>	The desired state of the interface. It may be either Up, Down or Loopback. Loopback has a special significance. A Loopback VC

	will loop back whatever cells it receives.
Aal5 Tx Size	This specifies the transmit CPCS SDU size to be used
Aal5 Rx Size	This specifies the receive CPCS SDU size to be used
AAL Type	AAL type in use for the VC
AAL5 Encap	This specifies the data multiplexing method to be used over the AAL5 SSCS layer.
Max Aal5 Proto	This specifies the maximum number of protocols that are supported over the VC
Trf Descr Index	This identifies the transmit traffic parameters in use. It corresponds to a valid entry in the traffic descriptor table
VC Weight	This specifies the priority of the VC. Higher value means higher priority

Caution

Do not create anything using the VC you are deleting.

References

- ❖ atm vc intf commands
- ❖ atm trfdesc related commands
- ❖ oam lpbk command
- ❖ atm port commands
- ❖ atm statistics commands

3.46 delete bridge port intf

Description

This command is used to delete an existing bridge port.

Command Syntax

delete bridge port intf ifname *interface-name*

Parameters

Name	Description
<i>ifname</i> <i>interface-name</i>	This specifies the bridge port interface to be deleted. Type: Mandatory Valid values: eoa-0 - *, eth-0, usb-0

Mode

Super-User

Example

\$ delete bridge port intf ifname eth-0

Output

Verbose Mode On:

Port	If-Name	Delay-Exceed-Discards	MTU-Exceed-Discards
1	eth-0	0	0

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Port</i>	The port number of the interface which is being deleted.
<i>If-Name</i>	This specifies the Interface name corresponding to the above port. It can be: eoa-0 - *, eth-0, usb-0
<i>Delay-Exceed-Discards</i>	The number of frames discarded by this port due to excessive transit delay through the bridge
<i>MTU-Exceed-Discards</i>	The number of frames discarded by this port due to the frame size being greater than the MTU of the interface

Caution

None.

References

- ❖ `get bridge port intf` command
- ❖ `create usb intf` command
- ❖ `create bridge port intf` command
- ❖ `bridge mode` related commands
- ❖ `bridge port stats` related commands
- ❖ `bridge static` related commands
- ❖ `bridge forwarding` related commands

3.47 delete bridge static**Description**

Use this command to delete an existing bridge static entry for a given MAC address.

Command Syntax

```
delete bridge static macaddr mac-address inifname
interface- name|all
```

Parameters

Name	Description
<i>macaddr mac-address</i>	The destination MAC address for the bridge static entry which is to be deleted. Type: Mandatory Valid values: 0:0:0:0:0:0 to FF:FF:FF:FF:FF:FF
<i>inifname interface-name</i>	Interface from which a frame must be received in order for this entry's filtering information to apply. A value of all indicates that this entry applies on all interfaces of the bridge for which there is no other applicable entry. Type: Mandatory Valid values: eth-0, eoa-0 - *, usb-0

Mode

Super-User

Example

delete bridge static macaddr 1:1:1:1:1:1 inifname veth-0

Output

Verbose Mode On:

```
MAC Address      : 01:01:01:01:01:01      Incoming Interface : veth-0
Interfaces       : eth-0 eoa-1
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>MAC Address</i>	The destination MAC address for the bridge static entry which is being deleted.
<i>Incoming Interface</i>	Interface from which a frame must be received in order for this entry's filtering information to apply. A value of all indicates that this entry applies on all interfaces of the bridge for which there is no other applicable entry.
<i>Interfaces</i>	The interfaces to which frames destined for a specific MAC address are allowed to be forwarded. They may be: eoa-0 - *, eth-0

Caution

None.

References

- ❖ create bridge static command
- ❖ get bridge static command
- ❖ modify bridge static command
- ❖ bridge mode related commands

- ❖ bridge static related commands
- ❖ bridge forwarding related commands
- ❖ bridge port stats related commands

3.48 delete dhcp relay intf

Description

Use this command to disable DHCP relaying on the specified interface.

Command Syntax

```
delete dhcp relay intf ifname interface-name
```

Parameters

Name	Description
<i>Ifname</i> interface-name	This specifies the Interface for which DHCP Relaying is to be disabled Type: Mandatory Valid values: eth-0, ppp-0, ppp-1, ipoa -0-*, usb-0

Mode

Super-User

Example

```
$ delete dhcp relay intf ifname eth-0
```

Output

Verbose Mode On:

```
If-name  
-----  
eth-0
```

```
Entry Deleted
```

Verbose Mode Off:

```
Entry Deleted
```

Output field description

Field	Description
<i>If-Name</i>	This specifies an interface which is enabled for DHCP Relay. It can be: eth-0, ppp-0, ppp-1...

Caution

None.

References

- ❖ `get dhcp relay intf` command
- ❖ `create dhcp relay intf` command
- ❖ `dhcp relay cfg` related commands
- ❖ `dhcp relay stats` related commands

3.49 delete dhcp server exclude

Description

Use this command to delete an entry in the address exclusion table. The entry thus deleted, is now available for allocation to a client.

Command Syntax

`delete dhcp server exclude ip ip-address`

Parameters

Name	Description
<i>ip ip-address</i>	The IP address that has to be deleted from the exclusion list. The IP Address must belong to a pool. Type: Mandatory Valid values: Any valid class A/B/C IP address

Mode

Super-User

Example

`$ delete dhcp server exclude ip 192.168.1.5`

Output

Verbose Mode On:

```
Ip Address
-----
192.168.1.5
```

```
Entry Deleted
```

Verbose Mode Off:

```
Entry Deleted
```

Output field description

Field	Description
<i>Ip Address</i>	This is the IP Address that has been excluded.

Caution

None.

References

- ❖ get dhcp server exclude command
- ❖ create dhcp server exclude command
- ❖ dhcp server pool related commands

3.50 delete dhcp server host

Description

Use this command to delete the specified static DHCP host entry.

Command Syntax

delete dhcp server host ip ip-address

Parameters

Name	Description
<i>ip ip-address</i>	This specifies the IP address of the host the entry pertaining to which is to be deleted. Type: Mandatory Valid values: Any valid class A/B/C IP address

Mode

Super-User

Example

\$ delete dhcp server host ip 192.168.1.7

Output

Verbose Mode On:

```
Host Ip           : 192.168.1.7           Hardware Addr    : 12:34:45:56:03:02
Def Lease(sec)   : 2592000                Max Lease(sec)   : 31536000
Domain Name      :
Subnet Mask      : 255.255.255.0
Gateway Ip       : 0.0.0.0                Sntp Ip         : 0.0.0.0
Dns Ip           : 0.0.0.0                Sec. Dns Ip     : 0.0.0.0
Pop3 Ip          : 0.0.0.0                Nntp Ip         : 0.0.0.0
Www Ip           : 0.0.0.0                Irc Ip          : 0.0.0.0
Wins Ip          : 0.0.0.0                Sec. Wins Ip    : 0.0.0.0
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Host Ip</i>	This specifies the IP address provided to this host
<i>Hardware Addr</i>	This specifies the hardware address of the client
<i>Def Lease</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
<i>Max Lease</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.
<i>Domain Name</i>	Specifies the domain name configured for this host
<i>Subnet Mask</i>	This specifies the subnet mask to be provided to the host
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>Sntp Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec. Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server
<i>Www Ip</i>	This specifies the IP address of the WWW Server
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec. Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

None.

References

- ❖ `get dhcp server host` command
- ❖ `create dhcp server host` command
- ❖ `modify dhcp server host` command
- ❖ `dhcp server` related commands.

3.51 delete dhcp server pool

Description

Use this command to delete an existing DHCP server pool.

Command Syntax

```
delete dhcp server pool pool-id pool-id
```

Parameters

Name	Description
pool-id pool-id	This identifies the pool for which is to be deleted. Type: Mandatory Valid values: 0 - 255

Mode

Super-User

Example

\$ delete dhcp server pool-id poolid 0

Output

Verbose Mode On:

```
Pool Id       : 0                Status       : Disable
Start Ip     : 192.168.1.1      End Ip       : 192.168.1.200
Def Lease(sec) : 2592000        Max Lease(sec) : 31536000
Range Inuse  : 0                Outstd Offers : 0
Low Thres   : 0                Subnet Mask  : 255.255.255.0
Domain Name  :
Gateway Ip   : 0.0.0.0         Sntp Ip     : 0.0.0.0
Dns Ip      : 0.0.0.0         Sec. Dns Ip : 0.0.0.0
Pop3 Ip     : 0.0.0.0         Nntp Ip    : 0.0.0.0
Www Ip     : 0.0.0.0         Irc Ip     : 0.0.0.0
Wins Ip    : 0.0.0.0         Sec. Wins Ip : 0.0.0.0
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Pool Id</i>	This is the pool identifier.
<i>Status</i>	This defines the Admin status of the entry. It may be either Enable or Disable
<i>Start Ip</i>	The IP address of the first address in the range.
<i>End Ip</i>	The IP address of the last address in the range
<i>Def Lease</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
<i>Max Lease</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.
<i>Range Inuse</i>	The number of addresses in this range that are currently in use. This number includes those addresses whose lease has not expired and addresses which have been reserved
<i>Outstd Offers</i>	The number of outstanding DHCP OFFER messages for this range is reported with this value. An offer is outstanding if the server has sent a DHCP OFFER message to a client, but has not yet received a DHCP REQUEST message from the client nor has the server-specific timeout, within which a client can respond to the offer message, for the offer message expired
<i>Low Thres</i>	This specifies the lowest threshold value on the number of available/free IP addresses for a particular shared network
<i>Subnet Mask</i>	The subnet mask provided to any client offered an address from this range
<i>Domain Name</i>	Domain name used per subnet.
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>Sntp Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec. Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server

<i>Www Ip</i>	This specifies the IP address of the WWW Server
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec. Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

None.

References

- ❖ `create dhcp server pool` command
- ❖ `create dhcp server pool` command
- ❖ `get dhcp server pool` command
- ❖ `dhcp server cfg` related commands
- ❖ `dhcp server exclude` related commands
- ❖ `dhcp server address` related commands

3.52 delete dns servaddr

Description

Use this command to delete DNS server addresses.

Command Syntax

`delete dns servaddr <ip-address>`

Parameters :

Name	Description
<code><ip-address></code>	This parameter specifies the IP address for configuring the DNS server address. Type: Mandatory Valid values: Valid IP address.

Mode

Super-User.

Example

`$ delete dns servaddr 182.25.2.1`

Output

Verbose mode on:

DNS Server IP Address

182.25.2.1

Entry Deleted

Verbose mode off:

Entry Deleted

Output Field description:

Field	Description
<i>DNS Server IP Address</i>	This specifies the IP address of the DNS server.

Caution

None

References:

- ❖
- ❖
- ❖
- ❖
- ❖
- ❖

3.53 delete eoa intf

Description

Use this command to delete an eoa interface.

Command Syntax

delete eoa intf ifname *interface-name*

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the eoa interface which has to be deleted. Type: Mandatory. Valid values: eoa-0 - *

Mode

Super-User

Example

```
$ delete eoa intf ifname eoa-0
```

Output

Verbose Mode On:

```
IfName           : eoa-0           Interface Sec Type : Public
Configured IP Address: 0.0.0.0       Mask               : 0.0.0.0
Low IfName       : aal5-0           NAT Direction      : OUT
Gateway          : 0.0.0.0           DRoute             : False
Oper Status      : Down             Admin Status       : Up
UseDHCP          : False
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>IfName</i>	The name of the interface which has been created.
<i>Configured IpAddress</i>	IP address assigned to the eoa interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>LowIfName</i>	Specifies the lower interface.
<i>Nat Direction</i>	This specifies the NAT direction which may be: inside, outside or none.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down
<i>Admin Status</i>	The desired state of the interface. It may be either Up or Down
<i>UseDhcp</i>	Whether or not a DHCP client is used to obtain the IP address for this interface from a DHCP server
<i>Interface Sec Type</i>	Interface Security Type.
<i>Droute</i>	Default route
<i>Gateway address</i>	Gateway IP address

Caution

No bridge port can be created on the eoa interface.

References

- ❖ create eoa intf command
- ❖ get eoa intf command
- ❖ modify eoa intf command
- ❖ eoa stats related commands
- ❖ interface stats related commands
- ❖ atm vc intf related commands

3.54 delete ethernet intf

Description

Use this command to delete a virtual ethernet interface

Command Syntax

```
delete ethernet intf ifname interface-name
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface to be deleted. Type: Mandatory Valid values: veth-0 - *

Mode

Super-User

Example

```
$ delete ethernet intf ifname eth-0
```

Output

Verbose Mode Off:

Entry Deleted

```
Interface          : veth-0
Interface Sec Type : Public          Configured IP Address  :
192.168.1.1
Mask               : 255.255.255.0    UseDhcp                : False
Physical Interface : eth-0          Nat Direction          : None
Configured Duplex  : auto            Configured Speed       : auto
Duplex             : half            Speed                  : 10BT
Operational Status : Up              Admin Status           : Up
```

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Interface</i>	The name of the interface which has been created.
<i>Interface Sec Type</i>	Interface security type.
<i>Configured Ip Address</i>	IP address assigned to the Ethernet port.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>UseDhcp</i>	Local: IP address for this interface is obtained from a local DHCP server Remote: DHCP client is used to obtain the IP address for this interface from a remote DHCP server

	False: DHCP client is not used.
<i>Physical Interface</i>	Valid only in case of virtual interfaces i.e. the Type is not eth. It can only be eth-0
<i>Nat Direction</i>	This specifies the NAT direction which may be: inside, outside or none.
<i>Configured Duplex</i>	The duplex mode to be used by the interface as configured by the user
<i>Configured Speed</i>	Line speed to be used by Ethernet interface as configured by the user
<i>Duplex</i>	The duplex mode used by the interface.
<i>Speed</i>	Line speed used by Ethernet interface
<i>Operational Status</i>	The actual/current state of the interface. It can be either up or down
<i>Admin Status</i>	The desired state of the interface. It may be either up or down

Caution

None.

References

- ❖ `get ethernet intf command`
- ❖ `create ethernet intf command`
- ❖ `modify ethernet intf command`
- ❖ `ethernet stats related commands`
- ❖ `interface stats related commands`

3.55 delete fwl blacklist

Description

Use this command to delete a blacklisted host.

Command Syntax

```
delete fwl blacklist ip ddd.ddd.ddd.ddd
```

Parameters

Name	Description
ip <ddd.ddd.ddd.ddd>	This specifies the IP address of the blacklisted host that is to be deleted. Type: Mandatory Valid values : 0.0.0.0 - 255.255.255.255

Mode

Super-User

Example

\$ delete fwI blacklist ip 172.25.7.8

Output

Verbose Mode On:

IP Address	Blacklist Reason	RuleId	Time Left(sec)
172.25.7.8	Ping of Death	1	20

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>IP Address</i>	This specifies the IP address of the blacklisted host
<i>Blacklist Reason</i>	This specifies the reason for blacklisting the host.
<i>RuleId</i>	This specifies the firewall rule id which caused the blacklisting.
<i>Time Left(sec)</i>	This specifies time duration in seconds after which the IP address entry will be removed from this table.

Caution

None.

References

❖ `get fwI blacklist command`

3.56 delete igmp intf

Description

Use this command to delete an IGMP interface over a given interface.

Command Syntax

`delete igmp intf ifname interface-name`

Parameters

Name	Description
<i>ifname interface-name</i>	This identifies the interface on which IGMP has to be deleted. Type: Mandatory Valid values: eth-0, veth-0 - *, ppp-0 - *, eoa-0 - *, usb- 0, ipoa -0- Default value: none.

Mode

Super-User.

Example

\$ delete igmp intf ifname veth-0

Output

Verbose Mode Off

```
IfName           : eth-0      Type           : Host
Version          : igmpv1    Query Interval(sec) : 150
Query Max Resp Time(sec) : 10   Last Memb QueryIntvl(sec) : 2
Robustness       : 10        Join Requests    : 10
Current Groups   : 8
```

Entry Deleted

Verbose Mode Off

Entry Deleted

Output field description

Field	Description
<i>Query Interval(sec)</i>	This is the periodic interval at which host-query messages (queries) are transmitted on this interface
<i>Version</i>	This field specifies the version of IGMP.
<i>Query Max ResponseTime(sec)</i>	This field specifies the query max response time (in secs)
<i>Last Memb QueryIntvl(sec)</i>	This field specifies the Last Member Query Interval (in secs)
<i>Join Requests</i>	This is the number of times a group membership has been added to this interface
<i>Current Groups</i>	This is the current number of entries for this interface in the IGMP Group Table.

Caution

None.

References

- ❖ get igmp intf command
- ❖ create igmp intf command
- ❖ get igmp groups command

3.57 delete ilmi intf

Description

Use this command to delete an ILMI interface.

Command Syntax

```
delete ilmi intf ifname interface-name
```

Parameters

Name	Description
ifname interface-name	Its value is same as ifIndex for the ATM type of interface in the ifTable. Type: Mandatory. Valid Values : atm-0, atm-1, etc.

Mode

Super-user.

Example

```
$ delete ilmi intf ifname atm-0
```

Output

Verbose Mode On

```
Interface Name      : atm-0          Status           : Disable
VPI                 : 12              VCI              : 50
Timeout(sec)       : 1              Keep Alive Time(sec) : 3
Maximum Retries    : 11             Version          : 4.0
```

Entry Deleted

Verbose Mode Off

Entry Deleted

Output field description

Field	Description
<i>Interface Name</i>	The name of the interface which has been created.
<i>Status</i>	Whether ilmi is enabled or not on this interface.
<i>VPI</i>	VPI to be used for ILMI message exchanges between peer ILMIs
<i>VCI</i>	VCI to be used for ILMI message exchanges between peer ILMIs.
<i>Timeout</i>	Timeout value in seconds, for SNMP Get/ Set messages exchanged between peer ILMIs.
<i>Keep Alive Time</i>	The time-interval in seconds, ILMI should use to poll for peer ILMI's availability.
<i>Maximum Retries</i>	Number of times ILMI should retry.
<i>Version</i>	The version of ILMI

Caution

None

References

- ❖ create ilmi intf command
- ❖ get ilmi intf command
- ❖ modify ilmi intf command
- ❖ modify ilmi trigger command

3.58 delete ip route

Description

Use this command to delete an existing routing table entry.

Command Syntax

```
delete ip route ip dest-ip-address mask net-mask
```

Parameters

Name	Description
<i>ip dest-ip-address</i>	Destination IP address of the route which is to be deleted. Type: Mandatory Valid values: Any valid class A/B/C IP address
<i>mask net-mask</i>	The Mask of the destination IP Address. Type: Mandatory Valid values: 128.0.0.0 – 255.255.255.254

Mode

Super-User

Example

```
$ delete ip route ip 192.168.2.40 mask 255.255.255.0
```

Output

Verbose Mode On:

```
Destination  Net Mask      Gateway      If-name      Route  Route  Age(sec)
              Type          Orig
-----
192.168.2.40  255.255.255.0  192.168.1.1  veth-0      IND    LCL    0
Entry Deleted
```

Verbose Mode Off:

```
Entry Deleted
```

Output field description

Field	Description
<i>Destination</i>	Destination IP address of this route

Mask	The Mask of the destination IP Address
Gateway	The IP address of the next hop for this route
If-Name	The local interface through which the next hop of this route will be reached
Route Type	The type of route. It may be: Dir (for Direct), Ind (for Indirect), or inv (for invalid route)
Route Orig	The routing mechanism through which this route was learned. It may be: NET (for Network Management), LCL (for Local), RIP, ICMP,DYI (Dynamic through Interface creation)
Age	The number of seconds since this route was last updated or otherwise determined to be correct

Caution

None.

References

- ❖ get ip route command
- ❖ create ip route command
- ❖ ip stats related commands
- ❖ ip cfg related commands
- ❖ ip address related commands
- ❖ arp related commands

3.59 delete ipf rule entry

Description

This command is used for deleting an IP filter rule.

Command Syntax

delete ipf rule entry ruleid rule-id

Parameters

Name	Description
	The index given by the caller to identify the rule entry. Type: Mandatory Valid values: 1-4294967295

--	--

Mode

Super-User.

Example

\$ delete ipf rule entry ruleid 1

Output

Verbose Mode On

```

Rule id          : 1      Interface          : eth-0
Rule Admin status : Disable Rule Oper Status  : Disable
In interface     : ALL   Direction       : Out
Security Level   : High   Blacklist Status : Enable
Logging          : Disable Action            : Accept
Log Tag          : -
IP Frag Pkt      : Yes    IP Opt Pkt       : No
TCP Flag         : Syn    Store State      : Enable
Src Addr         : Equal  172.25.8.76
Dest Addr        : Range  172.25.8.70      172.25.8.90
Src Port         : Out Of Range 10          20
Dest Port        : Not Equal 3
ICMP Code        : Not Equal 10
ICMP Type        : Equal   unreachable
TransProt        : Equal   TCP
IP Pkt Size      : Less Than 10
TOD Rule         : Enable Between 01:02:30      02:01:30

```

Entry Deleted

Verbose Mode Off

Entry Deleted

Output field description

Field	Description
<i>Rule id</i>	The index given by the caller to identify the rule entry.
<i>Rule Admin Status</i>	Specifies the administrative status of the rule entry.
<i>Interface</i>	Specifies the IP-enabled physical interface to be associated to this rule. All indicates that rule is to be associated to all interfaces.
<i>In Interface</i>	Specifies the input interface ID which may be used to dictate the rules like deny/accept all traffic from a specific interface. So, this field can be specified only if direction is out.
<i>Direction</i>	Specifies the direction of Data flow on which filtering is to be applied.
<i>Action</i>	Specifies the action to be taken when a packet matches a rule.

Logging	This flag controls the logging of matched packets. Each log will contain IP Header and TCP/UDP header or ICMP fields, if available.
Log Tag	This specifies the Filter logging tag, which will be added to all the logs generated due to the rule
Src Addr	This field specifies the matching criteria for source IP Address along with the source IPAddress value and the destination IPAddress value. The source or destination or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
Dest Addr	This field specifies the matching criteria for destination IP Address along with the start destination IPAddress value and end destination IPAddress value. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
Src Port	This field specifies the matching criteria for source port along with the start of src port and the end of src port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcst.
Dest Port	This field specifies the matching criteria for destination Port along with the start dest port and the end dest port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcst.
ICMP Code	This field specifies the matching criteria for ICMP code value along with the code field in ICMP header in case of ICMP packets.
ICMP Type	This field specifies the matching criteria for ICMP Type along with the type field in ICMP header in case of ICMP packets.
TransProt	This field specifies the matching criteria for transport protocol field along with the transport layer protocol number as per IANA.
TCP Flag	This specifies filtering criteria for TCP packet types.
Store State	This specifies whether stateful filtering is done or not
Security Level	This specifies the association of rule with system wide service protection level.
Blacklist Status	This specifies whether source of the packet should be put in blacklist if it matches with the rule. It will be applicable to deny kind of rules
IP Frag Pkt	This specifies whether the rule is applicable to fragmented packets, non fragmented packets or in both cases.
IP Opt Pkt	This specifies whether the rule is applicable to IP packet with or without IP options or in both cases.
IP Pkt Size	This field specifies the matching criteria for IP Pkt Size along with IP packet filtering attribute . It should be compared against the packet size value in IP header.
ToD Rule	This field specifies whether the rule should be applied for the duration specified."Enable Between" indicates that the rule is applied between the specified time duration."Disable Between" indicates that rule is not applicable between the specified duration, but it is applicable for remaining time of the day.
Rule Oper Status	A rule will be operationally enabled if and only if it is administratively enabled, its Time of Day status as per current time is Enable, and if the rule's security level matches the global security level as shown by get ipf global.

Caution

None.

References

- ❖ create ip rule entry command
- ❖ get ip rule entry command
- ❖ modify ip rule entry command

3.60 delete ipf session

Description

Use this command to delete IP Filter session information.

Command Syntax

delete ipf session sessid decvalue

Parameters

Name	Description
sessid decvalue	This is index of a session, which needs to be deleted. Type: Mandatory Valid values : 1-4294967295

Mode

Super-User.

Example

\$ delete ipf session sessid 1

Output

Verbose Mode On

```
Session Index          : 1
Time To Expire (sec)   : 200          Protocol           : TCP
IfName-1               : eth-0        IfName-2           : ppp-0
IP Address-1           : 172.25.8.9    IP Address-2       :
202.1.1.10
Port-1                 : 1245          Port-2             : 23
IN RuleID on IfName-1 : 10          IN RuleID on IfName-2 : 20
IN Action on IfName-1 : accept       IN Action on IfName-2 : accept
OUT RuleID on IfName-1 : 30          OUT RuleID on IfName-2 : 40
OUT Action on IfName-1 : accept       OUT Action on IfName-2 : accept
```

Entry Deleted

Verbose Mode Off

Entry Deleted

Output field description

Field	Description
<i>Session Index</i>	This is index for display of session information This specifies the action defined in OUT RuleID on IfName-2.
<i>Time To Expire (sec)</i>	Time remaining before the session is deleted.
<i>Protocol</i>	This field specifies the protocol type for which session is created.
<i>IfName-1</i>	This specifies the first physical interface associated with this session. This is the interface due to which session creation is initiated.
<i>IfName-2</i>	This specifies the second physical interface associated with this session. This interface is the one on which packet is routed.
<i>IP Address-1</i>	This specifies the IP address associated with ifName-1. If the packet originates from ifName-1, then this will be the source IP address and if the packet is arriving at ifName- 1, then this will be the destination address.
<i>IP Address-2</i>	This specifies the IP address associated with ifName-2. If the packet originates from ifName-2, then this will be the source IP address and if the packet is arriving at ifName- 2, then this will be the destination address.
<i>Port-1</i>	This specifies port associated with IP Address-1. If the packet originates from ifName-1, then this will be the source port and if the packet is arriving at ifName-1, then this will be the destination port.
<i>Port-2</i>	This specifies port associated with IP Address-2. If the packet originates from ifName-2, then this will be the source port and if the packet is arriving at ifName-2, then this will be the destination port.
<i>IN RuleID on IfName-1</i>	This specifies the matching rule id (i.e. the first rule that matches the packet selectors) on IfName-1 for incoming direction.
<i>IN RuleID on IfName-2</i>	This specifies the matching rule id on interface IfName-2 for incoming direction.
<i>IN Action on IfName-1</i>	This specifies the action defined in IN RuleID on IfName- 1.
<i>IN Action on IfName-2</i>	This specifies the action defined in IN RuleID on IfName-2.
<i>OUT RuleID on IfName-1</i>	This specifies the matching rule id on interface IfName-1 for outgoing direction.
<i>OUT RuleID on IfName-2</i>	This specifies the matching rule id on interface IfName-2 for outgoing direction.
<i>OUT Action on IfName-1</i>	This specifies the action defined in OUT RuleID on IfName-1.
<i>OUT Action on IfName-</i>	This specifies the action defined in OUT RuleID on IfName-

2	2.
---	----

Caution

None.

References

- ❖ `get ipf session command`
- ❖ `reset ipf session command`

3.61 delete ipf session

Description

Use this command to delete an IP Filter session information.

Command Syntax

*delete ipf session sessid **decvalue***

Parameters :

Name	Description
<i>sessid decvalue</i>	This is index of a session, which needs to be deleted. Type: Mandatory Valid values : 1-4294967295

Mode

Super-User.

Example

`$ delete ipf session sessid 1`

Output

Verbose mode on:

```
Session Index          : 1
Time To Expire (sec)   : 200   Protocol   : TCP
IfName-1               : eth-0   IfName-2   : ppp-0
IP Address-1           : 172.25.8.9      IP Address-2       : 202.1.1.10
Port-1                 : 1245    Port-2     : 23
IN RuleID on IfName-1 : 10     IN RuleID on IfName-2 : 20
IN Action on IfName-1 : accept  IN Action on IfName-2 : accept
OUT RuleID on IfName-1 : 30     OUT RuleID on IfName-2 : 40
OUT Action on IfName-1 : accept  OUT Action on IfName-2 : accept
```

Entry Deleted

Verbose mode off:

Entry Deleted

Output Field description:

Field	Description
<i>Session Index</i>	This is index for display of session information
<i>Time To Expire (sec)</i>	Time remaining before the session is deleted.
<i>Protocol</i>	This field specifies the protocol type for which session is created.
<i>IfName-1</i>	This specifies the first physical interface associated with this session. This is the interface due to which session creation is initiated.
<i>IfName-2</i>	This specifies the second physical interface associated with this session. This interface is the one on which packet is routed.
<i>IP Address-1</i>	This specifies the IP address associated with ifName-1. If the packet originates from ifName-1, then this will be the source IP address and if the packet is arriving at ifName-1, then this will be the destination address.
<i>IP Address-2</i>	This specifies the IP address associated with ifName-2. If the packet originates from ifName-2, then this will be the source IP address and if the packet is arriving at ifName-2, then this will be the destination address.
<i>Port-1</i>	This specifies port associated with IP Address-1. If the packet originates from ifName-1, then this will be the source port and if the packet is arriving at ifName-1, then this will be the destination port.
<i>Port-2</i>	This specifies port associated with IP Address-2. If the packet originates from ifName-2, then this will be the source port and if the packet is arriving at ifName-2, then this will be the destination port.
<i>IN RuleID on IfName-1</i>	This specifies the matching rule id (i.e. the first rule that matches the packet selectors) on IfName-1 for incoming direction.
<i>IN RuleID on IfName-2</i>	This specifies the matching rule id on interface IfName-2 for incoming direction.
<i>IN Action on IfName-1</i>	This specifies the action defined in IN RuleID on IfName-1.
<i>IN Action on IfName-2</i>	This specifies the action defined in IN RuleID on IfName-2.
<i>OUT RuleID on IfName-1</i>	This specifies the matching rule id on interface IfName-1 for outgoing direction.
<i>OUT RuleID on IfName-2</i>	This specifies the matching rule id on interface IfName-2 for outgoing direction.
<i>OUT Action on IfName-1</i>	This specifies the action defined in OUT RuleID on IfName-1.
<i>OUT Action on IfName-2</i>	This specifies the action defined in OUT RuleID on IfName-2.

Caution

None

References:

- ❖
- ❖
- ❖
- ❖

3.62 delete ipoa intf

Description

This command is used for deleting an IPoA interface.

Command Syntax

delete ipoa intf ifname *interface-name*

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the IPoA interface, which has to be deleted. Type: Mandatory. Valid values: ipoa-0, ipoa-1, etc.

Mode

Super-User.

Example

\$ delete ipoa intf ifname ipoa-0

Output

Verbose Mode On

```
IfName           : ipoa-0           UseDHCP           : True
Type             : non1577          Interface Sec Type: Public
Configured IP Address: 0.0.0.0      Mask              : 0.0.0.0
DRoute           : False            Gateway            : 0.0.0.0
NAT Direction    : OUT              Oper Status       : Down
```

Entry Deleted

Verbose Mode Off

Entry Deleted

Output field description

Field	Description
<i>If-Name</i>	The name of the IPoA interface which has been created.
<i>UseDHCP</i>	This specifies whether a DHCP client is used to obtain the IP address for this interface from a DHCP server, or not.
<i>Type</i>	This specifies the type of IPoA interface.
<i>Interface Sec Type</i>	Interface security type
<i>Configured IP Address</i>	IP address assigned to the IPoA interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>Droute</i>	Default Route
<i>Gateway</i>	Gateway IP Address.
<i>Nat Direction</i>	This specifies the NAT direction, which may be: inside, outside or none.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down

Caution

None.

References

- ❖ `create ipoa intf` command
- ❖ `get ipoa intf` command
- ❖ `create ipoa map` command

3.63 delete ipoa map**Description**

Use this command to delete an IPoA interface association with AAL5 interface.

Command Syntax

```
delete ipoa map ifname interface-name lowif low-
interface- name
```

Parameters

Name	Description
<i>ifname</i> <i>interface-name</i>	The name of the IPoA interface for which the association with lower interface has to be deleted. Type: Mandatory Valid values: ipoa-0, ipoa-1 etc.,.

<i>lowif low-interface-name</i>	This parameter specifies the lower interface (ATM VC interface) of the IPoA interface. Type: Mandatory Valid Values: aal5-0, aal5-1 etc.,.
--	--

Mode

Super-User.

Example

\$ delete ipoa map ifname *ipoa-0* lowif *aal5-0*

Output

Verbose mode on:

```
IfName      LowIfName      Peer IP Address
-----
ipoa-0      aal5-0         172.25.1.130
```

Entry Deleted

Verbose mode off:

Entry Deleted

Output Field description

Field	Description
<i>IfName</i>	The name of the IPoA interface for which the association with the lower interface has been deleted.
<i>LowIfName</i>	Specifies the lower (ATM VC) interface.
<i>Peer IP Address</i>	IP address of peer.

Caution

None

References

- ❖
- ❖
- ❖
- ❖
- ❖



3.64 delete l2tp tunnel config ifname l2t-0

Description

Use this command to delete an L2TP tunnel.

Command Syntax

```
delete l2tp tunnel config ifname interface-name
```

Parameters

Name	Description
<i>ifname interface-name</i>	Identifies the interface name for L2TP layer. Type: Mandatory Valid values: l2t-0-l2t-*..

Output

Verbose mode on:

```
If Name           : l2t-0
Admin Status      : Up           Oper Status       : Up
Local IP-address  : 178.10.10.10 Remote IP-address  : 178.10.11.10
Hello Interval    : 300          Idle Timeout      : 100
Max Retx Attempt  : 10           Max Retx Timeout  : 10
Initiator         : local        Payload Sequencing : always
Authentication Type : simple     Transport         : udpip
Control RWS       : 5
Shared Secret     : passwd
Local Host name   : titanium
Remote Host name  : Columbia
```

Entry Deleted

Verbose mode off:

Entry Deleted

Output Field description:

Field	Description
<i>If-name</i>	Identifies the interface name for L2TP layer.
<i>Local IP-address</i>	This field specifies the address of the local endpoint of the tunnel
<i>Local Host name</i>	This field specifies the address of the local endpoint of the tunnel
<i>Remote IP-address</i>	This field specifies the address of the remote endpoint of the tunnel to which the tunnel is to be estab-

	lished.
<i>Admin Status</i>	This field specifies the adminstatus of the of the l2tp interface.
<i>Oper Status</i>	This field specifies the Operstatus of the of the l2tp interface.
<i>Remote Host name</i>	This field specifies the hostname of the remote end-point of the tunnel to which the tunnel is to be established.
<i>Hello Interval</i>	Defines the interval (in sec) in which Hello packets are to be sent to the tunnel peer
<i>Idle Timeout</i>	Defines the period of time (in seconds) that an established tunnel with no sessions will wait before disconnecting the tunnel.
<i>Control RWS</i>	Defines the control channel receive window size
<i>Max Retx Timeout</i>	Defines the maximum retransmission timeout interval that the tunnel will wait before retransmitting a control packet that has not been acknowledged.
<i>Initiator</i>	This indicates whether the tunnel will be initiated locally or not.
<i>Payload Sequencing</i>	This object determines whether or not session payload packets will be requested to be sent with sequence numbers from tunnel peer's. The value never(2) indicates that L2TP will never initiate sequencing but will do sequencing if asked. The value always(3) indicates that L2TP will send the sequencing Required AVP during session establishment
<i>Authentication Type</i>	Describes how L2TP tunnel peers are to be authenticated
<i>Transport</i>	Defines the underlying transport media that is in use for this tunnel entry.
<i>Shared Secret</i>	Shared secret is used during the tunnel authentication phase of tunnel establishment if authtype is challenge
<i>Max Retx Attempt</i>	Defines the number of retransmissions, which the tunnel will attempt before assuming that the peer is no longer responding.

Caution

This command will fail if sessions are present on tunnel.

References



3.65 delete nat rule entry

Description

Use this command to delete an existing NAT rule table entry.

Command Syntax

delete nat rule entry ruleid rule-id

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the NAT rule which is to be deleted. Type: Mandatory Valid values: 1-4294967295

Mode

Super-User

Example

\$ delete nat rule entry ruleid 1

Output

Verbose Mode On:

```

Rule Id           : 1                Flavor           : NAPT
Interface         : ALL              Protocol         : ANY
Local Addr From   : 0.0.0.0          Local Addr To    : 0.0.0.0
Dest Addr From    : 0.0.0.0          Dest Addr to     : 0.0.0.0
Global Addr From  : 0.0.0.0          Global Addr To   : 255.255.255.255
Dest Port From    : 0                Dest Port To     : 0
Local Port        : 0
    
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Rule Id</i>	This identifies the NAT rule, information pertaining to which is being displayed.
<i>Flavor</i>	This specifies the type of rule. It may be: BASIC, FILTER, NAPT, BIMAP,REDIRECTION (for RDR) and PASS.
<i>Interface</i>	This specifies the Interface or the outgoing device on which this Nat Rule would apply. It may be: eth-0, veth-0 - *, eoa-0 - *, ppp-0, ppp-1...
<i>Protocol</i>	This specifies the protocol type for which the rule is meant. It may be: Any, TCP, UDP, ICMP or IANA specified protocol between 0 to 255.
<i>Local Addr From</i>	This is the starting address when a range of private IP addresses are mapped
<i>Local Addr To</i>	This is the last IP address of the range of private IP addresses mapped by this rule.
<i>Dest Addr From</i>	This specifies the start of the range of destination IP address of the packet to be matched.
<i>Dest Addr To</i>	This specifies the end of the range of destination IP address to be matched
<i>Dest Port From</i>	This specifies the start of the range of the destination port number to be matched.
<i>Dest Port To</i>	This specifies the end of the range of destination port numbers to be matched.
<i>Global Addr From</i>	Specifies the first globally unique IP address of the range of IP addresses being mapped.
<i>Global Addr To</i>	Specifies the last globally unique IP address of the range of IP addresses used in the mapping.
<i>Local Port</i>	This is the translated port number to be used .

Caution

None.

References

- ❖ create nat rule entry command
- ❖ get nat rule entry command
- ❖ nat global info related commands
- ❖ nat rule statistics related commands
- ❖ nat rule status related commands.

3.66 delete pfrac rule entry

Description

Use this command to delete a rule.

Command Syntax

delete pfrac rule entry ruleid rule-id

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the rule index of the rule which has to be deleted. Type: Mandatory Valid values: 0 - 65535 Only existing rule ids accepted as input.

Mode

Super-User

Example

\$ delete pfrac rule entry ruleid 2

Output

Verbose Mode On:

```
Rule id      : 2                Rule status   : Enable
Interface    : eth-0           In interface  : All
Direction    : Out            Action        : Accept
Logging      : Disable
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Rule id</i>	This identifies the rule index of the rule.
<i>Rule Status</i>	This specifies whether this rule is enabled or disabled.
<i>Interface</i>	This specifies the interface name for a rule.
<i>In Interface</i>	This specifies the incoming interface for the given outgoing interface.
<i>Direction</i>	This specifies the filtering direction to which this rule is applied.
<i>Action</i>	This specifies the action taken when a packet matches this rule
<i>Logging</i>	This specifies the log option of this rule

Caution

pfraw rule cannot be deleted until all the subrule entries created on this rule are deleted.

References

❖ `delete pfraw subrule command`

3.67 delete pfraw subrule entry

Description

Use this command to delete a specific sub-rule of an already existing rule.

Command Syntax

```
delete pfraw subrule entry ruleid rule-id subruleid sub-
rule- id
```

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the rule index of the rule for which the sub-rule has to be deleted. Type: Mandatory Valid values: 0 - 65535 Only existing rule ids accepted as input.
<i>subruleid sub-rule-id</i>	This specifies the sub-rule index of the sub-rule which has to be deleted. Type: Mandatory Valid values: 0 - 254

Mode

Super-User

Example

```
$ delete pfraw subrule entry ruleid 2 subruleid 1
```

Output

Verbose Mode On:

```
Sub Rule id      : 1                Rule id      : 2
Sub Rule status  : Enable           Offset from  : Linkh
Offset          : 6
Comp operation   : Range
Low value       : 0x00000000ff000000
High value      : 0x00000000ffcd0000
Mask           : 0x00000000ffff0000
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Name	Description
<i>Sub Rule id</i>	This identifies the sub-rule index of the sub-rule.
<i>Rule id</i>	This specifies the rule index of the rule of which this is the subrule
<i>Sub Rule status</i>	This specifies whether this subrule is enabled or disabled.
<i>Offset from</i>	This specifies the start position in the packet for an offset. The start position can be the beginning of the header or data portions of various protocols.
<i>Offset</i>	This specifies the offset with in the header or data part of the packet.
<i>Comp Operation</i>	This specifies the type of comparison that is done on the extracted data and the comparison value(s)
<i>Low Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>High Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Relational.
<i>Mask</i>	This is hexadecimal pattern which specifies the mask

Caution

None.

References

None.

3.68 delete ppe pconf

Description

Use this command to delete a PPPoE AC-name to Service-name entry.

Command Syntax

```
delete ppe pconf acname AC-name srvname service-  
name
```

Parameters

Name	Description
<i>acname</i> AC-name	This specifies the Access Concentrator name. Type: Mandatory Valid values: String of up to 63 chars. ('A'-'Z', 'a'-'z', '0'-'9', '-', '_')
<i>srvname</i> service-name	This specifies the service name Type: Optional Valid values: String of up to 63 chars. ('A'-'Z', 'a'-'z', '0'-'9', '-', '_')

Mode

Super-User

Example

```
$ delete ppe pconf acname AC1 srvname Srv1
```

Output

Verbose Mode On:

```
Ac Name      : AC1  
Service Name : Srv1
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>ACName</i>	This specifies the Access Concentrator name
<i>ServiceName</i>	This specifies the service name

Caution

None.

References

- ❖ `create ppe pconf` command
- ❖ `get ppe pconf` command
- ❖ `ppe cfg` command
- ❖ `get ppe stats global` command
- ❖ `get ppe stats session` command

3.69 delete ppp inf

Description

Use this command to delete the specified ppp interface.

Command Syntax

```
delete ppp intf ifname interface-name
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the Interface for PPP Links, which is to be deleted. Type: Mandatory Valid values: ppp-0, ppp-1...

Mode

Super-User

Example

```
$ delete ppp intf ifname ppp-0
```

Output

Verbose Mode On:

```
If-Name : ppp-0 L2TP Call type : inlac
Interface Sec Type : Public Phy Interface : aal5-0
Configured IP Address : 0.0.0.0 NAT Direction : OUT
Init MRU : 1500 Magic : False
Encapsulation : PPPOA Service Name : -
UseDhcp : False UseDns : False
DRoute : False Status : Start
Gateway IP Address : 202.1.1.2 Associated Num If-Name : eth-0
Use Gateway : remote
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>If-Name</i>	This specifies the PPP interface for the PPP Links: It may be: ppp- 0, ppp-1...
<i>L2TP Call Type</i>	This field specifies the l2tp call type.
<i>Interface Sec Type</i>	Interface security type.
<i>Phy Interface</i>	This specifies Name of the lower interface on which PPP is running. It may be: aal5-0, aal5-1...
<i>Configured IP Address</i>	This specifies the IP Address for the PPP Link.
<i>NAT Direction</i>	This variable specifies whether this interface's address is inside or outside. It may be: inside, outside, none
<i>Init MRU</i>	The initial Maximum Receive Unit (MRU) that the local PPP entity will advertise to the remote entity

Magic	This specifies whether the local node will attempt to perform Magic Number negotiation with the remote node. It may be: True, False
Encapsulation	This specifies the lower layer protocol used below this PPP Link. It may be: PPPOA, PPPOE
Service Name	This specifies the service name used for PPPoE. It is generally the name of the ISP.
UseDhcp	This specifies whether DHCP is to be used for address negotiation. It may be either True or False
UseDns	This specifies whether DNS server addresses are to be obtained using IPCP or not.
Droute	Default Route
Status	This shows whether PPP session on this interface is active. It may be: Start, Stop, StartOnData.
Gateway IP Address	This specifies the IP Address of the Gateway.
Associated Num If-Name	This specifies the interface name of the associated numbered interface. A "-" indicates that this ppp interface is not associated with any numbered interface.
Use Gateway	This specifies whether local or remote gateway is to be used.

Caution

None.

References

- ❖ `get ppp intf` command
- ❖ `create ppp intf` command
- ❖ `modify ppp intf` command
- ❖ `ppp lstatus` related commands
- ❖ `ppp security` related commands.

3.70 delete ppp security

Description

Use this command to delete a PPP security secrets entry.

Command Syntax`delete ppp security ifname interface-name`**Parameters**

Name	Description
<i>ifname</i> <i>interface-name</i>	This specifies the PPP interface for which the security secrets entry is to be deleted. Type: Mandatory Valid values: ppp-0 - *, default.

Mode

Super-User

Example

\$ delete ppp security ifname ppp-0

Output

Verbose Mode On:

IfName : ppp-0 Protocol : PAP
Login : abc

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>IfName</i>	This specifies the PPP interface for which the security entry has been deleted. It may be: ppp-0 - * or default. The default entry gets used in case there is no specific entry for that interface.
<i>Protocol</i>	This is the protocol used for authentication It may be: PAP, CHAP
<i>Login</i>	This is the login name

Caution

Do not delete ppp security when ppp interface is using it.

References

- ❖ create ppp security command
- ❖ get ppp security command
- ❖ modify ppp security command
- ❖ ppp lstatus related commands
- ❖ ppp intf related commands

3.71 delete rip intf

Description

Use this command to stop RIP protocol on the specified IP Interface.

Command Syntax

delete rip intf ifname interface-name

Parameters

Name	Description
------	-------------

<i>ifname interface-name</i>	Specifies the IP Interface name on which RIP is to be stopped. Type: Mandatory Valid values: eth-0, veth-0 - *, ppp-0 - *, eoa-0 - *, ipoa-0-*, usb-0
------------------------------	---

Mode

Super-User

Example

delete rip intf ifname ppp-0

Output

Verbose Mode On:

```

IP Interface Name      : ppp-0                      RIP Interface Metric : 1
RIP Send Mode         : rip1                          RIP Receive Mode     : rip1
RIP Send Def Route    : Enable                       RIP Recv Def Route   :
Disable
RIP packet auth       : None

```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>IP Interface Name</i>	This tells the IP Interface name on which RIP is to be stopped.
<i>RIP Interface Metric</i>	This tells the metric value attached to the interface. The metric is used by RIP in deciding which among alternate routes is the most optimal.
<i>RIP Send Mode</i>	This tells the packet format used for sending RIP updates and requests
<i>RIP Receive Mode</i>	This tells the packet format accepted while receiving RIP updates and requests and responses
<i>RIP Send Def Route</i>	This tells whether default route is to be included in the updates sent on the interface, or not.
<i>RIP Recv Def Route</i>	This tells whether default route is to be processed in the updates received on the interface or not.
<i>RIP packet auth</i>	This tells whether RIP authentication is enabled or not

Caution

None.

References

- ❖ modify rip global command.

3.72 delete snmp comm

Description

Use this command to delete the specified community from the community table.

Command Syntax

```
delete snmp comm community comm-name
```

Parameters

Name	Description
<i>community comm-name</i>	This specifies the Community name which is to be deleted. Type: Mandatory Valid values: String of Max. 50 Characters('A'- 'Z', 'a'- 'z', '0'-'9', '-', '_')

Mode

Super-User

Example

```
$ delete snmp comm community public
```

Output

Verbose Mode On:

```
Access      Community
-----
RO          public

Entry Deleted
```

Verbose Mode Off:

```
Entry Deleted
```

Output field description

Field	Description
<i>Community</i>	This specifies the Community name
<i>Access</i>	This specifies the access permissions given to managers with this community name. It may be: RO (Read Only), RW (Read-Write)

Caution

A community cannot be deleted if there are some SNMP hosts created for the community.

References

- ❖ get snmp comm command
- ❖ create snmp comm command
- ❖ snmp trap related commands
- ❖ snmp host related commands
- ❖ snmp stats related commands

3.73 delete snmp host

Description

Use this command to delete the specified host from the SNMP host table.

Command Syntax

```
delete snmp host ip ip-addr community comm-name
```

Parameters

Name	Description
<i>ip ip-addr</i>	This specifies the IP address of the manager that has to be deleted for the specified community. Type: Mandatory Valid values: Any valid class A/B/C IP address
<i>community comm-name</i>	This specifies the Community name. This together with the ip determines which entry is to be deleted. Type: Mandatory Valid values: String of Max. 50 Characters ('A'-'Z', 'a'-'z', '0'-'9', '-')

Mode

Super-User

Example

```
$ delete snmp host community public ip 192.168.1.3
```

Output

Verbose Mode On:

```
Host Address      Community
-----
192.168.1.3      public
```

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
-------	-------------

<i>Host Address</i>	This specifies the IP address of the manager that has access permissions for modem
<i>Community</i>	This specifies the Community name.

Caution

None.

References

- ❖ get snmp host command
- ❖ create snmp host command
- ❖ snmp trap related commands
- ❖ snmp comm related commands
- ❖ snmp stats related commands

3.74 delete sntp servaddr

Description

Use this command to delete the SNTP server address.

Command Syntax

```
delete sntp servaddr <ip-address|dname domain-name>
```

Parameters

Name	Description
<ip-address> dname <domain-name>	This parameter specifies the IP address or fully qualified domain name of SNTP server address to be deleted.Type: MandatoryValid values: Valid IP address or fully qualified domain name.

Mode

Super-User

Example

```
$ delete sntp servaddr 192.168.1.1
```

Output

Verbose Mode On:

```
Server Addr : 192.168.1.1      Status : Active
Domain Name : abc.com

Entry Deleted
```

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Server Addr</i>	IP address of the SNTP server
<i>Status</i>	Operational Status of the SNTP server address entry.
<i>Domain Name</i>	The fully qualified domain name of the SNTP server.

Caution

None.

References

- ❖ `create sntp servaddr` command
- ❖ `get sntp servaddr` command
- ❖ `modify sntp cfg` command
- ❖ `get sntp cfg` command
- ❖ `get sntp stats` command
- ❖ `reset sntp stats` command

3.75 delete tcp conn

Description

Use this command to forcibly delete a TCP connection entry.

Command Syntax

```
delete tcp conn lclip local-ip-address lclport local-
port rmtip remote-ip-address rmtport remote-
port
```

Parameters

Name	Description
<i>lclip local-ip-address</i>	The local IP address for the TCP connection, which is to be deleted. Type: Mandatory Valid values: Any valid class A/B/C IP address
<i>lclport local-port</i>	The local port number for the TCP connection to be deleted. Type: Mandatory Valid values: 0-65535
<i>rmtip remote-ip-address</i>	The remote IP address for the TCP connection which is to be deleted Type: Mandatory Valid values: Any valid class A/B/C IP address
<i>rmtport remote-port</i>	The remote port number for the TCP connection to be deleted.

	Type: Mandatory Valid values: 0-65535
--	--

Mode

Super-User

Example

```
$ delete tcp conn lclip 192.168.1.11 lclport 80 rmtip 202.34.4.5  
rmtport 80
```

Output

Verbose Mode On:

Local Addr	Local Port	Remote Addr	Remote Port
192.168.1.11	80	202.34.4.5	80

Entry Deleted

Verbose Mode Off:

Entry Deleted

Output field description

Field	Description
<i>Local Addr</i>	The local IP address for the TCP connection.
<i>Local Port</i>	The local port number for the TCP connection.
<i>Remote Addr</i>	The remote IP address for the TCP connection
<i>Remote Port</i>	The remote port number for the TCP connection.

Caution

None.

References

- ❖ `get tcp conn` command
- ❖ `get tcp stats` command

3.76 delete usb intf

Description

Use this command to delete a USB interface.

Command Syntax

```
delete usb intf ifname interface-name
```

Parameters

Name	Description
------	-------------

<i>ifname</i> interface-name	This parameter specifies the USB interface, which has to be deleted. Type: Mandatory. Valid values: usb-0.
-------------------------------------	--

Mode

Super-User.

Example

```
$ delete usb intf ifname usb-0
```

Output

Verbose Mode On

IfName	If SecType	Ip Address	Mask	Nat Dir	Oper
usb-0	Public	192.168.1.1	255.255.255.0	Inside	Down

Set Done

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>IfName</i>	The name of the interface, which has been created.
<i>Ip Address</i>	IP address assigned to the usb-0 interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>Nat Dir</i>	This specifies the NAT direction, which may be: inside, outside or none.
<i>Oper</i>	The actual/current state of the interface. It can be either Up or Down
<i>If SecType</i>	Interface security type.

Caution

None.

References

- ❖ `create usb intf` command
- ❖ `get usb intf` command
- ❖ `modify usb intf` command
- ❖ `get usb stats` command

3.77 delete user

Description

Use this command to delete a user login.

Command Syntax

delete user name *user-name*

Parameters

Name	Description
<i>Name</i> <i>user-name</i>	This specifies the User Name to be deleted. Type: Mandatory Valid values: String of up to 128 characters ('A'-'Z', 'a'-'z', '0'-'9','-', '_')

Mode

Super-User

Example

\$ delete user name user1

Output

Verbose Mode On:

```
User Name : user1  
Privilege : user
```

```
Entry Deleted
```

Verbose Mode Off:

```
Entry Deleted
```

Output field description

Field	Description
<i>UserName</i>	This represents the user login which is being deleted.
<i>Privilege</i>	This represents the privilege level associated with the user being deleted. It may be: user, intermediate, root. In CLI, intermediate privilege has the same previliges as the user. In HTTP, the intermediate privilege has ALL the privileges as the "user" except that he can also modify the ATM VPI and VCI values and the PPP username and password.

Caution

If there is only one user login with root privileges then that entry cannot be deleted.

References

- ❖ create user command
- ❖ get user command
- ❖ passwd command

3.78 do getserialize

Description

Use this command to view the Viking unit's MAC address and serial number, and to view the serial number assigned to the USB host PC, if any.

Command Syntax

do getserialize

Parameters

None.

Example

\$do getserialize

Output

Verbose Mode On/Off:

```
Serial Number: 123456789abcdx
Ethernet Mac Address: 00-85-A0-01-01-00
Usb Host Mac Address: 00-85-A0-01-01-04
```

Output field description

Name	Description
<i>Serial Number</i>	The serial number assigned to the Viking unit
<i>Ethernet MAC Address</i>	The MAC address assigned to all LAN interfaces (i.e., eth-0 and usb-0) on the Viking unit
<i>Usb Host Mac Addrse</i>	The MAC address assigned to the USB host PC, if any.

Caution

None.

References

❖ `do serialize rule entry command`

3.79 do getver

Description

Use this command to get details about the current software and hardware versions.

Command Syntax

do getver

Parameters

None

Example

\$ do getver

Output

Verbose Mode On/Off:

```
SW Version: VIK-1.37.020618j
FW Version: T93.3.19
```

Output field description

Field	Description
<i>SW Version</i>	Current Software version
<i>HW Version</i>	Current hardware version

Caution

None.

References

None.

3.80 do serialize

Command Syntax

do serialize <Ethernet-MAC-Address> [Serial-Number] [USB-MAC Address]

Parameters

Name	Description
Ethernet-Mac-Address	Specifies the MAC address to assign to the Ethernet and USB ports on the Viking unit. Type: Mandatory Valid values: 6 hexadecimal pairs, with or without dashes
Serial-Number	Specifies the serial number to assign to the Viking unit. Type: Optional Valid values: any alphanumeric characters, up to 24
USB-MAC-Address	Specifies the MAC address to assign to the USB host PC (not the USB interface on the Viking unit) Type: Optional Valid values: 6 hexadecimal pairs, with or without dashes

Example

```
$do serialize a1-00-0b-00-00-26 8a723v842d79477499797adf a1-00-b0-00-78-26
```

Output

Verbose Mode On/Off:

```
REBOOT REQ: Awaiting Flash Access To Finish  
  
Serialization done. Rebooting the board...  
                (system reboots)
```

Output field description

None.

Caution

None.

References

- ❖ `do getserialize` command
- ❖ `get interface stats` command

download

Description

Use this command to download a configuration or binary file from another host on to the modem.

Command Syntax

```
download fname file-name ip ip-address
```

Parameters

Name	Description
<i>fname</i> <i>file-name</i>	This specifies the name of the binary or configuration file to be downloaded. The filename contains the complete path on the host. The filename extension must be either .cfg or .bin. A .cfg file can contain only valid CLI commands, with the last line being the string "end" (without the quotes). A .bin file must be a valid image file for the modem. Type: Mandatory Valid values: String of up to 128 characters (all characters except ';', ' ', '?')

<i>ip ip-address</i>	This specifies the address of the host from which the file is to be downloaded. Type: Mandatory Valid values: Any valid class A/B/C IP address
-----------------------------	--

Mode Type your question here and then click Search
Super-User.

Example

```
$ download frame myconfig.cfg ip 192.168.1.10
```

Output

Verbose Mode On:

```
Downloading The Code File. . .  
Download Completed
```

Verbose Mode Off:

```
Downloading The Code File. . .  
Download Completed
```

Output field description

None.

Caution

If the autoupdate flag is set to True, the downloaded file is applied immediately. In case of a .cfg file the commands in it are executed; in case of a .bin file the code in it is programmed into the flash (removing the earlier code) and the modem reboots with the new code. Ensure that the tftp server is running on the specified host.

References

- ❖ modify autoupdate command
- ❖ set autoupdate command
- ❖ remove command.
- ❖ list command.
- ❖ apply command.

3.81 get alg port

Description

Use this command to get one or all alg port entries, which satisfy a particular filtering criteria. The port number and protocol together uniquely identify an entry.

Command Syntax

```
get alg port [portno port-no]
```

Parameters

Name	Description
<i>portno port-no</i>	The Port number for which ALG entries are to be retrieved. The port here is the destination port of the untranslated packet. If none is specified then ALG entries for all ports are displayed. Type: Optional Valid values : 0 - 65535

Mode

Super-User, User

Example

```
$ get alg port
```

Output

Port Num	Protocol	ALG Type
-----	-----	-----
21	Tcp	FTP

Output field description

Field	Description
<i>Port Num</i>	The Port number on which the ALG is running. The port here is the destination port of the untranslated packet.
<i>Protocol</i>	The protocol for which this ALG is running.
<i>Port Type</i>	This specifies the ALG with has to be applied to this port. It may be: FTP, SNMP, REAL AUDIO, REMOTE CMD, L2TP, MIRC, CU-SEEME, H323_Q931, H323_RAS, PPTP, RTSP, TIM-BUKTU, LDAP, SGICOMPCORE, MSN MSGR, IKE, ESP

Caution

None.

References

- ❖ *delete alg port* command
- ❖ *create alg port* command
- ❖ *get alg type* command

3.82 get alg type

Description

Use this command to display all the ALGs that are supported in the system.

Command Syntax

get alg type

Parameters

None

Mode

Super-User, User

Example

\$ get alg type

Output

```
Alg Type
-----
FTP
SNMP
REAL AUDIO
REMOTE CMD
L2TP
MIRC
CUSEEME
H323_Q931
H323_RAS
PPTP
RTSP
TIMBUKTU
LDAP
T120
SGICompCore
MSN MSGR
IKE
ESP
```

Output field description

Field	Description
<i>Alg Type</i>	This is an ALG Type supported by the system. It may be:FTP, SNMP, REAL AUDIO, REMOTE CMD,L2TP,MIRC,CU-SEEME,H323_Q931,H323_RAS,PPTP,RTSP,TIMBUKTU, LDAP, T120, SGICompCore, MSN MSGR, IKE, ESP.

Caution

None.

References

❖ *get alg port* command

3.83 get arp

Description

Use this command to display either the full ARP table or a single entry.

Command Syntax

get arp [ip ip-address]

Parameters

Name	Description
<i>ip ip-address</i>	IP Address corresponding to the media-dependent 'physical' address for which information is to be displayed. If none is specified then information for all valid IPs in ARP Table is displayed. Type: Optional Valid Values : Any valid class A/B/C IP address

Mode

Super-User, User

Example

\$ get arp

Output

If Name	Type	Mac Address	Ip Address
eth-0	Static	00:00:00:00:00:00	127.0.0.1

Output field description

Field	Description
<i>If-Name</i>	This specifies the physical Interface for the media. It may be :eth-0 or veth-0 to veth-4

<i>Type</i>	This defines the type of mapping in use. The value Invalid has the effect that this entry is not used. It may be: Static, Dynamic, Other
<i>Mac Address</i>	The media-dependent 'physical' address
<i>IP Address</i>	<i>IP Address corresponding to the media-dependent 'physical' address</i>

Caution

None.

References

- ❖ *atm trfdesc* related commands
- ❖ *delete arp* command
- ❖ *create arp* command
- ❖ *ip stats* related commands
- ❖ *ip route* related commands
- ❖ *ip address* related commands
- ❖ *ip cfg* related commands.

3.84 get atm 1483 stats

Description

Use this command to retrieve Global Statistics related to RFC1483 encapsulation.

Command Syntax

get atm 1483 stats

Parameters

None

Mode

Super-User, User

Example

\$ get atm 1483 stats

Output

```
Invalid SAP count           : 2           Invalid Ctl count         : 0
Invalid OUI count          : 0           Invalid PID count         : 3
Unregistered Mea5 Protocol count : 0
```

Output field description

Field	Description
<i>Invalid SAP</i>	The number of frames received with invalid SAP in LLC header.
<i>Invalid Ctl</i>	The number of frames received with invalid Ctl in LLC header.
<i>Invalid OUI</i>	The number of frames received with invalid OUI in SNAP header.
<i>Invalid PID</i>	The number of frames received with invalid PID in SNAP header.
<i>Unregistered Mea5 Protocol</i>	The number of valid frames received but dropped since no upper layer was configured for the encapsulation type

Caution

None.

References

Other atm commands.

3.85 get atm aal5 stats

Description

Use this command to get AAL5 VC statistics.

Command Syntax

```
get atm aal5 stats [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid aal5 interfaces should be displayed. Type: Optional Valid values : aal5-0 - *

Mode

Super-User, User

Example

```
$ get atm aal5 stats ifname aal5-0
```

Output

```
LowIf          : atm-0      VPI          : 0      VCI : 1
VC IfName      : aal5-0
Tx Frames count : 100      Rx Frames count : 85
Tx Bytes count  : 1535     Rx Bytes count  : 1200
Large Pkts Rx count : 4      CIS Rx count    : 2
CRC Errors count : 0      Invalid CPI SDU count : 0
Invalid PAD count : 0      Invalid Length SDU count: 0
RAS Timer Expired count : 1
```

Output field description

Field	Description
<i>LowIf</i>	This specifies the ATM port name: It can be : atm-0
<i>VPI</i>	This is the Virtual Port Identifier
<i>VCI</i>	This is the Virtual Circuit Identifier
<i>VC IfName</i>	The name of the aal5 (aal5-0 etc)interface whose statistics are to be retrieved.
<i>Tx Frames</i>	This specifies the total number of frames sent on this AAL5 VC
<i>Rx Frames</i>	This specifies the total number of frames received on this AAL5 VC
<i>Tx Bytes</i>	This specifies the total number of octets sent on this AAL5 VC
<i>Rx Bytes</i>	This specifies the total number of octets received on this AAL5 VC
<i>Large Pkts Rx</i>	This specifies the number of AAL5 packets whose length is greater than the AAL5 CPCS receive SDU size
<i>CIS Rx</i>	This specifies the number of congestion Indication received from the lower layers
<i>CRC Errors</i>	This specifies the number of CRC errors encountered.
<i>Invalid CPI SDU</i>	This specifies the number of SDU received with invalid CPI
<i>Invalid PAD</i>	This specifies the number of SDU received with invalid PAD length
<i>Invalid Length SDU</i>	This specifies the number of SDU received with invalid length
<i>RAS Timer Expired</i>	This specifies the number of times reassembly timer expired

Caution

None.

References

- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *oam lpbk* command
- ❖ *atm port* and *statistics* related commands.

3.86 get atm port

Description

Use this command to get information about a specific or all atm ports.

Command Syntax

get atm port [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the ATM port for which information is to be displayed. If this is not specified then information for all ATM ports is displayed. Type: Optional Valid values : atm-0

Mode

Super-User, User

Example

\$ get atm port ifname atm-0

Output

```

If-Name      : atm-0                      MaxVccs      : 4
UBRPriority  : 1                          GFRPriority   : 2
Latency      : fast                      MaxConfVccs  : 0
OAMSrc      : 0xfffffffffffffffffffffffff
Oper Status  : Up                        Admin Status  : Up
    
```

Output field description

Field	Description
<i>If-Name</i>	This specifies the name of the ATM port. It can be : atm-0
<i>MaxVccs</i>	This specifies The maximum number of VCCs (PVCCs and SVCCs) supported at this ATM interface. It may be: 0-64
<i>UBRPriority</i>	Priority of the best effort traffic. A value 0 means no traffic of this class is supported. Higher the value, higher the priority. It may be : 0-2
<i>GFRPriority</i>	This specifies the priority of GFR class. A value 0 means no traffic of this class is supported. Higher the value, higher the priority. It may be: 0-2
<i>Latency</i>	Type of DSL channel in use on the underlying DSL port. It may be: fast, interleaved
<i>MaxConfVccs</i>	This specifies the current number of VCCs configured on this port. It may be :0 - Value defined in MaxVccs
<i>OAMSrc</i>	Loop back source id assigned to the ATM port. The ATM port will respond to all loopback cells which carry this OAM id.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down

Admin Status	The desired state of the interface. It may be either Up or Down
---------------------	---

Caution

None.

References

- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *oam lpbk* command
- ❖ *atm port* and *statistics* related commands.

3.87 get atm stats

Description

Use this command to get the ATM virtual port statistics for a specific port or for all ports.

Command Syntax

get atm stats [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the ATM port. If this is not specified then information for all interfaces is displayed. Type: Optional Valid values: <i>atm-0</i>

Mode

Super-User, User

Example

\$ get atm stats ifname atm-0

Output

```
If-Name      : atm-0
Rx User Cells count      : 200
Tx User Cells count      :
```

```

Rx OAM Cells count          : 10          Tx OAM Cells count
      : 9
Rx CLPI count              : 20          Tx CLPI count          :
15
Rx Bytes count             : 5000        Tx Bytes count
      : 4900
Rx OAM Seg Cells count     : 2           Tx OAM Seg Cells count
      : 4
Rx OAM End Cells count     : 8           Tx OAM End Cells count
      : 5
Rx CC Cells count          :10          Tx CC Cells count
      : 20
Rx CC AD Cells count       : 10         Tx CC AD Cells count
      : 20
Dropped Cells count        : 2           Invalid Cells count
      : 3
Out Of Rx Buffer count     : 0           Out of Rx Descr count
      : 0
Rejected Tx Pkts count     : 0          CRC Errors count          : 0
  
```

Output field description

Field	Description
<i>If-Name</i>	<i>The ATM port name: It can be: atm-00</i>
Rx User Cells	The number of user cells received on this interface
Tx User Cells	The number of user cells transmitted on this interface
Rx OAM Cells	The number of OAM cells received on this interface
Tx OAM Cells	The number of OAM cells transmitted on this interface
Rx CLPI	The number of cells received with Cell Loss Priority =1
Tx CLPI	The number of user cells transmitted with Cell Loss Priority =1
Rx Bytes	The number of bytes received (including ATM cell header)
Tx Bytes	The number of bytes transmitted (including ATM cell header)
Rx OAM Seg Cells	The number of OAM cells received for segment loopback
Tx OAM Seg Cells	The number of OAM cells transmitted for segment loopback
Rx OAM End Cells	The number of OAM cells received for end-to-end loopback
Tx OAM End Cells	The number of OAM cells transmitted for end-to-end loopback
Rx CC Cells count	This specifies the number of CC Cells (Cell used for Continuity Check) received on the ATM Port
Tx CC Cells count	This specifies the number of CC Cells (Cell used for Continuity Check) transmitted on the ATM Port
Rx CC AD Cells count	This specifies the number of CC Activation/DeactivationCells (Cell used for activating Continuity Check) received on the ATM Port
Tx CC AD Cells count	This specifies the number of CC Activation/DeactivationCells (Cell used for activating Continuity Check) transmitted on the ATM Port
Dropped Cells	The number of received cells discarded due to some error
Invalid Cells	The number of invalid received cells
Out Of Rx Buffer	The number of times receive buffer overflow was encountered
Out of Rx Descr	The number of time receive buffer descriptor overflow was encountered
Rejected Tx Pkts	The number of packets rejected because of resource crunch
CRC Errors	The number of packets rejected because of CRC errors

Caution

None.

References

- ❖ `reset atm stats` command
- ❖ `atm trfdesc` related commands
- ❖ `atm vc` related commands
- ❖ `oam lpbk` command
- ❖ `atm port` related commands.

3.88 get atm svccfg

Description

Use this command to get information on a particular SVC or all SVCs.

Command Syntax

```
get atm svccfg [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	Interface name of the configured SVC. Type: Optional Valid values: <i>aal5-0, aal5-1...</i>

Mode

Super-User, User.

Example

```
$ get atm svccfg ifname aal5-0
```

Output

```
VC IfName      : aal5-0          AAL5 Encap    : VC Mux
VPI            : 5              VCI           : 10
Numbering Plan : atmes
Dest Atm Address : 0x47000580ffde00000000001050000000000000
Trf Descr Index : 1              Access Protocol : PPPoA
Aal5 Tx Size   : 200            Aal5 Rx Size   : 200
```

Output field description

Field	Description
<i>VC Ifname</i>	Interface name of the configured SVC.
<i>AAAL5 Encap</i>	The type of Protocol Multiplexing used over 1483
<i>VPI</i>	The VPI of the ATM VC found towards the specified ATM Destination
<i>VCI</i>	The VCI of the ATM VC found towards the specified ATM Destination
<i>Numbering Plan</i>	The Address Plan to which the specified ATM Destination Address (for SVC to be opened) belongs.
<i>Dest Atm Address</i>	The ATM address of the destination with which the connection is established.
<i>Trf Descr Index</i>	The index of the Traffic Descriptor Table entry whose traffic parameters are for the SVC to be opened.
<i>Access Protocol</i>	This specifies the protocol that runs on the VC
<i>Aal5 Tx Size</i>	This specifies the transmit CPCS SDU size.
<i>Aal5 Rx Size</i>	This specifies the receive CPCS SDU size.

Caution

None.

References

- ❖ `create atm svccfg` command
- ❖ `delete atm svccfg` command

3.89 get atm trfdesc

Description

Use this command to get information for a specific traffic descriptor or all traffic descriptors.

Command Syntax

```
get atm trfdesc trfindex [traffic-descriptor-index]
```

Parameters

Name	Description
<i>trfindex traffic-descriptor-index</i>	This identifies the traffic descriptor entry which is to be retrieved. Type: Optional Valid values: 0 - *

Mode

Super-User, User

Example

```
$ get atm trfdesc trfindex 0
```

Output

```
Traffic Descr Id      : 0                Type                : NOCLP_NOSCR
Service Category     : UBR                Frame Discard       : Enabled
PCR                  : 0                MCR                  : 0
```

Output field description

Field	Description
<i>Traffic Descr Id</i>	This identifies the traffic descriptor.
<i>Type</i>	This defines the type of traffic used. It may be: <i>NOCLP_NOSCR</i> , <i>CLP_NOTAG_MCR</i> , <i>NOCLP_SCR</i> .
<i>Service Category</i>	This specifies the service category to be used. It may be: <i>UBR</i> , <i>GFR</i> , <i>CBR</i> , <i>RTVBR</i> , <i>NRTVBR</i> .
<i>Frame Discard</i>	It is always <i>Enabled</i> . It indicates that the network is requested to treat data for this connection, in the given direction, as frames (e.g. AAL5 CPCS_PDU's) rather than as individual cells. This treatment may for example involve discarding entire frames during congestion, rather than a few cells from many frames.
<i>PCR</i>	Peak Cell Rate for ATM Traffic.
<i>MCR</i>	Minimum Cell Rate for ATM Traffic.

Caution

None.

References

- ❖ *atm trfdesc* commands
- ❖ *atm vc* related commands
- ❖ *atm port* and *statistics* related commands.

3.90 get atm uni

Description

Use this command to get ATM UNI configuration information.

Command Syntax

get atm uni [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	Interface Index of the ATM VC over which UNI signaling is run. Type: Optional Valid values: <i>aal5-0, aal5-1...</i>

Mode

Super-User.

Example

\$ get atm uni ifname aal5-0

Output

```
IfName          : aal5-0          ATM Numb Plan : atmes
Status          : Up              Version       : UNI40
Self ATM Address : 0x39000760ff890000000000011900000000000000
```

Output field description

Name	Description
<i>Ifname</i>	Interface name of VC over which UNI signaling is running. It can be: <i>aal5-0, aal5-1...</i>
<i>ATM NumbPlan</i>	The Address Plan to which the specified ATM Source Address belongs.
<i>Status</i>	This specifies the status of the Signaling ATM Adaptation Layer (SAAL) layer. The purpose of SAAL is to provide reliable transfer of signaling message between peer UNI entities.
<i>Version</i>	This specifies the version of the UNI used. UNI31 and UNI40 mean UNI3.1 and UNI4.1 respectively.
<i>SelfAtmAddress</i>	The source ATM address.

Caution

None.

References

None.

3.91 get atm vc intf

Description

Use this command to display information corresponding to a single VC or for all VCs.

Command Syntax

get atm vc intf [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	Interface name of the VC which is to be displayed. If not specified then all VCs are displayed. Type: Optional Valid values: <i>aal5-0 - *</i>

Mode

Super-User, User

Example

\$ get atm vc intf ifname aal5-0

Output

```
LowIf          : atm-0          VPI           : 10          VCI   : 10
VC IfName      : aal5-0
Admin Status   : Up            Oper Status    : Up
Aal5 Tx Size   : 9200          Aal5 Rx Size  : 9200
AAL Type       : AAL5          AAL5 Encap    : LLC Mux
Max Aal5 Proto : 3            Trf Descr Index : 2
VC Weight      : 10
```

Output field description

Field	Description
<i>If-Name</i>	Interface name of the VC being displayed. It can be: <i>aal5-0, aal5-1...</i>

Lowif	Interface index of the underlying ATM port. It is always: <i>atm-0</i>
VPI	It is the Virtual Path Identifier.
VCI	It is the Virtual Circuit Identifier.
Oper Status	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>
Admin Status	The desired state of the interface. It may be either <i>Up</i> , <i>Down</i> or <i>Loopback</i> . <i>Loopback</i> has a special significance. A Loopback VC will loop back whatever cells it receives.
Aal5 Tx Size	This specifies the transmit CPCS SDU size to be used
Aal5 Rx Size	This specifies the receive CPCS SDU size to be used
AAL Type	AAL type in use for the VC
AAL5 Encap	This specifies the data multiplexing method to be used over the AAL5 SSCS layer.
Max Aal5 Proto	This specifies the maximum number of protocols that are supported over the VC
Trf Descr Index	This identifies the transmit traffic parameters in use. It corresponds to a valid entry in the traffic descriptor table
VC Weight	This specifies the priority of the VC. Higher value means higher priority

Caution

None.

References

- ❖ *atm vc intf* commands
- ❖ *atm trfdesc* related commands
- ❖ *oam lpbk* command
- ❖ *atm port* related commands
- ❖ *atm statistics* related commands.

3.92 get atm vc stats

Description

Use this command to get statistical information about a specific or all atm virtual circuits.

Command Syntax

```
get atm vc stats [ifname interface-name]
```

Parameters

Name	Description
<i>Ifname interface-name</i>	This specifies the Virtual Circuit. If this is not specified then information for all VCs is displayed. Type: Optional

Valid values: aal5-0 - *

Mode

User, Super-User

Example

```
$ get atm vc stats ifname aal5-0
```

Output

```
LowIf          : atm-0          VPI           : 1
VCI            : 1
VC IfName      : aal5-0
User Tx Cells count : 250          User Rx Cells
count : 200
OAM Tx Cells count : 3          OAM Rx Cells
count : 2
OAM LB Seg Tx Cells count : 3          OAM LB Seg Rx
Cells count : 2
OAM LB End Tx Cells count : 0          OAM LB End Rx Cells count
: 0
OAM CC Tx Cells count : 20          OAM CC Rx Cells count
: 10
OAM CC Tx AD Cells count : 20          OAM CC Rx AD Cells count : 10
CLPI 1 Tx Cells count : 10          CLPI 1 Rx Cells count : 9
Bytes Transmitted count : 5000          Bytes Received count :
4900
Rx BD Overflow count : 0          Rx Buff Overflow count : 0
Tx Pkts Rejected count : 0          Last Reset Time(sec) :
```

Output field description

Field	Description
<i>LowIf</i>	This specifies the ATM port name: It can be: atm-0
<i>VPI</i>	The Virtual Port Identifier.
<i>VCI</i>	The Virtual Circuit Identifier.
<i>VC Ifname</i>	The name of the aal5 (aal5-0) interfaces whose statistics are to be retrieved
<i>User Tx Cells</i>	This specifies number of user cells transmitted on this interface
<i>User Rx Cells</i>	This specifies number of user cells received on this interface
<i>OAM Tx Cells</i>	This specifies the number of OAM cells transmitted on this interface
<i>OAM Rx Cells</i>	This specifies the number of OAM cells received on this interface
<i>OAM LB Seg Tx Cells</i>	This specifies the number of OAM cells transmitted for segment loopback
<i>OAM LB Seg Rx Cells</i>	This specifies the number of OAM cells received for segment loopback
<i>OAM LB End Tx Cell</i>	This specifies the number of OAM cells transmitted for end-to-end loopback
<i>OAM LB End Rx Cells</i>	This specifies the number of OAM cells received for end-to-end loopback
<i>OAM CC Tx Cells</i>	This specifies the number of CC Cells (Cell used for Continuity

<i>count</i>	Check) transmitted on the ATM Port
<i>OAM CC Rx Cells count</i>	This specifies the number of CC Cells (Cell used for Continuity Check) received on the ATM Port
<i>OAM CC Tx AD Cells count</i>	This specifies the number of CC Activation/DeactivationCells (Cell used for activating Continuity Check) transmitted on the ATM Port
<i>OAM CC Rx AD Cells count</i>	This specifies the number of CC Activation/DeactivationCells (Cell used for activating Continuity Check) received on the ATM Port
<i>CLPI 1 Tx Cells</i>	This specifies the number of user cells transmitted with CLP=1
<i>CLPI 1 Rx Cells</i>	This specifies the number of cells received with CLP=1
<i>Bytes Received</i>	This specifies the number of bytes received (including ATM cell header)
<i>Rx Buff Descr Overflow</i>	This specifies the number of time receive buffer descriptor overflow was encountered
<i>Rx Buff Overflow</i>	This specifies the number of times receive buffer overflow was encountered
<i>Tx Pkts Rejected</i>	This specifies the number of packets rejected because of resource crunch
<i>Last Reset Time (sec)</i>	This specifies the time elapsed in seconds since the last reset for statistics for this interface.

Caution

None.

References

- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *oam lpbk* command
- ❖ *atm port* related commands
- ❖ *atm statistics* related commands.

3.93 get autodetect cfg

Description

Use this command to get the status of automatic detect mode.

Command Syntax

```
get autodetect cfg
```

Parameters

None

Mode

User, Super-User

Example

\$ get autodetect cfg

Output

Auto Detect Mode : Enable Mode : Bridge
Detect PPP : PADI LCP VC Range : From file

Output field description

Field	Description
<i>Auto Detect Mode</i>	Status of the Automatic Detect Mode.
<i>Mode</i>	This specifies whether modem is configured for bridging or routing mode.
<i>Detect PPP</i>	This specifies the auto detection procedure.
<i>VC Range</i>	This specifies the range of VC values for which auto detection procedure will be followed.

Caution

None

References

❖ *modify autodetect cfg*

3.94 get autoupdate

Description

Use this command to see the autoupdate flag

Command Syntax

get autoupdate

Parameters

None.

Mode

User, Super-User.

Example

\$ *get autoupdate*

Output

Auto Update : False

Output field description

Field	Description
<i>Auto Update</i>	This specifies the current value of the autoupdate flag. If it is <i>True</i> then any file downloaded using the <i>download command</i> is applied immediately after being downloaded (in case of a <i>.cfg</i> file its commands would be immediately executed; in case of a <i>.bin</i> file the code in it will get programmed into the flash and the modem will reboot with the new code). If the flag is <i>False</i> then the file is simply downloaded and not executed.

Caution

None.

References

- ❖ *apply* command
- ❖ *modify autoupdate* command
- ❖ *remove* command.
- ❖ *download* command.
- ❖ *list* command.

3.95 get bras cfg

Description

Use this command to get BRAS Configuration.

Command Syntax

get bras cfg

Parameters

None

Mode

Super-User, User

Example

`$ get bras cfg`

Output

Status : Enable

Output field description

Field	Description
<i>Status</i>	This field specifies whether Bridge Router Auto Sense (BRAS) feature is enabled or disabled. If enabled, the modem's PpOE client is disabled when a PpOE client is detected on the LAN.

Caution

None.

References

❖ `modify bras cfg` command.

3.96 `get bridge forwarding`

Description

Use this command to display the forwarding information available with the bridge for the specified address or for all the addresses.

Command Syntax

`get bridge forwarding [macaddr mac-address]`

Parameters

Name	Description
<i>macaddr mac-address</i>	A MAC address for which the bridge has forwarding and/or filtering information. If it is not specified then information for all MAC addresses is displayed. Type: Optional Valid values: 0:0:0:0:0:0 to FF:FF:FF:FF:FF:FE

Mode

Super-User, User

Example

```
$ get bridge forwarding macaddr 1:1:1:1:1:1
```

Output

MAC Addr	If-Name	Status
01:01:01:01:01:01	eth-0	Learned

Output field description

Field	Description
<i>MAC Addr</i>	A unicast MAC address for which the bridge has forwarding and/or filtering information
<i>If-Name</i>	It identifies the interface on which at least one frame corresponding to the MAC address above, has been seen. A value of <i>0</i> indicates that the forwarding information has not been learned dynamically but is available (e.g. by using <i>create bridge static</i> command).
<i>Status</i>	The status of this entry. The value <i>Learned</i> indicates that the value is known and currently being used. It may be: <i>Learned</i>

Caution

None.

References

- ❖ *bridge port* related commands.
- ❖ *bridge port stats* command

- ❖ *bridge static* related commands
- ❖ *bridge mode* related commands

3.97 get bridge tbg info

Description

Use this command to get bridging related global information.

Command Syntax

get bridge tbg info

Parameters

None.

Mode

Super-User, User

Example

\$ get bridge tbg info

Output

```
MacAddress           : 00:00:00:00:00:00
No. of Ports         : 2
Base Type            : Transparent
Learned Entry Discards : 0
Aging TimeOut(sec)   : 300
```

Output field description

Field	Description
<i>MacAddress</i>	The MAC address used by this bridge when it must be referred to in a unique fashion. It is the address of the ethernet port.
<i>No. of Ports</i>	The maximum number of ports that can be controlled by this bridge.
<i>Base Type</i>	Indicates what type of bridging this bridge can perform. It is always <i>Transparent</i> .
<i>Learned Entry Discards</i>	The total number of Forwarding Database entries, which have been or would have been learnt, but have been discarded due to a lack of space to store them in the Forwarding Database. If this counter is increasing, it indicates that the Forwarding Database is regularly becoming full (a condition which has unpleasant performance effects on the subnetwork). If this counter has a significant value but is not presently increasing, it indicates that the problem has been occurring but is not persistent.
<i>Aging TimeOut</i>	The timeout period in seconds for aging out dynamically learned forwarding information. 802.1D-1990

	recommends a default of 300 seconds.
--	--------------------------------------

Caution

None.

References

- ❖ *modify bridge tbg info* command
- ❖ *bridge* related commands
- ❖ *bridge port stats* related command
- ❖ *bridge static* command
- ❖ *bridge forwarding* command.

3.98 get bridge mode

Description

Use this command to get the current bridging mode of modem.

Command Syntax

get bridge mode

Parameters

None.

Mode

Super-User, User

Example

\$ get bridge mode

Output

```
Bridging      Wan to Wan Bridging
-----
enable        disable
```

Output field description

Field	Description
<i>Bridging</i>	This specifies whether bridging mode is enabled or disabled.
<i>Wan to Wan Bridging</i>	This specifies whether WAN-to-WAN bridging mode

is enabled or disabled..

Caution

None.

References

- ❖ *modify bridge mode* command
- ❖ *bridge port* command
- ❖ *bridge port stats* command
- ❖ *bridge static* command
- ❖ *bridge forwarding* command.

3.99 get bridge port intf

Description

Use this command to get the information about a specific bridge port or for all the ports.

Command Syntax

get bridge port intf [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the bridge Interface. If this is not specified then information for all interfaces is displayed. Type: Optional Valid values: <i>eo0 - *eth0, usb0</i>

Mode

Super-User, User

Example

\$ get bridge port intf ifname eth0

Output

Port	If-Name	Delay-Exceed-Discards	MTU-Exceed-Discards
1	eth-0	0	0

Output field description

Field	Description
<i>Port</i>	The port number of the interface for which information is being displayed.
<i>If-Name</i>	This specifies the Interface name corresponding to the above port. It can be: <i>eoan-0 - * , eth-0, usb-0</i>
<i>Delay-Exceed-Discards</i>	The number of frames discarded by this port due to excessive transit delay through the bridge
<i>MTU-Exceed-Discards</i>	The number of frames discarded by this port due to the frame size being greater than the MTU of the interface

Caution

None.

References

- ❖ *delete bridge port intf* command
- ❖ *create bridge port intf* command
- ❖ *bridge mode* commands
- ❖ *bridge port stats* command
- ❖ *bridge static* commands
- ❖ *bridge forwarding* commands

3.100 get bridge port stats

Description

Use this command to get the statistics of a single port or all the ports.

Command Syntax

```
get bridge port stats [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the bridge Interface. If this is not specified then information for all interfaces is displayed. Type: Optional Valid values: <i>eoan-0 - * , eth-0, usb-0</i>

Mode

Super-User, User

Example

```
$ get bridge port stats ifname eth-0
```

Output

```
If-Name           : eth-0
Delay Exceeded    : 0
Max Info Size     : 0
In Frames        : 129
MTU Exceeded     : 0
Out Frames       : 138
In Discards      : 3
```

Output field description

Field	Description
<i>If-Name</i>	This specifies the Interface name corresponding to which the statistics are being displayed. It can be: <i>eoan-0 - *</i> , <i>eth-0</i> , <i>usb-0</i>
<i>Delay Exceeded</i>	The number of frames discarded by this port due to excessive transit delay
<i>MTU Exceeded</i>	The number of frames discarded by this port due to an excessive size.
<i>Max Info Size</i>	The maximum size of the INFO (non-MAC) field that this port will receive or transmit
<i>Out Frames</i>	The number of frames that have been transmitted by this port to its segment.
<i>In Frames</i>	The number of frames that have been received by this port from its segment.
<i>In Discards</i>	Count of valid frames received which were discarded (i.e., filtered) by the Forwarding Process

Caution

None.

References

- ❖ *bridge mode* related commands
- ❖ *bridge port intf* command
- ❖ *bridge static* related commands
- ❖ *bridge forwarding* related commands.

3.101 get bridge static

Description

Use this command to get information about a specific or all bridge static entries.

Command Syntax

`get bridge static [macaddr mac-address][inifname interface- name|all]`

Parameters

Name	Description
<code>macaddr mac-address</code>	This identifies the entry for which the information is to be displayed. It is the destination MAC address in a frame to which this entry's filtering information applies. If not specified then information for all entries is displayed. Type: Optional Valid values: <code>0:0:0:0:0:1</code> to <code>FF:FF:FF:FF:FF:FE</code>

Mode

Super-User, User

Example

```
$ get bridge static macaddr 1:1:1:1:1:1
```

Output

```
MAC Address : 01:01:01:01:01:01 Incoming Interface : veth-0  
Interfaces : eth-0 eoa-1
```

Output field description

Field	Description
<code>MAC Address</code>	The destination MAC address in a frame to which this entry's filtering information applies
<code>Interfaces</code>	The interfaces to which frames received from a specific port and destined for the given MAC address, are allowed to be forwarded. They may be: <code>eth-0</code> , <code>eoas-*</code> , <code>usb-0</code>

Caution

None.

References

- ❖ `delete bridge static` command
- ❖ `create bridge static` command
- ❖ `modify bridge static` command
- ❖ `bridge mode` related commands
- ❖ `bridge port stats` related commands

- ❖ *bridge static* related commands
- ❖ *bridge forwarding* related commands

3.102 *get datauserslist*

Description

Use this command to get DHCP client information, for clients on the specified interface or for all the interfaces.

Command Syntax

get datauserslist

Parameters

None

Mode

Super-User, User

Example

\$ get datauserslist

Output

Verbose mode on/off

```
User Name : james
IP Address : 172.25.2.12
```

Output field description

Field	Description
<i>User Name</i>	This specifies the login name of the data user.
<i>IP Address</i>	This specifies the IP Address of host from which the data user is currently logged in.

Caution

None.

References

- ❖ *reset datauserslist* command
- ❖ *get usagectrl* command
- ❖ *modify usagectrl* command.

3.103 get dhcp client info

Description

Use this command to get DHCP client information, for clients on the specified interface or for all the interfaces.

Command Syntax

```
get dhcp client info [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the interface name on which DHCP is running. If this is not specified then information for clients on all such interfaces will be displayed. Type: Optional Valid values: <i>eth-0, eoa-0 - *</i>

Mode

Super-User, User

Example

```
$ get dhcp client info ifname eth-0
```

Output

```

If-name      Server      Status      Lease Start Date      Lease Time (sec)
-----
eth-0        1.1.1.1     Bound       Thu Jan 01 00:00:38 1970 500

```

Output field description

Field	Description
<i>If-Name</i>	This is an interface on which DHCP is running. It can be: <i>eth-0-*, etc.</i>
<i>Server</i>	This specifies the address of the DHCP server with whom the client has obtained the IP address and other configurations
<i>Status</i>	This specifies the current state of the client. It may be: <i>Init, Selecting, Bound, Requesting, Renew or Bind.</i>
<i>Lease Start Date</i>	This signifies the date on which the DHCP server leased out the IP address to the client.
<i>Lease Time</i>	This specifies the time period (in seconds) for which an IP address was leased out by the server. The client is expected to renew the lease before the expiry of this timer or release the IP Address

Caution

None.

References

- ❖ *dhcp client stats* related commands
- ❖ *dhcp server* related commands.

3.104 get dhcp client stats

Description

Use this command to get dhcp client statistics on an interface on which the dhcp client is running, or on all such interfaces. .

Command Syntax

get dhcp client stats [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the interface name on which DHCP is running. If this is not specified then information for clients on all such interfaces will be displayed. Type: Optional Valid values: <i>eth-0, eoa-0 - *</i>

Mode

Super-User, User

Example

\$ get dhcp client stats ifname eth-0

Output

```
If-name           : eth-0
Msgs Sent         : 4
Decline Sent      : 0
Discover Msgs Sent : 4
Req Sent          : 0
Rel Sent          : 0
Inform Sent       : 0
Msgs Rcvd         : 0
Offer Msgs Rcvd   : 0
Acks Rcvd        : 0
Nacks Rcvd       : 0
Invalid Rcvd     : 0
```

Output field description

Field	Description
<i>If-Name</i>	This is an interface on which DHCP is running: It can be:

	<i>eth-0</i>
<i>Msgs Sent</i>	This specifies number of dhcp messages sent on this interface
<i>Msgs Rcvd</i>	This specifies number of dhcp messages received on this interface
<i>Decline Sent</i>	This specifies number of dhcp decline messages sent on this interface
<i>Offer Msgs Rcvd</i>	This specifies number of dhcp offer messages received on this interface
<i>Discover Msgs Sent</i>	This specifies number of dhcp discover messages sent on this interface
<i>Req Sent</i>	This specifies number of dhcp request messages sent on this interface
<i>Acks Rcvd</i>	This specifies number of dhcp acks received on this interface
<i>Rel Sent</i>	This specifies number of dhcp release messages sent on this interface
<i>Nacks Rcvd</i>	This specifies number of dhcp nacks received on this interface
<i>Inform Sent</i>	This specifies number of dhcp inform messages sent on this interface.
<i>Invalid Rcvd</i>	This specifies number of invalid dhcp messages received on this interface

Caution

None.

References

- ❖ *dhcp client info* related commands
- ❖ *dhcp server* related commands

3.105 get dhcp relay cfg

Description

Use this command display DHCP relay global configuration.

Command Syntax

get dhcp relay cfg

Parameters

None.

Mode

Super-User, User

Example

`$ get dhcp relay cfg`

Output

```
Status      : Disable
Server IP   : 202.64.23.4
```

Output field description

Field	Description
<i>Status</i>	This specifies the Admin Status of the DHCP Relay. It may be: <i>Enable, Disable</i>
<i>Server IP</i>	This specifies the IP Address where the DHCP Server is running.

Caution

None.

References

- ❖ `modify dhcp relay cfg` command
- ❖ `fdhcp relay stats` related commands.

3.106 get dhcp relay intf

Description

Use this command to display a list of all interfaces on which DHCP relaying is enabled.

Command Syntax

```
get dhcp relay intf [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the physical Interface. If this is not specified then information for all interfaces on which DHCP Relaying is enabled is displayed. Type: Optional Valid values: <i>eth-0, ppp-0 - *,...</i>

Mode

Super-User, User

Example

```
$ get dhcp relay intf
```

Output

```
If-name  
-----  
eth-0
```

Output field description

Field	Description
<i>If-Name</i>	This specifies an interface which is enabled for DHCP Relay. It can be: <i>eth-0, ppp-0 - *, ...</i>

Caution

None.

References

- ❖ *delete dhcp relay intf* command
- ❖ *create dhcp relay intf* command
- ❖ *dhcp relay cfg* related commands
- ❖ *dhcp relay stats* related commands

3.107 get dhcp relay stats

Description

Use this command to display the global DHCP relay statistics.

Command Syntax

```
get dhcp relay stats
```

Parameters

None.

Mode

Super-User, User

Example

```
$ get dhcp relay stats
```

Output

```
Msgs Rcvd           : 10           Msgs Rlyd           : 10
```

```
Requests Rcvd           : 5           Requests Rlyd           : 5
Replies Rcvd           : 5           Replies Rlyd           : 5
Requests Drop          : 0           Replies Drop           : 0
Req Drop InvlD Hops    : 0           Reply Drop NotConn Dir : 0
Req Drop Intf Disabld  : 0           Msgs Drop Relay Disabld : 0
```

Output field description

Field	Description
<i>Msgs Rcvd</i>	Total no of msgs received
<i>Msgs Rlyd</i>	Total no of messages relayed
<i>Requests Rcvd</i>	Total no of BOOTREQUEST messages received
<i>Requests Rlyd</i>	Total no of BOOTREQUEST messages relayed
<i>Replies Rcvd</i>	Total no of BOOTREPLY messages received
<i>Replies Rlyd</i>	Total no of BOOTREPLY messages relayed.
<i>Requests Drop</i>	Total no of BOOTREQUEST messages dropped
<i>Replies Drop</i>	Total no of BOOTREPLY messages dropped.
<i>Req Drop Hops</i>	Total no of messages dropped because 'hops' value is greater than 16.
<i>Replies Drop NotConn</i>	Total no of BOOTREPLY messages dropped because client to which it is to be relayed is not connected directly.
<i>Req Drop Intf</i>	Total no of BOOTPREQUEST messages dropped because relaying is disabled for the interface on which the message was received.
<i>Msgs Drop Relay</i>	Total no of messages dropped because relaying is disabled in the global configuration

Caution

None.

References

- ❖ `create dhcp` command
- ❖ `reset dhcp` command
- ❖ `relay stats` command
- ❖ `dhcp relay cfg` related commands
- ❖ `dhcp relay intf` related commands

3.108 get dhcp server address

Description

This command is used for getting information about specific client or information of all the clients (when ip-addr is not specified) from the DHCP Server Address Table. The client be a static client, created by executing a `create dhcp server host` command or a dynamic client.

Command Syntax

```
get dhcp server address [ip ip-address]
```

Parameters

Name	Description
<i>ip ip-address</i>	The IP address of client. If this is not specified then information for all entries in the address table is displayed. Type: Optional Valid values: Any valid class A/B/C IP address

Mode

Super-User, User

Example

```
$ get dhcp server address
```

Output

```
Client-IP      : 192.168.1.200      Subnet Mask    : 255.255.0.0
Rem Lease(sec) : 0                H/W Addr       : AA:AA:BC:1A:44:45
Start Ip       : 0.0.0.0          Type           : Static
Domain Name    : abc
```

Output field description

Field	Description
<i>Client-IP</i>	The IP address of the Client whose information is being displayed.
<i>Subnet Mask</i>	The subnet mask provided to the client offered this address
<i>Rem Lease</i>	The number of seconds until the lease expires. A value of 4294967295 is used for BOOTP leases and for leases that have an 'infinite' lease time.
<i>H/W Addr</i>	The hardware address of the client that has been assigned this lease.
<i>Start Ip</i>	The starting IP address of the range (in DHCP Server Pool Table) to which this address belongs. If the address does not fall into one of the configured ranges the value displayed will be 0.0.0.0
<i>Type</i>	The type of this address. The valid values are: Static, Dynamic, Config-Reserved, Server-Reserved.
<i>Domain Name</i>	The domain name assigned to the client

Caution

None.

References

- ❖ *dhcp server* related commands
- ❖ *dhcp client* related commands
- ❖ *dhcp server pool* related commands
- ❖ *dhcp server host* related commands

3.109 get dhcp server cfg

Description

Use this command to display the current status of the DHCP server.

Command Syntax

get dhcp server cfg

Parameters

None.

Mode

Super-User, User

Example

\$ get dhcp server cfg

Output

```
Status : Enable
Def Pri DNS Server : 172.25.8.9    Def Sec DNS Server : 172.25.7.67
```

Output field description

Field	Description
<i>Status</i>	The state of the DHCP Server. It may be either <i>Enable</i> or <i>Disable</i>
<i>Def Pri DNS Server</i>	The default primary DNS server assigned by the DHCP server when user does not specify a primary DNS server in the DHCP pool configuration
<i>Def Sec DNS Server</i>	The default secondary DNS server assigned by the DHCP server when user does not specify a secondary DNS server in the DHCP pool configuration

Caution

None.

References

- ❖ *modify dhcp server cfg* command
- ❖ *dhcp client* related commands
- ❖ *dhcp server pool* related commands
- ❖ *dhcp server host* related commands

3.110 get dhcp server exclude

Description

Use this command for a listing of all the IP addresses that have been excluded globally.

Command Syntax

get dhcp server exclude

Parameters

None.

Mode

Super-User, User

Example

\$ get dhcp server exclude

Output

Entry Created

Ip Address

192.168.1.5

Output field description

Field	Description
<i>Ip Address</i>	This is the IP address that has been excluded.

Caution

None.

References

- ❖ *delete dhcp server exclude* command
- ❖ *create dhcp server exclude* command

❖ *dhcp server pool* related commands

3.111 get dhcp server host

Description

Use this command to get information pertaining to a specific static DHCP host or for all static hosts.

Command Syntax

get dhcp server host [ip ip-address]

Parameters

Name	Description
<i>ip ip-address</i>	This specifies the IP address of the host whose information is to be displayed. If no IP address is specified then information for all static hosts is displayed. Type: Optional Valid values: Any valid class A/B/C IP address

Mode

Super-User, User

Example

\$ get dhcp server host ip 192.168.1.7

Output

```
Host Ip           : 192.168.1.7           Hardware Addr    : 12 34 45 56 03 02
Def Lease(sec)   : 2592000                Max Lease(sec)   : 31536000
Domain Name      :
Subnet Mask      : 255.255.255.0
Gateway Ip       : 0.0.0.0           Sntp Ip          : 0.0.0.0
Dns Ip           : 0.0.0.0           Sec. Dns Ip      : 0.0.0.0
Pop3 Ip          : 0.0.0.0           Nntp Ip          : 0.0.0.0
Www Ip           : 0.0.0.0           Irc Ip           : 0.0.0.0
Wins Ip          : 0.0.0.0           Sec. Wins Ip     : 0.0.0.0
```

Output field description

Field	Description
<i>Host Ip</i>	This specifies the IP address to be provided to this host
<i>Hardware Addr</i>	This specifies the hardware address of the client
<i>Def Lease</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
<i>Max Lease</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.

<i>Domain Name</i>	Specifies the domain name configured for this host
<i>Subnet Mask</i>	This specifies the subnet mask to be provided to the host
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>Sntp Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec. Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server
<i>Www Ip</i>	This specifies the IP address of the WWW Serve
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec. Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

None.

References

- ❖ `create dhcp server host` command
- ❖ `delete dhcp server host` command
- ❖ `modify dhcp server host` command
- ❖ `dhcp server` related commands

3.112 get dhcp server pool

Description

This command is used to get information about a specific or all configured DHCP pools.

Command Syntax

```
get dhcp server pool [pool-id pool-id]
```

Parameters

Name	Description
<i>pool-id pool-id</i>	This identifies the pool for which information is to be retrieved. If no pool ID is specified then information for all pools is displayed. Type: Optional Valid values: 0-* , where * depends upon the iad.conf value.

Mode

Super-User, User

Example

```
$ get dhcp server poolid 0
```

Output

```
Entry Created

Pool Id      : 0                Status      : Disable
Start Ip     : 192.168.1.1    End Ip      : 192.168.1.200
Def Lease(sec) : 2592000        Max Lease(sec) : 31536000
Range Inuse  : 0                Outstd Offers : 0
Low Thres   : 0                Subnet Mask  : 255.255.255.0
Domain Name  :
Gateway Ip   : 0.0.0.0        Sntp Ip     : 0.0.0.0
Dns Ip      : 0.0.0.0        Sec. Dns Ip : 0.0.0.0
Pop3 Ip     : 0.0.0.0        Nntp Ip     : 0.0.0.0
Www Ip      : 0.0.0.0        Irc Ip      : 0.0.0.0
Wins Ip     : 0.0.0.0        Sec. Wins Ip : 0.0.0.0
```

Output field description

Field	Description
<i>Pool Id</i>	This is the pool identifier.
<i>Status</i>	This defines the Admin status of the entry. It may be either <i>Enable</i> or <i>Disable</i>
<i>Start Ip</i>	The IP address of the first address in the range.
<i>End Ip</i>	The IP address of the last address in the range
<i>Def Lease</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
<i>Max Lease</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.
<i>Range Inuse</i>	The number of addresses in this range that are currently in use. This number includes those addresses whose lease has not expired and addresses which have been reserved
<i>Outstd Offers</i>	The number of outstanding DHCP OFFER messages for this range is reported with this value. An offer is outstanding if the server has sent a DHCP OFFER message to a client, but has not yet received a DHCP REQUEST message from the client nor has the server-specific timeout, within which a client can respond to the offer message, for the offer message expired
<i>Low Thres</i>	This specifies the lowest threshold value on the number of available/ free IP addresses for a particular shared network
<i>Subnet Mask</i>	The subnet mask provided to any client offered an address from this range
<i>Domain Name</i>	Domain name used per subnet.
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>Sntp Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec. Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server
<i>Www Ip</i>	This specifies the IP address of the WWW Serve
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec. Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

None.

References

- ❖ *modify dhcp server pool* command
- ❖ *create dhcp server pool* command
- ❖ *get dhcp server pool* command
- ❖ *dhcp server cfg* related commands
- ❖ *dhcp server exclude* related commands
- ❖ *dhcp server address* related commands

3.113 get dhcp server stats

Description

Use this command to get the global statistics for DHCP Server.

Command Syntax

get dhcp server stats

Parameters

None.

Mode

Super-User, User

Example

\$ get dhcp server stats

Output

```
Msgs Sent           : 0           Msgs Rcvd           : 0
Offers Sent         : 0           Discover Rcvd       : 0
Acks Sent           : 0           Rel Rcvd            : 0
Nacks Sent          : 0           Inform Rcvd        : 0
Drop Invld Client   : 0           Decline Rcvd       : 0
Drop Invld Subnet   : 0           Req Rcvd            : 0
Active Pools        : 0           Invalid Rcvd       : 0
IP Inactive Pools   : 0
IP Curr Leased      : 0           IP Curr Free        : 0
IP Curr Unavailable : 0           IP Curr Forced Renew: 0
```

Output field description

Field	Description
<i>Msgs Sent</i>	This defines number of DHCP messages sent by the server
<i>Msgs Rcvd</i>	This defines number of DHCP messages received by the server
<i>Offers Sent</i>	This defines number of DHCP Offer messages sent by the server
<i>Discover Rcvd</i>	This defines number of DHCP Discover messages received by the server
<i>Acks Sent</i>	This defines number of ack messages sent by the server
<i>Rel Rcvd</i>	This defines number of DHCP release messages received by the server
<i>Nacks Sent</i>	This defines number of Nack messages sent by the server
<i>Inform Rcvd</i>	This defines number of DHCP inform messages received by the server
<i>Drop Invl Client</i>	The number of DHCP packets dropped because the client referred
<i>Decline Rcvd</i>	This defines number of DHCP decline messages received by the server
<i>Drop Invl Subnet</i>	The number of DHCP packets dropped due to the server not serving addresses on the subnet from which this message was received
<i>Req Rcvd</i>	This defines number of DHCP request messages received by the Server
<i>Active Pools</i>	This specifies number of active pools
<i>Invalid Rcvd</i>	This defines number of invalid messages received by the server
<i>IP Inactive Pools</i>	This specifies number of IP addresses in the inactive pools
<i>IP Curr Leased</i>	This specifies the number of addresses currently leased out
<i>IP Curr Free</i>	This specifies the number of addresses available for the lease
<i>IP Curr Unavailable</i>	This specifies number of IP addresses currently unavailable
<i>IP Curr Forced Renew</i>	This specifies the number of IP addresses currently in forced re-new state

Caution

None.

References

- ❖ *reset dhcp server stats* command
- ❖ *dhcp server cfg* related commands
- ❖ *dhcp server exclude* related commands
- ❖ *dhcp server address* related commands
- ❖ *dhcp server pool* related commands

3.114 get dns relay cfg

Description

Use this command to get DNS relay configuration information.

Command Syntax

get dns relay cfg

Parameters

None

Output

Verbose Mode On

Status : Disable

Verbose Mode off

Status : Disable

Output field description

Field	Description
<i>Status</i>	This specifies whether DNS relay is enabled or disabled.

Mode

User

Example

\$ get dns relay cfg

Caution

None

References

❖ *modify dns relay cfg* command

3.115 *get dns relay stats*

Use this command to get DNS relay stats values.

Command Syntax:

get dns relay stats

Mode:

User

Example:

\$ get dns relay stats

Output:

Verbose mode on

DNS Server in Use : 172.24.89.100

Requests Received Count : 20

Requests Forwarded Count : 20

Responses Received Count : 20

Responses Forwarded Count : 20

Table Full Count : 0

No Server Configured Count : 0

No Valid Entry Count : 0

Verbose mode off

DNS Server in Use : 172.24.89.100

Requests Received Count : 20

Requests Forwarded Count : 20

Responses Received Count : 20

Responses Forwarded Count : 20

Table Full Count : 0

No Server Configured Count : 0

No Valid Entry Count : 0

Output Field description:

Field	Description
<i>DNS Server in Use</i>	This parameter specifies the current DNS server in use by DNS relay.
<i>Requests Received count</i>	This parameter specifies the number of DNS requests received by DNS Relay
<i>Requests Forwarded Count</i>	This parameter specifies the number of DNS requests forwarded by DNS relay.
<i>Responses Received Count</i>	This parameter specifies the number of DNS responses received by DNS relay from DNS server.
<i>Responses Forwarded Count</i>	This parameter specifies the number of DNS responses forwarded by DNS relay to the hosts.
<i>Table Full Count</i>	This parameter specifies the number of DNS requests dumped because the DNS relay session table is full.
<i>No Server Configured Count</i>	This parameter specifies the number of DNS requests dumped by DNS Relay because no valid DNS server was configured at DNS Relay.
<i>No Valid Entry Count</i>	This parameter specifies the number of DNS responses dumped because no valid DNS Relay session entry exists for it.

Caution:

None

References :

3.116 get dns servaddr

Description

Use this command to get DNS server addresses.

Command Syntax

get dns servaddr

Parameters

None

Mode

User, Super-User.

Example

```
$ get dns servaddr
```

Output

Verbose mode on:

```
DNS Server IP Address
```

```
-----
```

```
172.24.32.100
```

```
192.168.2.48
```

Verbose mode off:

```
DNS Server IP Address
```

```
-----
```

```
172.40.30.150
```

```
192.168.2.48
```

Output Field description:

Field	Description
<i>DNS Server IP Address</i>	This specifies the IP address of the DNS server.

Caution

None

References:

3.117 get dsl config

Description

Use this command to get the global statistics for DHCP Server.

Command Syntax

```
get dsl config
```

Parameters

None

Mode

Super-User.

Example

```
$ get dsl config
```

Output

```
Whip                : Disable      Annex Type          : Annex A
Standard            : G.dmt       Trellis coding      : Enable
ExpExchSeq          : Expanded    Framing structure   : Framing-3
TxAttenuation(dB)  : 0           Coding Gain         : Auto
TxBinAdjust         : Enable      RxBinAdjust        : Disable
TxStartBin          : 6           TxEndBin           : 31
RxStartBin          : 32          RxEndBin           : 255
Fast Retrain        : Disable     Esc Fast Retrain    : Disable
MaxBits/bin On Rx  : 14          Bit Swap           : Disable
Dual Latency        : Enable      Pmode              : Enable
Pilot Request       : Enable      Last Failed Status  : 0x19
OperStatus          : Shakeup     Startup Progress    : 0xa0
AC Mode item        : fbm         AC Ttr R Offset     : 0
AC Pilot Request    : Disable     EC Fdm Mode         : ec
```

Output field description

Field	Description
<i>Whip</i>	Enable or disable Windows Based Host Interface Program
<i>Standard</i>	This specifies the standard to be supported for the DSL line.
<i>Trellis coding</i>	This is used to enable or disable Trellis coding on the interface.
<i>ExpExchSeq</i>	Expanded Exchange Sequence (EES) enable/disable, only valid for T1.413. This is largely for compatibility testing.
<i>Framing structure</i>	Full overhead to reduced overhead (0x00-03). This value is ignored for G.lite

	(G992.2).
<i>TxBinAdjust</i> (dB)	This specifies the value of transmit power attenuation. Its range is from 0dB to 12dB.
<i>Coding Gain</i>	Coding gain is the gain due to trellis/RS coding. Its value ranges from 0 to 7dB.
<i>TxBinAdjust</i>	Enable or disable automatic bin adjustment for transmit signal.
<i>RxBinAdjust</i>	Enable or disable automatic bin adjustment for receive signal.
<i>TxStartBin</i>	Lowest bin number allowed for transmit signal
<i>TxEndBin</i>	Highest bin number allowed for transmit signal.
<i>RxStartBin</i>	Lowest bin number allowed for receive signal
<i>RxEndBin</i>	Highest bin number allowed for receive signal.
<i>Fast Retrain</i>	Enable or disable fast retrain capability.
<i>Esc Fast Retrain</i>	Enable or disable escape to fast retrain capability.
<i>MaxBits/bin On Rx</i>	Maximum number of receive bits per bin.
<i>Bit Swap</i>	Enable or disable bit swapping,
<i>Dual Latency</i>	Enable or disable dependant upon support of dual latency. Valid only for T1.413 and G.DMT.
<i>Pmode</i>	If enable, use the upstream pilot for data if the CO is Globe-Span.
<i>Pilot Request</i>	Enable or disable request for pilot tone during training.
<i>Last Failed Status</i>	This value is reset to 0 each time a startup is attempted. If there is a failure, it indicates the reason for the failure.
<i>Oper Status</i>	Operational status of the transceiver. Values include Idle, Showtime/Data, Bootup Load, Startup HShake, Startup Trning, Framr Sync, Lcl Anlg Lpbk, Lcl Dig Lpbk, Spectrum Test.
<i>Startup Progress</i>	Detailed startup information to be used for debugging.
<i>AC Mode item</i>	This specifies the Annex C mode item
<i>AC Ttr R Offset</i>	This specifies the Annex C Ttr R Offset
<i>AC Pilot Request</i>	This specifies the Annex C Pilot Request.
<i>EC Fdm Mode</i>	This specifies the Echo Cancellation Fdm mode.

Caution

None.

See Also

❖ modify dsl config

3.118 get dsl params

Description

Use this command to get DSL parameters

Command Syntax

get dsl params

Parameters

None.

Mode

Super-User.

Example

\$ get dsl params

Output

```
Vendor ID           : 00B5GSPN
Revision Number     : R67.3.3
Serial number       : 123456789abcdx
Self Test           : Passed           Framing Structure
: Framing-0
Standard            : T1.413           Trellis Coding
: Disable
Local Tx. Power(dB) : 0.0             Remote Tx.
Power(dB): 0.0
Local Line Atten(dB) : 0.5           Remote Line
Atten(dB): 0.5
Local SNR Margin(dB) : 0.0           Remote SNR
Margin(dB): 0.0
Up SValue           : 0             Down SValue
: 0
Up DValue            : 0             Down DValue
: 0

DownFast            UpIntrlvd  UpFast  DownIntrlvd
AS0 (kbps) :          -          -          128          96
AS1 (kbps) :          -          -          192          160
LS0 (kbps) :          576         544          -          -
LS1 (kbps) :          640         608          -          -
```

RValue : 0 0 0 0

Output field description

Field	Description
<i>Vendor ID</i>	Vendor ID
<i>Revision Number</i>	OEM's product revision number
<i>Self Test</i>	Indicates whether DSL line has passed self-test. Can be passed or failed.
<i>Serial Number</i>	Serial number of unit
<i>Local Line Atten</i>	Local Line Attenuation - Indicates line attenuation where the attenuation is the difference in dB between the power received at the near-end and that transmitted from the far-end. Received signal power in dBm is the sum of all data carrying (i.e. b i >0) DMT subcarrier powers averaged over a one second period. The attenuation ranges from 0 to 63.5 dB in 0.5 dB increments.
<i>Local SNR Margin</i>	Local Signal to Noise Ration (SNR) Margin which represents the amount of increased received noise (in dB) relative to the noise power that the system is designed to tolerate and still meet the target BET of 10 ⁻⁷ , accounting for all coding gains included in the design. The SNR ranges from -64.0 dB to +63.5dB in 0.5 dB increments.
<i>NearSEF</i>	Count of near-end severely errored frame defects
<i>NearLOS</i>	Count of near-end loss of signal defects
<i>FarSEF</i>	Count of far-end severely errored frame defects
<i>FarLOS</i>	Count of far-end loss of signal defects
<i>NearFECInterleave</i>	Count of near-end Reed-Solomon forward error corrections for the interleaved data stream
<i>NearFECFast</i>	Count of near-end Reed-Solomon forward error corrections for the fast data stream
<i>FarFECInterleave</i>	Count of far-end Reed-Solomon forward error corrections for the interleaved data stream
<i>FarFECFast</i>	Count of far-end Reed-Solomon forward error corrections for the fast data stream
<i>NearCRCInterleave</i>	Count of CRC near-end (cyclic redundancy check) anomalies for the interleaved data stream
<i>NearCRCFast</i>	Count of near-end CRC (cyclic redundancy check) anomalies for the fast data stream
<i>FarCRCInterleave</i>	Count of CRC far-end (cyclic redundancy check) anomalies for the interleaved data stream
<i>FarCRCFast</i>	Count of far-end CRC (cyclic redundancy check) anomalies for the fast data stream
<i>NearNCDInterleave</i>	Count of near-end no cell delineation for the interleaved data stream. Counts until in synch for the first time.
<i>NearNCDFast</i>	Count of near-end no cell delineation for the fast data stream. Counts until in synch for the first time.
<i>FarNCDInterleave</i>	Count of far-end no cell delineation for the interleaved data stream. Counts until in synch for the first time.
<i>FarNCDFast</i>	Count of far-end no cell delineation for the fast data stream. Counts until in synch for the first time.
<i>NearHECInterleave</i>	Near-end header error check counter for the interleaved data stream
<i>NearHECFast</i>	Near-end header error check counter for the fast data stream

<i>FarHECInterleave</i>	Far-end header error check counter for the interleaved data stream
<i>FarHECFast</i>	Far-end header error check counter for the fast data stream
<i>NearOCInterleave</i>	Count of near-end out of cell delineation for the interleaved data stream. Counts if has been in synch, then becomes out of synch.
<i>NearOCDFast</i>	Count of near-end out of cell delineation for the fast data stream. Counts if has been in synch, then becomes out of synch.
<i>Remote Line Atten</i>	Remote Line Attenuation - Indicates remote line attenuation where the attenuation is the difference in dB between the power received at the near-end and that transmitted from the far-end. Received signal power in dBm is the sum of all data carrying (i.e. b i >0) DMT subcarrier powers averaged over a one second period. The attenuation ranges from 0 to 63.5 dB in 0.5 dB increments.
<i>Remote SNR Margin</i>	Remote Signal to Noise Ration (SNR) Margin which represents the amount of increased received noise (in dB) relative to the noise power that the system is designed to tolerate and still meet the target BET of 10 ⁻⁷ , accounting for all coding gains included in the design. The SNR ranges from -64.0 dB to +63.5dB in 0.5 dB increments.
<i>Standard</i>	Actual standard of the DSL line.
<i>Trellis Coding</i>	Actual Trellis Coding
<i>Local Tx Power(dB)</i>	Local Transmit Power.
<i>Framing Structure</i>	Actual framing structure.
<i>Rvalue UpIntrlvd</i>	Number of redundant bytes per ReedSolomon code word for the interleaved buffer in the upstream direction.
<i>Rvalue UpFast</i>	Number of redundant bytes per ReedSolomon code word for the fast buffer in the upstream direction.
<i>Rvalue DownIntrlvd</i>	Number of redundant bytes per ReedSolomon code word for the interleaved buffer in the downstream direction.
<i>Rvalue DownFast</i>	Number of redundant bytes per ReedSolomon code word for the fast buffer in the downstream direction.

Caution

None.

References

- ❖ `modify dsl config` command
- ❖ `get dsl config` command

3.119 get dsl stats cntrs**Description**

Get DSL statistics error counters.

Command Syntax`get dsl stats cntrs`

Parameters

None.

Mode

User and Super-User.

Example

```
$ get dsl stats cntrs
```

Output

Verbose Mode On

```
Near SEF          : 0          Near LOS          : 0
Far SEF           : 0          Far LOS           : 0
Near FEC Interleave : 0        Near FEC Fast     : 0
Far FEC Interleave : 0        Far FEC Fast     : 0
Near CRC Interleave : 0        Near CRC Fast     : 0
Far CRC Interleave : 1        Far CRC Fast     : 0
Near NCD Interleave : 0        Near NCD Fast     : 0
Far NCD Interleave : 0        Far NCD Fast     : 0
Near HEC Interleave : 0        Near HEC Fast     : 0
Far HEC Interleave : 0        Far HEC Fast     : 0
Near OCD Interleave : 0        Near OCD Fast     : 0
```

Verbose Mode Off

```
Near SEF          : 0          Near LOS          : 0
Far SEF           : 0          Far LOS           : 0
Near FEC Interleave : 0        Near FEC Fast     : 0
Far FEC Interleave : 0        Far FEC Fast     : 0
Near CRC Interleave : 0        Near CRC Fast     : 0
Far CRC Interleave : 1        Far CRC Fast     : 0
Near NCD Interleave : 0        Near NCD Fast     : 0
Far NCD Interleave : 0        Far NCD Fast     : 0
Near HEC Interleave : 0        Near HEC Fast     : 0
Far HEC Interleave : 0        Far HEC Fast     : 0
Near OCD Interleave : 0        Near OCD Fast     : 0
```

Output field description

Field	Description
<i>NearSEF</i>	Count of near-end severely errored frame defects.
<i>NearLOS</i>	Count of near-end loss of signal defects.
<i>FarSEF</i>	Count of far-end severely errored frame defects.
<i>FarLOS</i>	Count of far-end loss of signal defect.
<i>NearFECInterleave</i>	Count of near-end Reed-Solomon forward error corrections for the interleaved data stream.
<i>NearFECFast</i>	Count of near-end Reed-Solomon forward error corrections for the fast data stream.
<i>FarFECInterleave</i>	Count of far-end Reed-Solomon forward error corrections for the interleaved datastream.
<i>FarFECFast</i>	Count of far-end Reed-Solomon forward error corrections for the fast data stream.
<i>NearCRCInterleave</i>	Count of CRC near-end (cyclic redundancy check) anomalies for the interleaved datastream.

<i>NearCRCFast</i>	Count of near-end CRC (cyclic redundancy check) anomalies for the fast data stream.
<i>FarCRCInterleave</i>	Count of CRC far-end (cyclic redundancy check) anomalies for the interleaved datastream.
<i>FarCRCFast</i>	Count of far-end CRC (cyclic redundancy check) anomalies for the fast data stream.
<i>NearNCDInterleave</i>	Count of near-end no cell delineation for the interleaved data stream.
<i>NearNCDFast</i>	Count of near-end no cell delineation for the fast data stream.
<i>FarNCDInterleave</i>	Count of far-end no cell delineation for the interleaved data stream.
<i>FarNCDFast</i>	Count of far-end no cell delineation for the fast data stream.
<i>NearHECInterleave</i>	Near-end header error check counter for the interleaved data stream.
<i>NearHECFast</i>	Near-end header error check counter for the fast data stream.
<i>FarHECInterleave</i>	Far-end header error check counter for the interleaved data stream.
<i>FarHECFast</i>	Far-end header error check counter for the fast data stream.
<i>NearOCDInterleave</i>	Count of near-end out of cell delineation for the interleaved data stream.
<i>NearOCDFast</i>	Count of near-end out of cell delineation for the fast data stream.

Caution

None.

References❖ `reset dsl stats cntrs` command**3.120 get dsl stats curr****Description**

Get DSL current performance data.

Command Syntax`get dsl stats curr`**Parameters**

None.

Mode

User

Example

\$ get dsl stats curr

Output

Verbose mode on

```
No. of 15 Min. Valid Data Intervals      : 5
No. of 15 Min. Invalid Data Intervals    : 1
Current 15 Min. Elapsed Time (MM:SS)     : 5:10
Current 15 Min. Errored Seconds           : 0
Current 15 Min. Sev Errored Seconds      : 0
Current 15 Min. Unavailable Seconds       : 0
Current Day Elapsed Time (HH:MM:SS)      : 0:80:10
Current Day Errored Seconds               : 0
Current Day Sev Errored Seconds           : 0
Current Day Unavailable Seconds           : 0
Previous Day Monitored Time (HH:MM:SS)   : 0:0:0
Previous Day Errored Seconds              : 0
Previous Day Sev Errored Seconds          : 0
Previous Day Unavailable Seconds          : 0
```

Verbose Off

```
No. of 15 Min. Valid Data Intervals      : 5
No. of 15 Min. Invalid Data Intervals    : 0
Current 15 Min. Elapsed Time (MM:SS)     : 5:10
Current 15 Min. Errored Seconds           : 0
Current 15 Min. Unavailable Seconds       : 0
Current Day Elapsed Time (HH:MM:SS)      : 0:80:10
Current Day Errored Seconds               : 0
Current Day Unavailable Seconds           : 0
Previous Day Monitored Time (HH:MM:SS)   : 0:0:0
Previous Day Errored Seconds              : 0
Previous Day Unavailable Seconds          : 0
```

Output Field Description

Field	Description
<i>No. of 15 Min. Valid Data Intervals</i>	The number of previous 15-minute intervals for which data was collected.
<i>No. of 15 Min Invalid Data Interval</i>	The number of intervals in the range from 0 to the value of "No. of 15 Min. Valid Data Intervals" for which no data is available. This value will typically be zero except in cases where the data for some intervals are not available
<i>Current 15 Min. Elapsed Time (MM:SS)</i>	Total elapsed time in this interval.
<i>Current 15 Min. Errored Seconds</i>	Count of errored seconds in the current 15-minute interval.
<i>Current 15 Min. Unavailable Seconds</i>	Count of unavailable seconds in the current 15-minute interval.
<i>Current Day Elapsed Time (HH:MM:SS)</i>	Time elapsed since the beginning of the current 1-day interval.
<i>Current Day Errored Seconds</i>	Count of errored seconds in the current 1-day interval.
<i>Current Day Unavailable Seconds</i>	Count of unavailable seconds in the current 1-day interval.
<i>Previous Day Monitored Time (HH:MM:SS)</i>	The amount of time in the previous 1-day interval over which the performance monitoring information is actually counted.
<i>Previous Day Errored Seconds</i>	Count of errored seconds in the previous 1-day interval.
<i>Previous Day Unavailable Seconds</i>	Count of unavailable seconds in the previous 1-day interval.
<i>Current 15 Min. Sev Errored Seconds</i>	Count of severely errored seconds in the current 15-minute interval.
<i>Current Day Sev Errored Seconds</i>	Count of severely errored seconds in the current 1-day interval
<i>Previous Day Sev Errored Seconds</i>	Count of severely errored seconds in the previous 1-day interval

Caution

None.

References

❖ `get dsl stats hist` command

3.121 `get dsl stats flrs`

Description

Use this command to get DSL statistics failures.

Command Syntax

```
get dsl stats flrs
```

Parameters

None.

Mode

Super User, User

Example

```
$ get dsl stats flrs
```

Output

Verbose mode on/off

```
Local LOS Fail : 10      Remote LOS Fail : 30
Local SEF Fail : 20      Remote SEF Fail : 50
Local NCD Fail : 5       Remote NCD Fail : 10
Local LCD Fail : 15      Remote LCD Fail : 30
```

Output Field Description

Field	Description
<i>Local LOS Fail</i>	The count of near-end loss of signal. A DSL failure will occur if this counter surpasses 127.
<i>Remote LOS Fail</i>	The count of far-end, loss of signal. A DSL failure will occur if this counter surpasses 127.
<i>Local SEF Fail</i>	The count of near-end severely errored frames. A DSL failure will occur if this counter surpasses 127
<i>Remote SEF Fail</i>	The count of far-end, severely errored frames. A DSL failure will occur if this counter surpasses 127.
<i>Local NCD Fail</i>	The count of near-end, no cell delineation for data stream. Counts until in sync for the first time .A DSL failure will occur if this counter surpasses 127
<i>Remote NCD Fail</i>	The count of far-end, no cell delineation for data stream. Counts until in sync for the first time. A DSL failure will occur if this counter surpasses 127
<i>Local LCD Fail</i>	The count of near-end, loss of cell delineation for data stream. Counts loss of cell delineation after being in sync. A DSL failure will occur if this counter surpasses 127
<i>Remote LCD Fail</i>	The count of far-end, loss of cell delineation for data stream. Counts loss of cell delineation after being in sync. A DSL failure will occur if this counter surpasses 127

Caution

None.

References

❖ *reset dsl stats flrs* command

3.122 get dsl stats hist

Description

Get DSL history (previous intervals) performance data

Command Syntax

```
get dsl stats hist [sintrvl start-interval-number] [nintrvl num-of-intervals]
```

Parameters

Name	Description
<i>sintrvl start-interval-number</i>	First interval number from which data is to be displayed. Type: Optional Valid values: 1 to 96 Default value: 1
<i>nintrvl num-of-intervals</i>	Number of intervals for which data is to be displayed. Type: Optional Valid values: 1 to 96 Default value: 12

Mode

User

Example

```
$ get dsl stats hist sintrvl 10 nintrvl 3
```

Output

Verbose mode on

```
IntrvlNo  ErroredSecs  SevErroredSecs  UnavailSecs  
Valid Data
```


```
10        2           1           0  
Valid
```

```
11        0           0           0  
Valid
```

```
12          0          0          0
Invalid
```

Verbose Off

```
IntrvlNo  ErroredSecs  SevErroredSecs  UnavailSecs
Valid Data
```

```
-----
```

```
10          2          1          0
Valid
```

```
11          0          0          0
Valid
```

```
12          0          0          0
Invalid
```

Output Field Description

Field	Description
<i>Intrvl No</i>	Performance history data interval number. Interval number 1 is the most recent previous interval. Interval number 96 is 24 hours ago.
<i>Errored Secs</i>	Count of errored seconds in this interval.
<i>Sev Errored Secs</i>	Count of severely errored seconds in this interval.
<i>Unavail Secs</i>	Count of unavailable seconds in this interval.
<i>Valid Data</i>	Indicates if the data for this interval is valid or invalid.

Caution

None.

References

❖ `get dsl stats curr` command

3.123 get eoa inf

Description

Use this command to get information on a particular eoa interface or on all the eoa interfaces.

Command Syntax

```
get eoa intf [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid eoa interfaces is displayed. Type: Optional Valid values: <i>eoas-0 - *</i> , etc.

Mode

Super-User, User

Example

```
$ get eoa intf ifname eoa-0
```

Output

```
IfName : eoa-0                               Interface Sec Type : public
Configured IP Address : 192.168.1.1          Mask : 255.255.255.0
Low IfName : aa15-0                          NAT Direction : None
Gateway : 172.25.12.1                        Droute : True
Oper Status : Down                           Admin Status : Up
UseDHCP : true
```

Output field description

Field	Description
<i>IfName</i>	The name of the interface for which information is being displayed.
<i>Configured IpAddress</i>	IP address assigned to the eoa interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>LowIfName</i>	Specifies the lower interface.
<i>NatDir</i>	This specifies the NAT direction which may be: <i>inside</i> , <i>outside</i> or <i>none</i> .
<i>OperStatus</i>	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>
<i>AdminStatus</i>	The desired state of the interface. It may be either <i>Up</i> or <i>Down</i>
<i>UseDhcp</i>	Whether or not a DHCP client is used to obtain the IP address for this interface from a DHCP server
<i>Droute</i>	Default Route
<i>Interface Sec Type</i>	Interface security type.

Caution

None.

References

- ❖ `create eoa intf` command
- ❖ `delete eoa intf` command
- ❖ `modify eoa intf` command
- ❖ `eoas stats` related commands
- ❖ `interface stats` related commands.

3.124 get ethernet intf

Description

Use this command to get information on a particular Ethernet interface or on all the interfaces.

Command Syntax

`get ethernet intf [ifname interface-name]`

Parameters

Name	Description
<code>ifname <i>interface-name</i></code>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid ethernet interfaces is displayed. Type: Optional Valid values: eth-0, veth-0 - *, veth-2, veth-3

Mode

Super-User, User

Example

`$ get ethernet intf ifname veth-0`

Output

```
Interface          : veth-0
Interface Sec Type : Public
Mask               : 255.255.255.0
Physical Interface : eth-0
Duplex             : half
Operational Status : Up
Configured IP Address : 192.168.1.1
UseDhcp            : False
Nat Direction      : None
Speed              : 10BT
Admin Status       : Up
```

Output field description

Field	Description
<i>Interface</i>	The name of the interface which has been created.
<i>Interface Sec Type</i>	Interface security type.
<i>Configured Ip Address</i>	IP address assigned to the Ethernet port.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>UseDhcp</i>	Local: IP address for this interface is obtained from a local DHCP server Remote: DHCP client is used to obtain the IP address for this interface from a remote DHCP server False: DHCP client is not used.
<i>Physical Interface</i>	Valid only in case of virtual interfaces i.e. the Type is not <i>eth</i> . It can only be <i>eth-0</i>
<i>Nat Direction</i>	This specifies the NAT direction which may be: <i>inside</i> , <i>outside</i> or <i>none</i> .
<i>Duplex</i>	The duplex mode used by the interface.
<i>Speed</i>	Line speed used by Ethernet interface
<i>Operational Status</i>	The actual/current state of the interface. It can be either <i>up</i> or <i>down</i>
<i>Admin Status</i>	The desired state of the interface. It may be either <i>up</i> or <i>down</i>

Caution

None.

References

- ❖ `create ethernet intf` command
- ❖ `delete ethernet intf` command
- ❖ `modify ethernet intf` command
- ❖ `ethernet stats` related commands
- ❖ `interface stats` related commands

3.125 get ethernet stats

Description

Use this command to get statistics on a particular Ethernet interface or on all the Ethernet interfaces.

Command Syntax

```
get ethernet stats [ifname interface-name]
```

Parameters

Name	Description
------	-------------

ifname <i>interface-name</i>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid ethernet interfaces should be displayed. Type: Optional Valid values: <i>eth-0, veth-0 - *</i>
-------------------------------------	--

Mode

Super-User, User

Example

```
$ get ethernet stats ifname eth-0
```

Output

```
If Name : eth-0
Align Error count : 0 FCS Error count : 0
Single Collisn Frame count : 0 Two Collisn Frame Count : 30
SQE Test Errors count : 2 Deferred Transaction count : 0
Late Collisn count : 0 Excess Collisn count : 0
Internal MAC Rx Errs count : 5 Internal MAC Tx Errs count : 0
Carrier Sense Errs count : 0 Frame Too Long count : 0
Tx count : 0 Rx count : 0
Control Pause count : 0 Total Collisn count : 0
```

Output field description

Field	Description
<i>If Name</i>	The interface name
<i>Align Error count</i>	This is a count of frames received on the interface that are not an integral number of octets in length and do not pass the FCS (Frame Check Sequence) check.
<i>FCS Error count</i>	This is a count of frames received on the interface that are an integral number of octets in length but do not pass the FCS check.
<i>Single Collision Frame count</i>	This is a count of successfully transmitted frames on the interface for which transmission is inhibited by exactly one collision.
<i>Two Collisn Frame Count</i>	This is a count of successfully transmitted frames on the interface for which transmission is inhibited by two collisions.
<i>SQE Test Errors count</i>	This is a count of times that the SQE TEST ERROR message is generated by the PLS sublayer for the interface. The SQE TEST ERROR message is defined in section 7.2.2.2.4 of ANSI/IEEE 802.3-1985 and its generation is described in section 7.2.4.6 of the same document. Ref. ANSI/IEEE Std 802.3-1985 Carrier Sense Multiple Access with Collision Detection Access Method and Physical Layer Specifications
<i>Deferred Transactions count</i>	This is a count of frames for which the first transmission attempt on the interface is delayed because the medium is busy
<i>Late Collisions count</i>	This is the number of times that a collision is detected on the interface later than 512 bit-times into the transmission of a packet

<i>Excess Collisions count</i>	This is a count of frames for which transmission on the interface fails due to excessive collisions
<i>Internal MAC Rx Errors count</i>	This is a count of frames for which reception on the interface fails due to an internal MAC sublayer receive error
<i>Internal MAC Tx Errors count</i>	This is a count of frames for which transmission on the interface fails due to an internal MAC sublayer transmit error
<i>Carrier Sense Errors count</i>	This is the number of times that the carrier sense condition was lost or never asserted when attempting to transmit a frame on the interface
<i>Frame Too Long</i>	This is a count of frames received on the interface that exceed the maximum permitted frame size
<i>Tx count</i>	Count of Ethernet packets transmitted.
<i>Rx count</i>	Count of Ethernet packets received.
<i>Control Paus count</i>	TBD
<i>Total Collision count</i>	This is a count of frame collisions.

Caution

None.

References

- ❖ *ethernet intf* related commands
- ❖ *interface stats* command

3.126 get fwl blacklist

Description

Use this command to get information on a blacklisted host

Command Syntax

```
get fwl blacklist [ip <ddd.ddd.ddd.ddd>]
```

Parameters

Name	Description
<i>ip</i> <i><ddd.ddd.ddd.ddd></i>	This specifies the IP address of the blacklisted host. Type: Optional Valid values : 0.0.0.0 - 255.255.255.255

Mode

User

Example

```
$ get fw1 blacklist
```

Output

Verbose Mode on:

```
IP Address      Blacklist Reason  RuleId  Time
Left(sec)

-----
--

172.25.7.8      Ping of Death     1        20

172.25.45.7     Ping of Death     2        10
```

Verbose Mode off:

```
IP Address      Blacklist Reason  RuleId  Time
Left(sec)

-----
--

172.25.7.8      Ping of Death     1        20

172.25.45.7     Ping of Death     2        10
```

Output field description

Field	Description
<i>IP Address</i>	This specifies the IP address of the blacklisted host.
<i>Blacklist Reason</i>	This specifies the reason for blacklisting the host.
<i>RuleId</i>	This specifies the firewall rule id which caused the blacklisting.
<i>Time Left(sec)</i>	This is a count of successfully transmitted frames on the interface for which transmission is inhibited by exactly one collision.

Caution

None.

References

❖ `delete fwl blacklist` command.

3.127 `get fwl global`

Description

Use this command to get global information of IP Firewall

Command Syntax

`get fwl global]`

Parameters

None

Mode

User

Example

`$ get fwl global`

Output

Verbose Mode on:

```
Attack Protection      : Disable          Max Half Open
TCP Conn (%) : 25
```

```
DOS Protection      : Disable          Max ICMP Conn (%)
: 25
```

```
Blacklist Status      : Enable          Max Single Host
Conn(%): 100
```

```
Blacklist Period (min): 10          Min Log Time(min)
:10
```

```
Log Destination      : Email
```

```
E-Mail 1              : xyz@hotmail.com
```

```
E-Mail 2              : pqr@excite.com
```

```
E-Mail 3              : abc@hotmail.com
```

Verbose Mode off:

```
Attack Protection      : Disable      Max Half Open
TCP Conn (%) : 25

DOS Protection        : Disable      Max ICMP Conn
(%) : 25

Blacklist Status      : Enable      Max Single Host
Conn(%) : 100

Blacklist Period (min) : 10      Min Log Time (min)
:10

Log Destination       : Email

E-Mail 1              : xyz@hotmail.com

E-Mail 2              : pqr@excite.com

E-Mail 3              : abc@hotmail.com
```

Output field description

Field	Description
<i>Attack Protection</i>	This specifies the status of attack protection in firewall.
<i>DOS Protection</i>	This specifies the status of DOS protection in firewall.
<i>Blacklist Status</i>	This specifies the status of Blacklist protection in firewall.
<i>Blacklist Period (min)</i>	It specifies the duration to blacklist an attacking host.
<i>Min Log Time (min)</i>	It specifies the minimum time between logging of an individual attack.
<i>Max Half Open TCP Conn (%)</i>	It specifies the % of total connections that can be in a TCP half open state.
<i>Max ICMP Conn (%)</i>	It specifies the % of total connections that can be ICMP connections.
<i>Max Single Host Conn (%)</i>	It specifies % of connections from a single host.
<i>Log Destination</i>	This specifies the destination type for firewall logs.
<i>E-Mail 1</i>	This field specifies the email address of the firewall administrator1
<i>E-Mail 2</i>	This field specifies the email address of the firewall administrator2
<i>E-Mail 3</i>	This field specifies the email address of the firewall administrator3

Caution

None.

References

❖ *modify fw1 global* command.

3.128 get fw1 stats

Description

Use this command to get firewall statistics.

Command Syntax

get fw1 stats

Parameters

None

Mode

User, Super-User

Example

\$ get fw1 stats

Output

Verbose Mode on/off

Sessions Used : 13 ICMP Sessions : 3

Half Open TCP Sessions: 10

Attack type	Time Stamp at last log	After Log
Total		

(count)	(Day Mon date HH:MM:SS YYYY)	(count)
---------	------------------------------	---------

Tear Drop 12	Tue Jan 01 01:00:06 2002	10
Ping of death 12	Wed Jan 02 02:04:06 2002	10
IP Spoof 15	Thu Jan 03 03:04:06 2002	12
Land Attack 14	Fri Jan 04 02:00:06 2002	13
TCP SYN DOS 19	Fri Jan 04 03:04:06 2002	15
ICMP DOS 4	Sat Jan 06 02:04:06 2002	2
Sngl host DOS 8	Sun Jan 07 01:01:06 2002	6
Smurf Attack 9	Mon Jan 08 02:03:07 2002	6
Frag Scan 12	Tue Jan 01 01:00:06 2002	10
TCP Sess Scan 12	Wed Jan 02 02:04:06 2002	10
TCP SYN ACK Scan 15	Thu Jan 03 03:04:06 2002	12
TCP ACK Scan 14	Fri Jan 04 02:00:06 2002	13
TCP FIN Scan 19	Fri Jan 04 03:04:06 2002	15
TCP RST Scan 4	Sat Jan 06 02:04:06 2002	2
TCP NULL Scan 8	Sun Jan 07 01:01:06 2002	6
TCP XMAS Scan 9	Mon Jan 08 02:03:07 2002	4
UDP Scan 8	Sun Jan 07 01:01:06 2002	7

Output field description

Field	Description
<i>Sessions Used</i>	This specifies the number of sessions currently used.
<i>ICMP Sessions</i>	This specifies the number of ICMP sessions currently created
<i>Half Open TCP Sessions</i>	This specifies the number of Half open TCP sessions currently created
<i>Attack type</i>	This specifies the type of attack.
<i>Time Stamp at last log</i>	This is the time stamp taken when last time logging was done.
<i>After Log</i>	This specifies the total number of attacks since last time logging was done.
<i>Total</i>	This specifies the total number of attacks of this type.

Caution

None.

References

❖ `reset fw1 stats` command.

3.129 get host info

Description

Use this command to get information about various IP sessions on the host

Command Syntax

`get host info [ip <ipaddress>]`

Parameters

Name	Description
<code>ip <ipaddress></code>	This parameter specifies the ip address of the host. Type: Optional Valid Values: valid ip address..

Mode

User, Super-User.

Example

```
$ get host info ip 102.11.11.11
```

Output

Verbose Mode on:

```
ipaddress                Session Used
-----
102.11.11.11             13
```

Output field description

Field	Description
<i>ipaddress</i>	This specifies the IP Address of host.
<i>Session Used</i>	This specifies the number of sessions currently used for this host.

Caution

None.

References

None.

3.130 get icmp stats

Description

Use this command to display ICMP statistics.

Command Syntax

```
get icmp stats
```

Parameters

None.

Mode

Super-User, User

Example**\$ get icmp stats****Output**

```

In Msgs           : 0           Out Msgs           : 0
In Errors         : 0           Out Errors         : 0
Dest Unreach Msgs Rcvd : 0       Dest Unreach Msgs Sent : 0
Time Exceeded Msgs Rcvd : 0       Time Exceeded Msgs Sent : 0
Param Problem Msgs Rcvd : 0       Param Problem Msgs Sent : 0
Source Quench Msgs Rcvd : 0       Source Quench Msgs Sent : 0
Redirect Msgs Rcvd  : 0           Redirect Msgs Sent   : 0
Echo Msgs Rcvd     : 0           Echo Msgs Sent       : 0
Echo Reply Msgs Rcvd : 0       Echo Reply Msgs Sent : 0
Timestamp Msgs Rcvd : 0           Timestamp Msgs Sent   : 0
Timestamp Rep Msgs Rcvd : 0       Timestamp Rep Msgs Sent : 0
Addr Mask Req Msgs Rcvd : 0       Addr Mask Req Msgs Sent : 0
Addr Mask Rep Msgs Rcvd : 0       Addr Mask Rep Msgs Sent : 0

```

Output field description

Field	Description
<i>In Msgs</i>	The total number of ICMP messages which the entity received
<i>Out Msgs</i>	The total number of ICMP messages which this entity attempted to send
<i>In Errors</i>	The number of ICMP messages which the entity received but determined as having ICMP-specific errors
<i>Out Errors</i>	The number of ICMP messages which this entity did not send due to problems discovered within ICMP such as a lack of buffers
<i>Dest Unreach Msgs Rcvd</i>	The number of ICMP Destination Unreachable messages received
<i>Dest Unreach Msgs Sent</i>	The number of ICMP Destination Unreachable messages sent
<i>Time Exceeded Msgs Rcvd</i>	The number of ICMP Time Exceeded messages received
<i>Time Exceeded Msgs Sent</i>	The number of ICMP Time Exceeded messages sent
<i>Param Problem Msgs Rcvd</i>	The number of ICMP Parameter Problem messages received.
<i>Param Problem Msgs Sent</i>	The number of ICMP Parameter Problem messages sent.
<i>Source Quench Msgs Rcvd</i>	The number of ICMP Source Quench messages received.
<i>Source Quench Msgs Sent</i>	The number of ICMP Source Quench messages sent
<i>Redirect Msgs Rcvd</i>	The number of ICMP Redirect messages received
<i>Redirect Msgs Sent</i>	The number of ICMP Redirect messages sent. For a host, this object will always be zero, since hosts do not send redirects

<i>Echo Msgs Rcvd</i>	The number of ICMP Echo (request) messages received
<i>Echo Msgs Sent</i>	The number of ICMP Echo (request) messages sent
<i>Echo Reply Msgs Rcvd</i>	The number of ICMP Echo Reply messages received.
<i>Echo Reply Msgs Sent</i>	The number of ICMP Echo Reply messages sent
<i>Timestamp Msgs Rcvd</i>	The number of ICMP Timestamp (request) messages received
<i>Timestamp Msgs Sent</i>	The number of ICMP Timestamp (request) messages sent
<i>Timestamp Rep Msgs Rcvd</i>	The number of ICMP Timestamp (reply) messages received
<i>Timestamp Rep Msgs Sent</i>	The number of ICMP Timestamp Reply messages sent
<i>Addr Mask Req Msgs Rcvd</i>	The number of ICMP Address Mask Request messages received
<i>Addr Mask Req Msgs Sent</i>	The number of ICMP Address mask Request messages sent
<i>Addr Mask Rep Msgs Rcvd</i>	The number of ICMP Address Mask Reply messages received
<i>Addr Mask Rep Msgs Sent</i>	The number of ICMP Address Mask Reply messages sent

Caution

None.

References

- ❖ *TCP* and *UDP* commands
- ❖ *get ip stats* command

3.131 get igmp intf

Description

Use this command to get information on an IGMP interface for a given interface or for all interfaces.

Command Syntax

get igmp intf [ifname <interface-name>]

Parameters

Name	Description
<i>ifname</i> < interface-name >	This identifies the interface on which IGMP related information is required. Type: Optional Valid values: eth-0, veth-0 - *, ppp-0 - * ..., eoa-0 - *,

usb-0, ipoa-0-*
Default value: none

Mode

Super-User, User

Example**\$ get igmp intf ifname eth-0****Output****Verbose Mode On**

```

IfName           : eth-0                Type           : Host
Version          : igmpv1              Query Interval(sec)
: 150
Query Max Resp Time(sec) : 10          Last Memb QueryIntvl(sec) : 2
Robustness       : 10                  Join Requests   : 10
Current Groups   : 8

```

Verbose Mode Off

```

IfName           : eth-0                Type           : Host
Version          : igmpv1              Query Interval(sec)
: 150
Query Max Resp Time(sec) : 10          Last Memb QueryIntvl(sec) : 2
Robustness       : 10                  Join Requests   : 10
Current Groups   : 8

```

Output field description

Field	Description
<i>Query Interval(sec)</i>	This is the periodic interval at which host-query messages (queries) are transmitted on this interface
<i>Version</i>	This field specifies the version of IGMP.
<i>Query Max ResponseTime(sec)</i>	This field specifies the query max response time (in secs)
<i>Last Memb QueryIntvl(sec)</i>	This field specifies the Last Member Query Interval (in secs).
<i>Join Requests</i>	This is the number of times a group membership has been added to this interface
<i>Current Groups</i>	This is the current number of entries for this interface in the IGMP Group Table.

Caution

None.

References

- ❖ `delete igmp intf` command
- ❖ `get igmp groups` command
- ❖ `create igmp intf` command

3.132 get igmp groups

Description

Use this command to list information on all IP multicast groups.

Command Syntax

```
get igmp groups [grpaddr <ddd.ddd.ddd.ddd>]  
[ifname <interface-name>]
```

Parameters

Name	Description
<i>Grpaddr</i> <ddd.ddd.ddd.ddd>	This is the IP multicast group address for which information is required. Type: Optional
<i>ifname</i> <interface-name>	This identifies the interface for an IP multicast group for which information is required. Type: Optional

Mode

Super-User, User

Example

```
$ get igmp groups grpaddr 224.25.2.1 ifname eth-0
```

Output

Verbose Mode On

```
Group Address  IfName  Expiry Time (sec)  
-----  
224.25.2.1    eth-0    200
```

Verbose Mode Off

```
Group Address  IfName  Expiry Time (sec)  
-----  
224.25.2.1    eth-0    200
```

Output field description

Field	Description
<i>Group Address</i>	This is the IP multicast group address for which information is required.
<i>Ifname</i>	This identifies the interface for an IP multicast group for which information is required.
<i>Expiry Time (sec)</i>	The minimum amount of time remaining before this entry will be aged out.

Caution

None.

References

- ❖ `delete igmp intf` command
- ❖ `get igmp intf` command
- ❖ `create igmp intf` command.

3.133 get ilmi access protocol

Description

Use this command to get the protocol which has been configured by ILMI based auto configuration for a particular ATM VC

Command Syntax

```
get ilmi access protocol [ifname interface-name] [vpi vpi- num]
[vci vci-number]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the ATM port for the VC(s) for which the access protocol is to be displayed. In case the field is not specified, then the information for all configured VCs is displayed. Type: Optional Valid values: <i>atm-0</i> .
<i>vpi vpi-number</i>	VPI of the VC(s) for which the access protocol is to be displayed. This can be specified only if <i>ifname</i> has also been specified. Type: Optional Valid values: 0-255 Default value: 0
<i>vci vci-number</i>	VCI of the VC for which the access protocol is to be displayed. This can be specified only if <i>ifname</i> and <i>vpi</i> have also been specified. Type: Optional

	Valid values: 0-65535 Default value: 16
--	--

Mode

Super-User, User

Example

```
$ get ilmi access protocol ifname atm-0 vpi 10 vci 5
```

Output

```
Interface          : atm-0          VPI          : 10
VCI                : 5              Access Protocol : PPPoA
```

Output field description

Field	Description
<i>Interface</i>	The ATM port of the VC for which information is being displayed.
<i>VPI</i>	VPI of the VC for which information is being displayed.
<i>VCI</i>	VCI of the VC for which information is being displayed.
<i>Access Protocol</i>	Protocol which has been configured by ILMI based auto configuration for the shown VC.

Caution

None

References

None.

3.134 get ilmi intf

Description

Use this command to get ILMI based auto configuration information on a particular ATM port or on all ATM ports.

Command Syntax

```
get ilmi intf [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	It specifies the ATM port for which ILMI based auto configuration information is desired. In case the field is not specified, then the information for all valid ATM ports will be displayed. Type: Optional Valid values: <i>atm-0</i> .

Mode

Super-User, User

Example

```
$ get ilmi intf ifname atm-0
```

Output

```
Interface           : atm-0
Status              : Enable
VPI                 : 10
VCI                 : 5
Timeout(sec)       : 3
Keep Alive (sec)   : 5
Max Retries        : 11
Version            : 4.0
```

Output field description

Field	Description
<i>Interface</i>	It specifies the ATM port for which ILMI based auto configuration information is being shown.
<i>Status</i>	Whether ILMI based auto configuration is enabled or not on this interface.
<i>VPI</i>	VPI to be used for ILMI SNMP message exchanges
<i>VCI</i>	VCI to be used for ILMI SNMP message exchanges
<i>Timeout</i>	Timeout value for SNMP Get/ Set messages exchanged between peer Interface Management Entities (IMEs).
<i>Keep Alive</i>	The time-interval, ILMI should use to poll for peer ILMI's availability.
<i>Max Retries</i>	Number of times ILMI should retry before declaring ILMI connectivity as lost.
<i>Version</i>	The version of ILMI

Caution

None.

References

- ❖ `create ilmi intf` command
- ❖ `modify ilmi intf` command

- ❖ `modify ilmi trigger` command
- ❖ `trigger ilmi` command
- ❖ `get ilmi access protocol` command

3.135 `get interface stats`

Description

Use this command to view statistics for one interface or all the interfaces.

Command Syntax

`get interface stats [ifname interface-name]`

Parameters

Name	Description
<code>ifname interface-name</code>	This uniquely identifies the Interface whose information is to be retrieved. If this is not specified then information for all interfaces is displayed. Type: Optional Valid values: <code>aal5-0 - *</code> , <code>eth-0</code> , <code>veth-0 to veth-3</code> , <code>ppp-0 - *</code> , <code>atm-0</code> , <code>eoal-0 - *</code> , <code>dsl</code> , <code>dsl1</code> , <code>dslf</code> , <code>usb-0</code> , <code>ipoa-0-*</code> - , <code>/2t-*</code>

Mode

Super-User, User

Example

```
$ get interface stats ifname eth-0
```

Output

```
Interface           : atm-0
Description         : atm-0
Type                : ATM           Mtu                : 48
Bandwidth           : 1696000       Phy Addr           :
00:00:00:00:00:00
Admin Status        : Up           Operational Status  : Up
Last Change(sec)    : 35          Time since Last Change(sec) : 3
In Octets           : 0             Out Octets         : 0
In Discards         : 0             Out Discards       : 0
In Errors           : 0             Out Errors         : 0
In Ucast Pkts       : 0             Out Ucast Pkts     : 0
Non-Ucast Pkts      : 0             Out Non-Ucast Pkts : 0
Out Q Len           : 0             Unknown Prot Pkts  : 0
```

Output field description

Field	Description
<i>Interface</i>	This uniquely identifies the Interface whose information is being displayed. It may be: aal5-0 - *, eth-0, veth-0 to veth-3, ppp-0 - *, atm-0, dsl, dsli, dsli, usb-0, be l2t-*, ipoa-0-*
<i>Description</i>	This is general information about the interface.
<i>Type</i>	The type of interface, distinguished according the physical/link/ network protocol immediately below the IP layer. It may be: ATM, ETHERNET, PPP, AAL5, IPOA, TUNNEL
<i>Mtu</i>	The size (in bytes) of the largest IP datagram which can be sent/ received on this interface
<i>Bandwidth</i>	The current bandwidth of the interface in bps
<i>Phy Addr</i>	Interface's address immediately below the IP layer
<i>Admin Status</i>	This is the Desired state of the interface. It may be: <i>Up, Down</i>
<i>Operational Status</i>	This is the current operational state of the interface. It may be: <i>Up, Down</i>
<i>Last Change</i>	Value of System UpTime (in seconds) at the time the interface entered its current operational state.
<i>Time since Last Change (sec)</i>	Value of time (in seconds), since last status change of the interface.
<i>In Octets</i>	The total number of octets received on the interface, including the framing characters
<i>Out Octets</i>	The total number of octets transmitted out of the interface including framing characters
<i>In Discards</i>	The number of inbound packets which were discarded though no errors were detected
<i>Out Discards</i>	The number of outbound packets chosen to be discarded even though there were no errors.
<i>In Errors</i>	The number of inbound packets which were not delivered to upper layers because of errors.
<i>Out Errors</i>	The number of outbound packets chosen to be discarded because there were errors
<i>In Ucast Pkts</i>	The number of unicast packets delivered to a higher layer protocol.
<i>Out Ucast Pkts</i>	The total number of packets requested to be sent to unicast addresses, by upper layer protocols.
<i>Non-Ucast Pkts</i>	The total number of packets requested to be sent to non-unicast addresses, by upper layer protocols.
<i>Out Non-Ucast Pkts</i>	The total number of packets requested to be sent to non-unicast addresses, by upper layer protocols
<i>Out Q Len</i>	The length of the output packet Q (in packets.)
<i>Unknown Prot Pkts</i>	The number of packets received via the interface which were discarded because of an unknown or unsupported protocol.

Caution

None.

References

❖ `get ip stats` command

3.136 get ip address

Description

Use this command to display either the full IP address table or a single entry in the address table.

Command Syntax

get ip address [ip ip-address]

Parameters

Name	Description
<i>ip ip-address</i>	IP Address whose information is to be displayed. If no IP address is specified then all entries in the address table are displayed. Type: Optional Valid values: 0.0.0.1- 255.255.255.255

Mode

Super-User, User

Example

\$ get ip address

Output

Ip Address	Mask	If Name	BCast Addr	MaxReasm
192.168.1.1	255.255.0.0	eth-0	1	65535
127.0.0.1	255.0.0.0	lo-0	1	65535

Output field description

Field	Description
<i>Ip Address</i>	The IP address to which this entry's addressing information pertains
<i>Mask</i>	The subnet mask associated with the IP address of this entry
<i>If Name</i>	The interface to which this entry is applicable. It may be: <i>eth-0</i> ,
<i>BCast Addr</i>	The value of the least significant bit in the IP broadcast address used for sending datagrams on the interface associated with the IP address of this entry
<i>MaxReasm</i>	The size of the largest IP datagram which this entity can re-assemble from incoming IP fragmented datagrams received on this interface

Caution

None.

References

- ❖ *ip stats* related commands
- ❖ *ip route* related commands
- ❖ *ip cfg* related commands
- ❖ *arp* related commands

3.137 get ip cfg

Description

Use this command to get information about IP Stack Configuration Parameters.

Command Syntax

get ip cfg

Parameters

None.

Mode

Super-User, User

Example

\$ get ip cfg

Output

```
Forwarding : Disabled  
TTL       : 64
```

Output field description

Field	Description
<i>Forwarding</i>	This indicates whether this entity is acting as an IP gateway in respect to the forwarding of datagrams received by, but not addressed to, this entity. It may be: <i>Enabled, Disabled</i>
<i>TTL</i>	The default value inserted into the Time-To-Live field of the IP header of datagrams originated at this entity, whenever this is not supplied by the transport layer protocol. Here it will always be <i>64</i> .

Caution

None.

References

- ❖ *modify ip cfg* command
- ❖ *ip stats* related commands
- ❖ *ip route* related commands
- ❖ *ip address* related commands
- ❖ *arp* related commands

3.138 get ipf global

Description

Use this command to get IP Filter global configuration.

Command Syntax

get ipf global

Parameters

None

Mode

User.

Example

get ipf global

Output

Verbose mode on:

```
Security Level      : None      DMZ Default Action  :  
Deny  
  
Public Default Action : Deny      Private Default Action :  
Accept
```

Verbose mode off:

Security Level : None DMZ Default Action : Deny
Public Default Action : Deny Private Default Action : Accept

Output Field description:

Field	Description
<i>Security Level</i>	This specifies the service protection level applied to the system.
<i>Public Default Action</i>	Specifies the default action when a packet does not match any of the Security rules on a public interface.
<i>Private Default Action</i>	Specifies the default action when a packet does not match any of the Security rules on a private interface.
<i>DMZ Default Action</i>	Specifies the default action when a packet does not match any of the Security rules on a DMZ interface.

Caution

None

References

3.139 get ipf rule entry

Description

This command is used for getting information of an IP filter rule.

Command Syntax

get ipf rule entry [ruleid rule-id]

Parameters

Name	Description
<i>ruleid rule-id</i>	An index given by the caller to identify the rule entry. Type: Optional Valid values: 1-4294967295

Mode

User.

Example

\$ get ipf rule entry ruleid 1

Output

Verbose Mode On

```

Rule id           : 1   Interface           : eth-0
Rule Admin status : Disable Rule Oper Status : Disable
In interface     : ALL   Direction         : Out
Security Level   : High   Blacklist Status  : Enable
Logging          : Disable Action           : Accept
Log Tag          : -
IP Frag Pkt      : Yes    IP Opt Pkt       : No
TCP Flag         : Syn    Store State      : Enable
Src Addr         : Equal   172.25.8.76
Dest Addr        : Range   172.25.8.70      172.25.8.90
Src Port         : Out Of Range 10          20
Dest Port        : Not Equal 3
ICMP Code        : Not Equal 10
ICMP Type        : Equal   unreachable
TransProt        : Equal   TCP
IP Pkt Size      : Less Than 10
TOD Rule         : Enable Between 01:02:30      02:01:30

```

Verbose Mode Off

```

Rule id           : 1   Interface           : eth-0
Rule Admin status : Disable Rule Oper Status : Disable
In interface     : ALL   Direction         : Out
Security Level   : High   Blacklist Status  : Enable
Logging          : Disable Action           : Accept
Log Tag          : -
IP Frag Pkt      : Yes    IP Opt Pkt       : No
TCP Flag         : Syn    Store State      : Enable
Src Addr         : Equal   172.25.8.76
Dest Addr        : Range   172.25.8.70      172.25.8.90
Src Port         : Out Of Range 10          20
Dest Port        : Not Equal 3
ICMP Code        : Not Equal 10
ICMP Type        : Equal   unreachable
TransProt        : Equal   TCP
IP Pkt Size      : Less Than 10
TOD Rule         : Enable Between 01:02:30      02:01:30

```

Output field description

Field	Description
<i>Rule id</i>	The index given by the caller to identify the rule entry.
<i>Rule Admin Status</i>	Specifies the administrative status of the rule entry.
<i>Interface</i>	Specifies the IP-enabled physical interface to be associated to this rule. <i>All</i> indicates that rule is to be associated to all interfaces.
<i>In Interface</i>	Specifies the input interface ID which may be used to dictate the rules like deny/accept all traffic from a specific interface. So, this field can be specified only if direction is <i>out</i> .

Direction	Specifies the direction of Data flow on which filtering is to be applied.
Action	Specifies the action to be taken when a packet matches a rule.
Logging	This flag controls the logging of matched packets. Each log will contain IP Header and TCP/UDP header or ICMP fields, if available.
Log Tag	This specifies the Filter logging tag, which will be added to all the logs generated due to the rule
Src Addr	This field specifies the matching criteria for source IP Address along with the source IP Address value and the destination IP Address value. The source or destination or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
Dest Addr	This field specifies the matching criteria for destination IP Address along with the start destination IP Address value and end destination IP Address value. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
Src Port	This field specifies the matching criteria for source port along with the start of src port and the end of src port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcst.
Dest Port	This field specifies the matching criteria for destination Port along with the start dest port and the end dest port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcst.
ICMP Code	This field specifies the matching criteria for ICMP code value along with the code field in ICMP header in case of ICMP packets.
ICMP Type	This field specifies the matching criteria for ICMP Type along with the type field in ICMP header in case of ICMP packets.
TransProt	This field specifies the matching criteria for transport protocol field along with the transport layer protocol number as per IANA.
TCP Flag	<i>This specifies filtering criteria for TCP packet types.</i>
Store State	This specifies whether stateful filtering is done or not
Security Level	This specifies the association of rule with system wide service protection level.
Blacklist Status	This specifies whether source of the packet should be put in blacklist if it matches with the rule. It will be applicable to deny kind of rules
IP Frag Pkt	This specifies whether the rule is applicable to fragmented packets, non fragmented packets or in both cases.
IP Opt Pkt	This specifies whether the rule is applicable to IP packet with or without IP options or in both cases.
IP Pkt Size	This field specifies the matching criteria for IP Pkt Size along with IP packet filtering attribute . It should be compared against the packet size value in IP header.
ToD Rule	This field specifies whether the rule should be applied for the duration specified."Enable Between" indicates that the rule is applied between the specified time duration."Disable Between" indicates that rule is not applicable between the specified duration, but it is applicable for remaining time of the day.
Rule Oper Status	A rule will be operationally enabled if and only if it is administratively enabled, its Time of Day status as per current time is Enable, and if the rule's security level matches the global security level as shown by get ipf global.

Caution

None.

References

- ❖ `create ipf rule entry` command
- ❖ `delete ipf rule entry` command
- ❖ `modify ipf rule entry` command

3.140 get ipf rule stats

Description

This command is used for getting IP filter rule statistics for a rule.

Command Syntax

`get ipf rule stats [ruleid rule-id]`

Parameters

Name	Description
<code>ruleid rule-id</code>	The index given by the caller to identify the rule entry. Type: Optional Valid values: 1-4294967295

Mode

User.

Example

`$ get ipf rule stats`

Output

Verbose Mode On

```
Rule id           Packets count
-----
1                 4
```

Verbose Mode Off

```
Rule id           Packets count
-----
1                 4
```



```

If-Name-1           : eth-0           If-Name-2           :
ppp-0
IP Address-1       : 172.25.8.9       IP Address-2       : 202.1.1.10
Port 1             : 1245           Port 2             : 23
IN RuleID on IfName-1 : 10           IN RuleID on IfName-2 : 20
IN Action on IfName-1 : accept       IN Action on IfName-2 : accept
OUT RuleID on IfName-1 : 30           OUT RuleID on IfName-2 : 40
OUT Action on IfName-1 : accept       OUT Action on IfName-2 : accept
    
```

Output field description

Field	Description
<i>Session Index</i>	This is the index for display of session information
<i>Time To Expire (sec)</i>	Time remaining before the session is deleted.
<i>Protocol</i>	This field specifies the protocol type for which session is created.
<i>IfName-1</i>	This specifies the first physical interface associated with this session. This is the interface due to which session creation is initiated.
<i>IfName-2</i>	This specifies the second physical interface associated with this session. This interface is the one on which packet is routed.
<i>IP Address-1</i>	This specifies the IP address associated with ifName-1. If the packet originates from ifName-1, then this will be the source IP address and if the packet is arriving at ifName-1, then this will be the destination address.
<i>IP Address-2</i>	This specifies the IP address associated with ifName-2. If the packet originates from ifName-2, then this will be the source IP address and if the packet is arriving at ifName-2, then this will be the destination address.
<i>Port-1</i>	This specifies port associated with IP Address-1. If the packet originates from ifName-1, then this will be the source port and if the packet is arriving at ifName-1, then this will be the destination port.
<i>Port-2</i>	This specifies port associated with IP Address-2. If the packet originates from ifName-2, then this will be the source port and if the packet is arriving at ifName-2, then this will be the destination port.
<i>IN RuleID on IfName-1</i>	This specifies the matching rule id (i.e. the first rule that matches the packet selectors) on IfName-1 for incoming direction.
<i>IN RuleID on IfName-2</i>	This specifies the matching rule id on interface IfName-2 for incoming direction.
<i>IN Action on IfName-1</i>	This specifies the action defined in IN RuleID on IfName-1.
<i>IN Action on IfName-2</i>	This specifies the action defined in IN RuleID on IfName-2.
<i>OUT RuleID on IfName-1</i>	This specifies the matching rule id on interface IfName-1 for outgoing direction.
<i>OUT RuleID on IfName-2</i>	This specifies the matching rule id on interface IfName-2 for outgoing direction.
<i>OUT Action on IfName-1</i>	This specifies the action defined in OUT RuleID on IfName-1.
<i>OUT Action on IfName-2</i>	This specifies the action defined in OUT RuleID on IfName-2.

Caution

Session information will be displayed only if IP filter is enabled.

References

❖ `reset ipf session` command

3.142 get ipf stats

Description

Use this command to get global statistics of IP filter.

Command Syntax

`get ipf stats`

Parameters

None.

Mode

User.

Example

`$ get ipf stats`

Output

Verbose Mode On

Packets count : 0

Verbose Mode Off

Packets count : 0

Output field description

Field	Description
<code>Packets count</code>	This field tells the total packets given to the IP filter.

Caution

None.

References

- ❖ `reset ipf stats` command
- ❖ `get ipf rule stats` command
- ❖ `reset ipf rule stats` command

3.143 get ipoa intf

Description

This command is used for getting information on a particular IPoA interface or on all the IPoA interfaces.

Command Syntax

`get ipoa intf [ifname interface-name]`

Parameters

Name	Description
	<p>This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid IPoA interfaces should be displayed.</p> <p>Type: Optional Valid values: <i>ipoa-0-*</i></p>

Mode

Super-User, User.

Example

```
$ get ipoa intf ifname ipoa-0
```

Output

```
IfName           : ipoa-0           UseDHCP
: true

Type             : non1577         Interface Sec Type:
Public

Configured IP Address: 172.25.12.74  Mask           :
255.255.0.0

DRoute           : False          Gateway        :
0.0.0.0

NAT Direction    : OUT            Oper Status    :
Down
```

Output field description

Field	Description
<i>If-Name</i>	The name of the IPoA interface.
<i>UseDHCP</i>	This specifies whether a DHCP client is used to obtain the IP address for this interface from a DHCP server, or not.
<i>Type</i>	This specifies the type of IPoA interface.
<i>Interface sec Type</i>	Interface security type
<i>Configured Ip Address</i>	IP address assigned to the IPoA interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>Droute</i>	Default Route
<i>Gateway</i>	Gateway IP address
<i>Nat Direction</i>	This specifies the NAT direction, which may be: <i>inside</i> , <i>outside</i> or <i>none</i> .
<i>Oper Status</i>	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>

Caution

None.

References

- ❖ `create ipoa intf` command
- ❖ `delete ipoa intf` command
- ❖ `show ipoa intf` command
- ❖ `show ipoa map` command
- ❖ `show ipoa map verbose` command

3.144 get ipoa map

Description

Use this command to get the association of IPoA (IP over ATM) interface with lower aal5 interfaces.

Command Syntax

```
get ipoa map [ifname interface-name]
```

Parameters

Name	Description
<i>Ifname interface-name</i>	The name of the IPoA interface for which the association with lower interface has to be deleted. Type: Mandatory Valid values: ipoa-0, ipoa-1 etc..
<i>Lowif low-interface-name</i>	This parameter specifies the lower interface (ATM VC interface) of the IPoA interface. Type: Mandatory Valid Values: aal5-0, aal5-1 etc..

Mode

Super-User.

Example

```
$ delete ipoa map ifname ipoa-0 lowif aal5-0
```

Output

Verbose mode on:

```
IfName      LowIfName    Peer IP Address
-----
ipa-0       aal5-0       172.25.1.130
```

Entry Deleted

Verbose mode off:

Entry Deleted

Output Field description:

Field	Description
<i>IfName</i>	The name of the IPoA interface for which the association with the lower interface has been deleted.
<i>LowIfName</i>	Specifies the lower (ATM VC) interface.
<i>Peer IP Address</i>	IP address of peer.

Caution

None

References:

3.145 get ip route

Description

Use this command to get the listing of all routing table entries or for a specific entry.

Command Syntax

get ip route [ip dest-ip-address] [mask net-mask]

Parameters

Name	Description
<i>ip dest-ip-address</i>	Destination IP address of the route which is to be displayed. If no IP address is specified then all known routes are displayed. Type: Optional Valid values: Any valid class A/B/C IP address
<i>mask net-mask</i>	The Mask of the destination IP Address. Type: Optional Valid values: 0.0.0.1 – 255.255.255.255

Mode

User, Super-User.

Example

```
$ get ip route ip 192.168.2.40 mask 255.255.255.0
```

Output

Destination	Mask	Gateway	If-name	RouteType	RouteOrig	Age(sec)
192.168.2.40	255.255.255.0	192.168.1.1	veth-0	IND	NET	0

Output field description

Field	Description
<i>Destination</i>	Destination IP address of this route
<i>Mask</i>	The Mask of the destination IP Address
<i>Gateway</i>	The IP address of the next hop for this route
<i>If-Name</i>	The local interface through which the next hop of this route will be reached
<i>Route Type</i>	The type of route. It may be: <i>Dir</i> (for Direct), <i>Ind</i> (for Indirect), or <i>inv</i> (for invalid route)
<i>Route Orig</i>	The routing mechanism through which this route was learned. It may be: <i>NET</i> (for Network Management), <i>LCL</i> (for Local), <i>RIP</i> , <i>ICMP</i> , <i>DYI</i> (Dynamic through Interface creation)
<i>Age</i>	The number of seconds since this route was last updated or otherwise determined to be correct

Caution

None.

References

- ❖ *create ip route* command
- ❖ *delete ip route* related commands
- ❖ *ip stats* related commands

- ❖ *ip cfg* related commands
- ❖ *ip address* related commands
- ❖ *arp* related commands

3.146 get ip stats

Description

Use this command to display the global statistics for the IP Layer.

Command Syntax

get ip stats

Parameters

None.

Mode

Super-User, User

Example

\$ get ip stats

Output

```

Rx Pkts count           : 10           Rx Hdr Errors count       : 0
Fwd Datagram count     : 0           Unknown Proto count      : 0
Rx Discards count      : 0           Rx Delivered count       : 10
Tx Requests count      : 10           Tx Discards count        : 0
Tx No Routes count     : 0           IP Reasm Req'd count     : 0
IP Reasm OK count      : 0           IP Reasm Failed count    : 0
IP Frag OK count       : 0           IP Frag Failed count     : 0
IP Frag Created count  : 0           Routing Reject count     : 0
In Addr Err count      : 0           Reasm Timeout(sec)      : 60

```

Output field description

Field	Description
<i>Rx Pkts count</i>	This defines number IP packets received
<i>Rx Hdr Errors count</i>	This defines number of IP packets received with header errors
<i>Fwd Datagram count</i>	This defines number of datagrams forwarded by it.
<i>Unknown Proto count</i>	This defines The number of locally-addressed datagrams received successfully but discarded because of an unknown or unsupported protocol
<i>Rx Discards count</i>	The number of input IP datagrams for which no problems were encountered to prevent their continued processing, but which were discarded. This does not include any datagrams discarded while awaiting reassembly.
<i>Rx Delivered count</i>	The total number of input datagrams successfully delivered to IP user-protocols (including ICMP)
<i>Tx Requests count</i>	The total number of IP datagrams which local IP user-protocols (including ICMP) supplied to IP in requests for transmission.

	This counter does not include any datagrams counted in Fwd Datagram.
<i>Tx Discards count</i>	The number of output IP datagrams for which no problem was encountered to prevent their transmission to their destination, but which were discarded. This counter would include datagrams counted in Fwd Datagram if any such packets met this (discretionary) discard criterion
<i>Tx No Routes count</i>	The number of IP datagrams discarded because no route could be found to transmit them to their destination
<i>IP Reasm Req'd count</i>	The number of IP fragments received which needed to be re-assembled at this entity.
<i>IP Reasm OK count</i>	The number of IP datagrams successfully re-assembled
<i>IP Reasm Failed count</i>	The number of failures detected by the IP re-assembly algorithm. This is not necessarily a count of discarded IP fragments since some algorithms (notably the algorithm in RFC 815) can lose track of the number of fragments by combining them as they are received.
<i>IP Frag OK count</i>	The number of IP datagrams that have been successfully fragmented at this entity.
<i>IP Frag Failed count</i>	The number of IP datagrams that have been discarded because they needed to be fragmented at this entity but could not be, e.g., because their Don't Fragment flag was set
<i>IP Frag Created count</i>	The number of IP datagram fragments that have been generated as a result of fragmentation at this entity
<i>Routing Reject count</i>	The number of IP datagrams discarded because no route could be found to transmit them to their destination.
<i>In Addr Err count</i>	This defines number of packets received with wrong address information
<i>Reasm Timeout</i>	The maximum number of seconds for which received fragments are held while they are awaiting reassembly at this entity.

Caution

None.

References

- ❖ *ip address* related commands
- ❖ *ip route* related commands
- ❖ *ip cfg* related commands
- ❖ *arp* related commands

3.147 get l2tp global config

Description

Use this command to to get l2tp tunnel global configuration.

Command Syntax

get l2tp global config

Mode

User, Super-User.

Example

```
$ get l2tp global config
```

Output

```
Response Timeout (secs) : 300
```

Output Field description:

Field	Description
<i>Response Timeout (secs)</i>	Defines the period of time (in secs) that a peer will wait for the response. A value of "Infinite" indicates an infinite wait.

Caution

None.

References

3.148 get l2tp global info

Description

Use this command to get L2TP global information.

Command Syntax

```
get l2tp global info
```

Mode

User, Super-User.

Example

```
$ get l2tp global config
```

Output

```
Proto Version: 0X200
```

```
Vendor Name : GlobespanVirata
```

Output Field description:

Field	Description
<i>Proto version</i>	First octet identifies the version, second the revision
<i>Vendor name</i>	This field identifies the Vendor name of the L2TP protocol stack.

Caution

None.

References

None

3.149 get l2tp session stats

Description

Use this command to get l2tp session status for a particular PPP/PPPoE session interface or on all l2tp sessions.

Command Syntax

```
get l2tp session stats [pppifname interface-name]
```

Parameters

Name	Description
------	-------------

<i>pppifname interface-name</i>	Identifies the PPP interface name from which PPP packets are being tunneled Type: Optional Valid values: ppp-0, ppp-*
<i>Vendor name</i>	This field identifies the Vendor name of the L2TP protocol stack.

Mode

User, Super-User.

Example

get l2tp session stats pppifname ppp-0

Output

Verbose Mode On/Off

```
PPP If Name      : ppp-0          Tunnel If Name: l2t-0
Session State    : connect       Sess FSM state:
established
Local Session Id : 100           Remote Session Id: 200
Tx Connect Speed : 10000        Rx Connect Speed: 10000
Bearer Type      : digital       Framing Type: sync
Phy Channel Id   : 12           Sequence State: local
Send Sequence Count: 999       Recv Sequence Count:
1000
Last Result code : 23           Last Error code: 22
ReAss Timeout Count: 0        Recv Out of Seq: 23
Last Start Time  : 02:03:02     Last Stop time:
03:02:02
Call S. No       : 2
DNIS             : 4392849
Calling Id       : 2000
SubAddress       : 100001
```

Pvt Grp Id : 1000234
Remote User Name : GlobespanVirata
Last Error Msg : Tunnel is being stopped.

Output Field description:

Field	Description
<i>PPP If Name</i>	The ifindex of the interface from which PPP packets are being tunneled.
<i>If Name</i>	This object identifies the session's associated L2TP tunnel ifIndex value.
<i>Call S. No</i>	This object defines the serial number that has been assigned to this session.
<i>Local Session Id</i>	This object contains the local assigned session identifier for this session.
<i>Remote Session Id</i>	This object contains the remote assigned session identifier for this session.
<i>Remote User Name</i>	This object identifies the peer session name on this interface.
<i>Session State</i>	This object contains the current state of the session.
<i>DNIS</i>	This object identifies the Dialed Number Information String that the LAC obtained from the network for the session.
<i>Tx Connect Speed</i>	This object returns the last known transmit baud rate for this session.
<i>Rx Connect Speed</i>	This object returns the last known receive baud rate for this session established.
<i>Bearer Type</i>	This object describes the bearer type of this session.
<i>Framing Type</i>	This object describes the framing type of this session.
<i>Phy Channel Id</i>	This object contains the physical channel identifier for the session.
<i>Sequence State</i>	This object defines which tunnel peers have requested payload sequencing.
<i>Send Sequence count</i>	This object contains the next send sequence number for this session.
<i>Recv Sequence count</i>	This object contains the next receive sequence number expected to be received on this session.
<i>Last Result code</i>	This object contains the last value of the result code as described in the Result Code AVP which caused the Session to disconnect.
<i>Last Error code</i>	This object contains the last value of the error code as described in the Result Code AVP that caused the Session to disconnect.

<i>Sess FSM state</i>	This object contains the current state of the session FSM.
<i>Reassembly Timeout Count</i>	This object returns the number of reassembly timeouts that have occurred for this session.
<i>Last Start Time</i>	This is the time stamp at which the session was started last.
<i>Last Stop time</i>	This is the time stamp at which the session was stopped last.
<i>Calling Id</i>	This object identifies the Calling Line ID that the LAC obtained from the network for the session.
<i>SubAddress</i>	This object identifies the Sub Address that the LAC obtained from the network for the session.
<i>Pvt Grp Id</i>	This object identifies the Private Group Identifier used for this tunneled session.
<i>Last Error Msg</i>	This object contains the last value of the optional message as described in the Result Code AVP which caused the session to disconnect.

Caution

None.

References

- ❖ `reset l2tp session stats` command

3.150 get l2tp tunnel config

Description

Use this command to to get information on a particular l2tp tunnel or on all l2tp tunnels.

Command Syntax

```
get l2tp tunnel config [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	Identifies the interface name for L2TP layer. Type: Optional Valid values: l2t-0-l2t-*

Mode

User, Super-User.

Example

```
$ get l2tp tunnel config ifname l2t-0
```

Output

Verbose mode on/off:

```
If Name           : l2t-0

Admin Status      : Up           Oper Status       : Up

Local IP-address  : 178.10.10.10  Remote IP-address :
178.10.11.10

Hello Interval    : 300         Idle Timeout      :
100

Max Retx Attempt  : 10           Max Retx Timeout  : 10

Initiator         : local       Payload Sequencing:
always

Authentication Type : simple   Transport         :
udpip

Control RWS       : 5

Shared Secret     : passwd

Local Host name   : titanium

Remote Host name  : Columbia

Entry Deleted
```

Output Field description:

Field	Description
<i>If-name</i>	Identifies the interface name for L2TP layer.
<i>Local IP-address</i>	This field specifies the address of the local endpoint of the tunnel
<i>Local Host name</i>	This field specifies the address of the local endpoint of the tunnel
<i>Remote IP-address</i>	This field specifies the address of the remote endpoint of the tunnel to which the tunnel is to be established.
<i>Admin Status</i>	This field specifies the adminstatus of the of the l2tp interface.
<i>Oper Status</i>	This field specifies the Operstatus of the of the l2tp interface.
<i>Remote Host name</i>	This field specifies the hostname of the remote endpoint of the tunnel to which the tunnel is to be established.
<i>Hello Interval</i>	Defines the interval (in sec) in which Hello packets are to be sent to the tunnel peer
<i>Idle Timeout</i>	Defines the period of time (in seconds) that an established tunnel with no sessions will wait before disconnecting the tunnel.
<i>Control RWS</i>	Defines the control channel receive window size
<i>Max Retx Timeout</i>	Defines the maximum retransmission timeout interval that the tunnel will wait before retransmitting a control packet that has not been acknowledged.
<i>Initiator</i>	This indicates whether the tunnel will be initiated locally or not.
<i>Payload Sequencing</i>	This object determines whether or not session payload packets will be requested to be sent with sequence numbers from tunnel peer's. The value never(2) indicates that L2TP will never initiate sequencing but will do sequencing if asked. The value always(3) indicates that L2TP will send the sequencing Required AVP during session establishment
<i>Authentication Type</i>	Describes how L2TP tunnel peers are to be authenticated
<i>Transport</i>	Defines the underlying transport media that is in use for this tunnel entry.
<i>Shared Secret</i>	Shared secret is used during the tunnel authentication phase of tunnel establishment if authtype is challenge
<i>Max Retx Attempt</i>	Defines the number of retransmissions, which the tunnel will attempt before assuming that the peer is no longer responding.

Caution

None.

References

3.151 get l2tp tunnel stats

Description

Use this command to get l2tp tunnel status and statistics for a particular tunnel interface or on all the l2tp tunnels.

Command Syntax

get l2tp tunnel stats [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	Identifies the interface name for L2TP layer. Type: Optional Valid values: l2t-0-l2t-*

Mode

User, Super-User.

Example

\$ get l2tp tunnel stats ifname l2t-0

Output

Verbose mode on/off:

```
If name           : l2t-0

Tunnel State      : idle      Tunnel FSM State: idle

Local Tunnel Id   : 2         Remote Tunnel Id: 3

Control Pkts Recv : 10       Remote RWS: 5

Control Recv ZLB  : 10       Remote IntialWindow: 2

Control Out of Seq : 20      Remote Bearer Cap: none

Control Out of Window : 20   Remote Framing Cap: sync

Control Send Packets : 20    Remote Proto Ver: 0200
```

```

Control Send ZLB      : 20          Number Ack Timeout : 100

Send Sequence        : 22          Recv Sequence: 26

Send Sequence Ack    : 23          Recv Sequence Ack: 24

Total Sessions       : 100         Total fail session: 2

Active Sessions      : 1000        Remote FirmwareRev: 03

Last Result code     : 23          Last Error code: 25

Last Start Time      : 03:04:02    Last Stop time: 04:05:02

Last Error Msg       : Tunnel is being stopped.

Remote Vendor name   : GlobespanVirata
    
```

Output Field description:

Field	Description
<i>ifname</i>	Identifies the interface name for L2TP layer.
<i>Tunnel State</i>	This field contains the current state of the control tunnel.
<i>Local Tunnel Id</i>	This object contains the local tunnel Identifier.
<i>Remote Tunnel Id</i>	This object contains the remote tunnel Identifier.
<i>Remote FirmwareRev</i>	This object contains the tunnel peer's firmware revision number
<i>Remote RWS</i>	This object contains the current remote peers receive window size.
<i>Remote Intial Window</i>	This object contains the initial remote peers receive window size as indicated by the tunnel peer during the tunnel establishment phase
<i>Remote Bearer Cap</i>	This object describes the Bearer Capabilities of the tunnel peer.
<i>Remote Framing Cap</i>	This object describes the Framing Capabilities of the tunnel peer.
<i>Control Packets Recv</i>	This object contains the number of control packets received on the tunnel.
<i>Control Recv ZLB</i>	This object returns a count of the number of Zero Length Body control packet that were received.
<i>Control Out of Seq</i>	This object returns a count of the number of control

	packets that were not received in the correct order (as per the sequence number) on this tunnel.
<i>Control Out of Window</i>	This object contains the number of control packets that were received outside of the offered receive window.
<i>Control Send Packets</i>	This object contains the number of control packets that were transmitted to the tunnel peer.
<i>ZLB Sent</i>	This object contains the number of Zero Length Body control packets transmitted to the tunnel peer.
<i>Number Ack Timeout</i>	This object returns a count of the number of control packet timeouts due to the lack of a timely acknowledgement from the tunnel peer.
<i>Remote Proto Ver</i>	This object describes the protocol version and revision of the tunnel peers implementation.
<i>Send Sequence</i>	This object contains the next send sequence number for the control channel.
<i>Send Sequence Ack</i>	This object contains the send sequence number that the tunnel peer has acknowledged for the control channel.
<i>Recv Sequence</i>	This object contains the next receive sequence number expected to be received on this control channel.
<i>Recv Sequence Ack</i>	This object contains the last receive sequence number that was acknowledged back to the tunnel peer for the control channel.
<i>Total Sessions</i>	This object contains the total number of sessions that this tunnel has successfully connected through to its tunnel peer since this tunnel was created.
<i>Total fail session</i>	This object contains the total number of sessions that were initiated but failed to reach the established phase.
<i>Active Sessions</i>	This object contains the total number of sessions in the established state for this tunnel.
<i>Last Result code</i>	This object contains the last value of the result code as described in the Result Code
<i>Last Error code</i>	This object contains the last value of the error code as described in the Result Code AVP which caused the tunnel to disconnect.
<i>Last Start Time</i>	This is the time stamp at which the tunnel was started last.
<i>Last Stop time</i>	This is the time stamp at which the tunnel was stopped last.
<i>Tunnel FSM State</i>	This field contains the current state of the control tunnel FSM.
<i>Last Error Msg</i>	This object contains the last value of the optional message as described in the Result Code AVP which caused the tunnel to disconnect
<i>Remote Vendor name</i>	This object identifies the vendor name of the peer's L2TP implementation.

Caution

None.

References

- ❖ `reset l2tp tunnel stats` command

3.152 get l2tp udp stats

Description

Use this command to get the l2tp udp statistics.

Command Syntax

`get l2tp udp stats [ifname interface-name]`

Parameters

Name	Description
<code>ifname interface-name</code>	Identifies the interface name for L2TP layer. Type: Optional Valid values: l2t-0-l2t-*

Mode

User, Super-User.

Example

```
$ get l2tp udp stats ifname l2t-0
```

Output

Verbose mode on/off:

```
If name      Peer Port      Local Port
```

```
l2t-0        1000           2000
```

Output Field description:

Field	Description
<i>If-name</i>	Identifies the interface name for L2TP layer.
<i>Peer port</i>	This object reflects the peer's UDP port number used for this tunnel.
<i>Local port</i>	This object reflects the local UDP port number that this tunnel is bound to.

Caution

None.

References

None

3.153 get l2wall cfg

Description

Use this command to get L2WALL configuration information.

Command Syntax

get l2wall cfg

Parameters

None

Mode

User, Super-User

Example

\$ get l2wall cfg

Output

Status : on Inactive Time(min) : 5

Output field description

Field	Description
<i>Status</i>	Status of the L2wall configuration.
<i>Inactive Time (min)</i>	Time since last recorded activity in minutes.

Caution

None

References

❖ `modify l2wall cfg`

3.154 get nat global

Description

Use this command to get NAT global info.

Command Syntax

`get nat global`

Parameters

None.

Mode

Super-User, User

Example

`$ get nat global`

Output

```
TCP Idle Timeout(sec): 86400          TCP Close Wait(sec) : 60
TCP Def Timeout(sec) : 60             UDP Timeout(sec)    : 300
ICMP Timeout(sec)    : 60             GRE Timeout (sec)   : 300
ESP Timeout(sec)     : 300            Default Nat Age(sec): 240
NAPT Port Start      : 40000          NAPT Port End       : 41023
Admin Status         : Disable
```

Output field description

Field	Description
<i>TCP Idle Timeout</i>	The Time out (in seconds) which is used to expire out Idle TCP Nat Translations
<i>TCP Close Wait</i>	The Wait time (in seconds) after which a TCP connection is closed
<i>TCP Def Timeout</i>	The default timeout (in seconds) in case of errors.
<i>UDP Timeout</i>	The time (in seconds) for UDP timeout
<i>ICMP Timeout</i>	The time (in seconds) for ICMP timeout
<i>GRE Timeout</i>	The time (in seconds) for GRE timeout
<i>ESP Timeout</i>	The time (in seconds) for ESP timeout
<i>Default Nat Age</i>	The default NAT Time Out (in seconds).
<i>NAPT Port Start</i>	The port value from which the port range can start

<i>NAPT Port End</i>	The port value at which the port range ends.
<i>Admin Status</i>	The current NAT Status. It may be: <i>Enable, Disable</i>

Caution

None.

References

- ❖ *modify nat global* command
- ❖ *nat rule status* related commands
- ❖ *nat rule stats* related commands
- ❖ *nat rule entry* related commands

3.155 get nat rule entry

Description

Use this command to get the full NAT Rule table or one entry.

Command Syntax

get nat rule entry [ruleid rule-id]

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the NAT rule, information pertaining to which is to be displayed. If this is not specified then information for all rules is displayed. Type: Optional Valid values: 1-4294967295

Mode

Super-User, User

Example

```
$ get nat rule entry ruleid 1
```

Output

```
Rule Id           : 1                Flavor           : NAPT
Interface        : ALL              Protocol         : ANY
Local Addr From  : 0.0.0.0          Local Addr To   : 0.0.0.0
Dest Addr From   : 0.0.0.0          Dest Addr to    : 0.0.0.0
Global Addr From : 0.0.0.0          Global Addr To  : 255.255.255.255
Dest Port From   : 0                Dest Port To    : 0
```

Local Port : 0

Output field description

Field	Description
<i>Rule Id</i>	This identifies the NAT rule, information pertaining to which is being displayed.
<i>Flavor</i>	This specifies the type of rule. It may be: <i>BASIC, FILTER, NATP, BIMAP, REDIRECTION</i> (for RDR) and <i>PASS</i> .
<i>Interface</i>	This specifies the Interface or the outgoing device on which this Nat Rule would apply. It may be: <i>eth-0, veth-0 - *, eoa-0 - *, , ppp-0 - *, ...</i>
<i>Protocol</i>	This specifies the protocol type for which the rule is meant. It may be: <i>Any, TCP, UDP, ICMP</i> or IANA specified protocol between 0 to 255.
<i>Local Addr From</i>	This is the starting address when a range of private IP addresses are mapped
<i>Local Addr To</i>	This is the last IP address of the range of private IP addresses mapped by this rule.
<i>Dest Addr From</i>	This specifies the start of the range of destination IP address of the packet to matched.
<i>Dest Addr To</i>	This specifies the end of the range of destination IP address to be matched
<i>Dest Port From</i>	This specifies the start of the range of the destination port numbers to be matched.
<i>Dest Port To</i>	This specifies the end of the range of destination port numbers to be matched.
<i>Global Addr From</i>	This specifies the first globally unique IP address of the range of IP addresses being mapped.
<i>Global Addr To</i>	This specifies the last globally unique IP address of the range of IP addresses used in the mapping.
<i>Local Port</i>	This is the translated port number to be used .

Caution

None.

References

- ❖ *create nat rule entry* command
- ❖ *delete nat rule entry* command
- ❖ *nat global info* related commands
- ❖ *nat rule statistics* related commands
- ❖ *nat rule status* related commands

3.156 get nat rule stats

Description

Use this command to display statistics for the specified rule or for all the active rules in the system.

Command Syntax

get nat rule stats [ruleid rule-id]

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the NAT rule, statistics pertaining to which are to be displayed. If this is not specified then statistics for all rules are displayed. Type: Optional Valid values: 1-4294967295

Mode

Super-User, User

Example

\$ get nat rule stats ruleid 1

Output

RuleId	Hits	Inbound Packets	Outbound Packets
1	0	0	0

Output field description

Field	Description
<i>Rule Id</i>	This identifies the NAT rule, statistics pertaining to which is being displayed.
<i>Hits</i>	The number of time this rule was used to create translations

Caution

None.

References

- ❖ *reset nat rule stats* command
- ❖ *nat rule status* related commands
- ❖ *nat rule entry* related commands

3.157 get nat rule status

Description

This command displays NAT rule status information.

Command Syntax

get nat rule status [ruleid rule-id]

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the NAT rule, pertaining to which status information is to be displayed. If this is not specified then status for all rules is displayed. Type: Optional Valid values: 1-4294967295

Mode

Super-User, User

Example

\$ get nat rule status

Output

```
RuleId           Active Translations
-----
1                 0
```

Output field description

Field	Description
<i>RuleId</i>	This identifies the NAT rule, Status information pertaining to which is being displayed
<i>Active Translations</i>	The current number of active translations using this rule

Caution

None.

References

❖ *reset nat status* command

❖ *nat stats* related commands

3.158 *get nat stats*

Description

Use this command to display global NAT statistics.

Command Syntax

get nat stats

Parameters

None.

Mode

Super-User, User

Example

\$ get nat stats

Output

```

Translation Sess      : 10           Translation Misses      : 0
Translated In Pkts   : 412          Translated Out Pkts    : 400
FTP ALG Sess         : 0           SNMP ALG Sess          : 3
RA ALG Sess          : 5           RMCD ALG Sess          : 2
L2TP ALG Sess        : 2           MIRC ALG Sess          : 5
CUSEEME UDP ALG Sess : 2           CUSEEME TCP ALG Sess   : 2
H323 Q931 ALG Sess   : 4           H323 RAS ALG Sess      : 5
H323 RTP ALG Sess    : 3           H323 245 ALG Sess      : 4
PPTP ALG Sess        : 3           RTSP ALG Sess          : 5
TIMBUKTU ALG Sess    : 3           T120 ALG Sess          : 4
SGICompCore ALG Sess : 2           Fragments Processed    : 40
LDAP ALG Sess        : 4           MSN MSGR ALG Sess      : 4
IKE ALG Sess         : 20          ESP ALG Sess           : 10

```

Output field description

Field	Description
<i>Translation Sessions</i>	This gives the total number of translation sessions which have been established so far
<i>Translation Misses</i>	This gives the number of times for a packet a Nat Rule could not be matched i.e that packet went from IN to OUT or OUT to IN without translation
<i>Translated In Pkts</i>	This is the number of inbound packets translated so far.
<i>Translated Out Pkts</i>	This is the number of outbound packets translated so far.
<i>FTP ALG Sessions</i>	The number of translation sessions for FTP ALG.
<i>SNMP ALG Sessions</i>	The number of translation session for SNMP ALG
<i>RA ALG Sessions</i>	The number of translations for Real Audio ALG
<i>RMCD ALG Sessions</i>	The number of translations for Rcmd ALG
<i>L2TP ALG Sessions</i>	Total number of L2TP session that would be running for it.
<i>MIRC ALG Sessions</i>	The number of MIRC Sessions.

<i>CUSEEME UDP ALG Sess</i>	Total number of CUSEEME Udp Sessions
<i>CUSEEME TCP ALG Sess</i>	Total number of CUSEEME Tcp Sessions
<i>H323 Q931 ALG Sess</i>	Total number of H323 Q931 Sessions
<i>H323 RAS ALG Sess</i>	Total number of H323 RAS Sessions
<i>H323 RTP ALG Sess</i>	Total number of H323 RTP Sessions
<i>H323 245 ALG Sess</i>	Total number of H323 245 Sessions
<i>Fragments Processed</i>	The number of fragments processed
<i>TIMBUKTU ALG Sess</i>	Total number of TIMBUKTU Sessions
<i>T120 ALG Sess</i>	Total number of T120 Sessions
<i>LDAP ALG Sess</i>	Total number of LDAP ALG Sessions
<i>SGICompCore ALG Sess</i>	Total number of SGICompCore ALG Sessions
<i>MSN MSGR ALG Sess</i>	Total number of MSN Messenger Sessions
<i>IKE ALG Sess</i>	Total number of IKE ALG sessions
<i>ESP ALG Sess</i>	Total number of ESP ALG sessions

Caution

None.

References

- ❖ *reset nat stats* related commands
- ❖ *nat status info* related commands

3.159 *get nat status*

Description

Use this command to display NAT status information.

Command Syntax

get nat status

Parameters

None.

Mode

Super-User, User

Example

```
$ get nat status
```

Output

```
Active Translations : 47           Active Rules           : 3
FTP ALG Sess       : 4           SNMP ALG Sess         : 2
RA ALG Sess        : 0           RMCD ALG Sess         : 0
L2TP ALG Sess      : 2           MIRC ALG Sess         : 5
CUSEEME UDP ALG Sess : 2       CUSEEME TCP ALG Sess : 2
```

```
H323 Q931 ALG Sess      : 4          H323 RAS ALG Sess      : 5
H323 RTP ALG Sess      : 3          H323 245 ALG Sess     : 4
PPTP ALG Sess          : 1          RTSP ALG Sess         : 4
TIMBUKTU ALG Sess      : 3          T120 ALG Sess         : 4
LDAP ALG Sess          : 3          SGICompCore ALG Sess : 2
MSN MSGR ALG Sess      : 3          IKE ALG Sess          : 2
ESP ALG Sess           : 3
```

Output field description

Field	Description
<i>Active Translations</i>	The current number of active translation Sessions
<i>Active Rules</i>	The current number of rules which are activated
<i>FTP ALG Sessions</i>	Number of sessions using FTP ALG
<i>SNMP ALG Sessions</i>	Number of sessions using SNMP ALG
<i>RA ALG Sessions</i>	Number of sessions using Real Audio ALG
<i>RMCD Sessions</i>	Number of sessions using Remote Command ALG
<i>L2TP ALG Sessions</i>	Number of sessions using L2TP ALG
<i>MIRC ALG Sessions</i>	Number of sessions using MIRC ALG
<i>CUSEEME UDP ALG Sess</i>	Number of sessions using CUSEEME UDP ALGCurrent number of H323 Sessions.
<i>CUSEEME TCP ALG Sess</i>	Number of sessions using CUSEEME TCP ALG
<i>H323 Q931 ALG Sess</i>	Number of sessions using H323 Q931 ALG
<i>H323 RAS ALG Sess</i>	Number of sessions using H323 RAS ALG
<i>H323 RTP ALG Sess</i>	Number of sessions using H323 RTP ALG
<i>H323 245 ALG Sess</i>	Number of sessions using H323 245 ALG
<i>TIMBUKTU ALG Sess</i>	Number of sessions using TIMBUKTU ALG
<i>T120 ALG Sess</i>	Number of sessions using T120 ALG
<i>LDAP ALG Sess</i>	Total number of LDAP ALG Sessions
<i>SGICompCore ALG Sess</i>	Total number of SGICompCore ALG Sessions
<i>MSN MSGR ALG Sess</i>	Total number of MSN Messenger Sessions
<i>IKE ALG Sess</i>	Total number of IKE ALG sessions.
<i>ESP ALG Sess</i>	Total number of ESP ALG sessions

Caution

None.

References

- ❖ `reset nat stats` related commands
- ❖ `nat stats` related commands

3.160 get nat translation

Description

Use this command to display all the active translations in the system.

Command Syntax

get nat translation

Parameters

None.

Mode

Super-User, User

Example

\$ get nat translation

Output

```

Interface           : eth-0                               Translation index
      : 1
Protocol            : TCP                                   NAT Direction
      : OUT
Rule id             : 10                                   Alg Type
      : FTP
Translated In Pkts  : 1400                                 Translated Out Pkts
      : 1300
Out Addr            : 202.5.6.1                             Out Port
      : 21
In Addr             : 192.168.1.3                           Translated In Addr
      : 202.1.1.1
In Source Port      : 1025                                 Translated In Port
      : 40012
Entry Age(sec)     : 86400

```

Output field description

Field	Description
<i>Interface</i>	The Outside Interface on which the translation is working. It may be: eth-0, veth-0 - *, eoa-0 - *, ppp-0 - *, ...
<i>Translation index</i>	This specifies the index of this active translation.
<i>Protocol</i>	This specifies the protocol for which this translation is working. It may be: Any, TCP, UDP, GRE, ICMP, or IANA specified protocol between 0 to 256.
<i>NAT Direction</i>	This tells the translation direction.
<i>Alg Type</i>	This specifies the Alg Type in use. The value 0 means no ALG is in use.
<i>Rule id</i>	Rule identifier of the rule that has created this session entry.
<i>Translated In Pkts</i>	The number of inbound packets translated by this rule.
<i>Translated Out Pkts</i>	The number of Outbound packets translated by this rule.
<i>Out Addr</i>	The IP Address of the remote End.
<i>Out Port</i>	This specifies the remote port.
<i>In Addr</i>	The Inside IP address.
<i>Translated In Addr</i>	The translated Inside IP address.
<i>In Source Port</i>	The inside source port for the translations.
<i>Translated In Port</i>	The translated inside port.
<i>Pkts Translated</i>	The number of packets translated by this rule.
<i>Entry Age</i>	The age of the entry in seconds.

Caution

This command can be executed only when NAT Admin Status is enabled. Please refer to the *modify nat global* command.

References

❖ *nat* related commands

3.161 get nbsize

Description

Use this command to see the sizing parameters whose modification takes effect after the next reboot.

Command Syntax

get nbsize

Parameters

None.

Mode

Super-User, User

Example

\$ get nbsize

Output

Verbose Mode On/Off:

```
Max IP Session: 100      HTTP Port : 80
Telnet Port   : 23       FTP Port  : 21
Serial Auth   : Enable
```

Output field description

Field	Description
<i>Max IP Session</i>	This specifies the maximum number of active IP sessions.
<i>HTTP Port</i>	This specifies the HTTP port
<i>Telnet Port</i>	This specifies the telnet port
<i>FTP Port</i>	This specifies the FTP port
<i>Serial Auth</i>	This specifies whether Serial Port Authentication is enabled or disabled.

Caution

None.

References

❖ *modify nbsize* commands

3.162 get oam cc vc

Description

Use this command to to get the OAM F5 end to end continuity check configuration and status parameters.

Command Syntax

get oam cc vc [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the VC interface for which information is desired. In case the field is not specified, then the information for all valid interfaces is displayed.Type: OptionalValid values: aal5-*

Mode

User, Super-User

Example

\$ \$ get oam cc vc ifname aal5-0

Output

Verbose Mode On:

```

Ifname   Mode   SourceOperStatus EtherCheck SinkOperStatus Initiator
-----
aal5-0   auto   activated          enable    LOC           Peer

```

Verbose Mode Off:

```

Ifname   Mode   SourceOperStatus EtherCheck SinkOperStatus Initiator
-----
aal5-0   auto   activated          enable    LOC           Peer

```

Output field description

Field	Description
<i>Ifname</i>	This parameter specifies VC interface.
<i>Mode</i>	This specifies the mode of activation/deactivation of continuity check.
<i>SourceOperStatus</i>	This field specifies the current operational state of source point of the VCC.
<i>EtherCheck</i>	This field specifies whether ethernet device status should be checked before transmitting a CC cell.
<i>SinkOperStatus</i>	This field specifies the current operational state of sink point of the VCC.
<i>Initiator</i>	This field is valid only in auto mode and it specifies the current initiator of CC Activation/Deactivation.

Caution

None.

References

❖ *modify oam cc vc* commands

3.163 get oam lpbk vc

Description

Use this command to display result of previous OAM loopback command.

Command Syntax

get oam lpbk vc ifname interface-name

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid interfaces should be displayed. Type: Mandatory Valid values: aal5-0 - *

Mode

Super-User.

Example

```
$ get oam lpbk vc ifname aal5-0
```

Output

```
If-Name           : aal5-0   VPI           : 1           VCI           : 1
LB Type           : e2e
OAM Location Id   : 0xffffffffffffffffffffffffffffffff
OAM LB Result     : E2e Succeeded
```

Output field description

Field	Description
<i>If-Name</i>	The name of the aal5 (<i>aal5-0</i> etc.) interface whose statistics are to be retrieved.
<i>VPI</i>	This is the Virtual Port Identifier
<i>VCI</i>	This is the Virtual Circuit Identifier
<i>LB Type</i>	This specifies the loop back type used. It may be: <i>e2e</i> or <i>seg</i>
<i>OAM Location Id</i>	This defines the loop back site which was used to loopback the cell.
<i>OAM LB Result</i>	This specifies the result of the loop back test. It may be <i>Result Unavailable</i> , <i>Seg Succeeded</i> , <i>Seg Failed</i> , <i>E2e Succeeded</i> , <i>E2e Failed</i> , <i>Test Aborted</i> , or <i>Test In Progress</i>

Caution

None.

References

- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *modify oam lpbk* command
- ❖ *atm port* and *statistics* related commands

3.164 get pfraw block**Description**

Use this command to get the pfraw block status for a given protocol.

Command Syntax

```
get pfraw block protocol
```

```
IPV6MCAST|8021Q|ARP|BPDU|IPX|NETBEUI|APPLETALK|RARP|IPMCAST|PPE|L2WALL
```

Parameters

Name	Description
<i>protocol</i> <i>IPV6MCAST 8021Q ARP BPD</i> <i>U IPX NETBEUI APPLETALK</i> <i> RARP IPMCAST PPE L2WALL</i>	This object specifies the protocol for which pfrac rule needs to be blocked/unblocked.

Mode

Super-User and User

Example

```
$ get pfrac block protocol L2WALL
```

Output

Verbose Mode On:

```
Protocol      : l2wall          Rule status : Enable
```

Verbose Mode Off:

```
Protocol      : l2wall          Rule status : Enable
```

Output field description

Field	Description
<i>Protocol</i>	This field indicates which pfrac protocol is to be blocked.
<i>Rule Status</i>	This field indicates the rule is enabled or disabled.

Caution

None.

References

modify pfrac block command.

3.165 get pfrac global

Description

Use this command to get global parameters of raw filter.

Command Syntax

get pfraw global

Parameters

None.

Mode

Super-User and User

Example

\$ get pfraw global

Output

Verbose Mode On:

Status : Disable
Default action : Deny

Verbose Mode Off:

Status : Disable
Default action : Deny

Output field description

Field	Description
<i>Status</i>	This field indicates whether the raw filter is enabled or disabled.
<i>Default action</i>	This field indicates the default action to be taken if the packet does not match any of the specified rules.

Caution

None.

References

modify pfraw global command..

3.166 get pfraw rule info

Description

Use this command to get the attributes of rules and sub-rules based on interface and direction.

Command Syntax

get pfraw rule info [ifname interface-name] [dir in|out] [ruleid rule-id] [subruleid subrule-id]

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the interface name for which the rule info is sought. Type: Optional Valid values: <i>eth-0, veth-0, veth-1..., ppp-0 - *, ..., eoa-0 - *1, veth-2, veth-3</i>
<i>dir in out</i>	This specifies the direction for which the applicable rule information is sought. Type: Optional Valid values: <i>in or out</i>
<i>ruleid rule-id</i>	This identifies the rule index of the rule for which information is sought. Type: Optional Valid values: <i>0 - 65535</i> Only existing rule ids accepted as input.
<i>subruleid sub-rule-id</i>	This specifies the sub-rule index of the sub-rule for which information is sought. Type: Optional Valid values: <i>0 - 254</i> Only existing rule ids accepted as input.

Mode

Super-User and User

Example

```
$ get pfraw rule info ifname eth-0 dir in
```

Output

Verbose Mode On:

```
Rule id      : 2                Rule status   : Enable
Sub Rule id  : 1                Sub Rule status : Enable
Interface    : ppp-0           In interface   : eth-0
Direction    : Out            Offset from    : Linkh
Offset       : 6
Comp operation : Range
Low value    : 0x00000000FF000000
High value   : 0x00000000FFCD0000
Mask        : 0x00000000FFFF0000
Action       : Accept          Logging       : Match
```

Verbose Mode Off:

```
Rule id      : 2                Rule status   : Enable
Sub Rule id  : 1                Sub Rule status : Enable
Interface    : ppp-0           In interface   : eth-0
Direction    : Out            Offset from    : Linkh
```

```

Offset      : 6
Comp operation : Range
Low value   : 0x00000000FF000000
High value  : 0x00000000FFCD0000
Mask        : 0x00000000FFFF0000
Action      : Accept          Logging      : Match

```

Output field description

Field	Description
<i>Rule id</i>	This identifies the rule index of the rule.
<i>Rule Status</i>	This specifies whether this rule is enabled or disabled.
<i>Sub Rule id</i>	This specifies the sub-rule index of the sub-rule.
<i>Sub Rule status</i>	This specifies whether this subrule is enabled or disabled.
<i>Interface</i>	This specifies the interface name for a rule.
<i>In Interface</i>	This specifies the incoming interface for the given outgoing interface.
<i>Direction</i>	This specifies the filtering direction to which this rule is applied.
<i>Offset from</i>	This specifies the start position in the packet for an offset. The start position can be the beginning of the header or data portions of various protocols.
<i>Offset</i>	This specifies the offset with in the header or data part of the packet.
<i>Comp Operation</i>	This specifies the type of comparison that is done on the extracted data and the comparison value(s)
<i>Low Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>High Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Relational.
<i>Mask</i>	This is hexadecimal pattern which specifies the mask
<i>Action</i>	This specifies the action taken when a packet matches this rule
<i>Logging</i>	This specifies the log option of this rule

Caution

None.

References

pfraw related commands.

3.167 get pfraw rule stats

Description

Use this command to get raw filter stats for a given rule id or for all the rule-ids.

Command Syntax

```
get pfraw rule stats [ruleid rule-id]
```

Parameters

Field	Description
<i>ruleid rule-id</i>	This identifies the rule index for which the statistics should be shown. Type: Optional Valid values: 0 - 65535 Only existing rule ids accepted as input.

Mode

Super-User and User.

Example

```
$ get pfraw rule stats ruleid 1
```

Output

Verbose Mode On:

```
Rule id   Packets count
-----
1         4
```

Verbose Mode Off:

```
Rule id   Packets count
-----
1         4
```

Output field description

Field	Description
<i>Rule id</i>	This field indicates whether the raw filter status is enabled or disabled.
<i>Packets count</i>	This field indicates the number of packets matching this rule.

Caution

None.

References

- ❖ `get pfraw stats` command

3.168 get pfraw stats

Description

Use this command to get global statistics of raw filter.

Command Syntax

`get pfraw stats`

Parameters

None.

Mode

Super-User and User

Example

```
$ get pfraw stats
```

Output

Verbose Mode On:

```
Total rules      : 0  
Packets count    : 0
```

Verbose Mode Off:

```
Total rules      : 0  
Packets count    : 0
```

Output field description

Field	Description
<i>Packets count</i>	This field tells the total packets given to the raw filter.
<i>Total rules</i>	This field tells the existing number of rules.

Caution

None.

References

- ❖ `get pfraw rule stats` command

3.169 get ppe acserv

Description

Use this command to get the Service names supported by the Access Concentrators on the specified interface.

Command Syntax

get ppe acserv ifname interface-name

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the Interface on which VC on which the AC Name – Service Name query is to be sent. Type: Mandatory Valid values: <i>aal5-0 - *, ppp-0 to ppp-63</i>

Mode

Super-User, User

Example

\$ get ppe acserv ifname aal5-0

Output

If-name : aal5-0
AC Name : AC1
Service Name : Srv1

Output field description

Field	Description
<i>If-Name</i>	This specifies the VC on which the AC Name – Service Name query was sent.
<i>AC Name</i>	This specifies the Access Concentrator name
<i>Service Name</i>	This specifies the service name supported by the Access Concentrator

Caution

None.

References

❖ *ppe pconf* related commands

3.170 get ppe cfg

Description

Use this command to get PPPoE global configuration parameters.

Command Syntax

get ppe cfg

Parameters

None.

Mode

Super-User, User

Example

\$ get ppe cfg

Output

```
Max PADI Attempts           : 3  Max PADR Attempts           : 3
Max Disc Attempts          : 3  Initial PADI Time Diff(sec) : 2
Initial PADR Time Diff (sec) : 2  AC Selection Policy         : first-come
```

Output field description

Field	Description
<i>Max PADI Attempts</i>	This specifies the maximum number of PADI attempts that shall be made by PPPoE.
<i>Max PADR Attempts</i>	This specifies the maximum number of PADR attempts that shall be made by PPPoE
<i>Max Disc Attempts</i>	This specifies the maximum number of discovery attempts that shall be made by PPPoE
<i>Initial PADI Time Diff (Secs)</i>	This specifies the initial PADI time difference (in seconds) for retries.
<i>Initial PADR Time Diff (Secs)</i>	This specifies the initial PADR time difference (in seconds) for retries.
<i>AC Selection Policy</i>	This specifies the default AC selection policy used by PPPoE. It may be: <i>first-come</i> , <i>serv-to-ac</i>

Caution

None.

References

- ❖ *modify ppe cfg* command
- ❖ *ppe pconf* related commands
- ❖ *ppe stats global* related commands
- ❖ *ppe stats session* related commands

3.171 get ppe pconf

Description

This command is used for getting information on all the configured policy table entries.

Command Syntax

get ppe pconf

Parameters

None.

Mode

Super-User, User

Example

\$ get ppe pconf

Output

```
Ac Name      : AC1
Service Name : Srv1
```

Output field description

Field	Description
<i>ACName</i>	This specifies the Access Concentrator name
<i>ServiceName</i>	This specifies the service name

Caution

None.

References

- ❖ *delete ppe pconf* command
- ❖ *create ppe pconf* command
- ❖ *ppe cfg* related commands

- ❖ `get ppe stats global` command
- ❖ `get ppe stats session` command

3.172 get ppe stats global

Description

Use this command to get global PPPoE statistics.

Command Syntax

```
get ppe stats global
```

Parameters

None.

Mode

Super-User, User

Example

```
$ get ppe stats global
```

Output

```

Session Reqs      : 100           Sessions Term      : 56
Sessions Estd     : 60           Sessions Not Estd : 40
PADI Msgs Sent    : 100          PADO Msgs Rcvd    : 100
PADR Msgs Sent    : 65           PADS Msgs Rcvd    : 60
PADT Msgs Sent    : 40           PADT Msgs Rcvd    : 16
Data Msgs Sent    : 6000         Data Msgs Rcvd    : 4000

```

Output field description

Field	Description
<i>Session Reqs</i>	This specifies the number of session requests received.
<i>Sessions Estd</i>	This specifies the number of sessions established
<i>Sessions Not Estd</i>	This specifies the number of sessions could not be established
<i>Sessions Term</i>	This specifies the number of sessions terminated
<i>PADI Msgs Sent</i>	This specifies the number of PADI messages sent
<i>PADO Msgs Rcvd</i>	This specifies the number of PADO messages received
<i>PADR Msgs Sent</i>	This specifies the number of PADR messages sent
<i>PADS Msgs Rcvd</i>	This specifies the number of PADS messages received
<i>PADT Msgs Sent</i>	This specifies the number of PADT messages sent
<i>PADT Msgs Rcvd</i>	This specifies the number of PADT messages received
<i>Data Msgs Sent</i>	This specifies the number of session data messages sent
<i>Data Msgs Rcvd</i>	This specifies the number of session data messages received

Caution

None.

References

- ❖ *ppe pconf* related commands
- ❖ *ppe stats session* related commands
- ❖ *ppe cfg* related commands

3.173 get ppe stats session

Description

Use this command to get PPE statistics per session.

Command Syntax

```
get ppe stats session [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the Interface on which PPP is running. If this is not specified then information for all interfaces is displayed. Type: Optional Valid values: <i>ppp-0 - *; ...</i>

Mode

Super-User, User

Example

```
$ get ppe stats session ifname ppp-0
```

Output

```
If-Name           : ppp-0
PADI Msgs Sent    : 10           PADO Msgs Rcvd    : 10
PADR Msgs Sent    : 4           PADS Msgs Rcvd    : 3
Data Msgs Sent    : 60          Data Msgs Rcvd    : 40
```

Output field description

Field	Description
<i>If-Name</i>	This specifies the PPPoE interface for which session stats are being shown.
<i>PADI Msgs Sent</i>	This specifies the number of PADI messages sent

<i>PADO Msg Rcvd</i>	This specifies the number of PADO messages received
<i>PADR Msgs Sent</i>	This specifies the number of PADR messages sent
<i>PADS Msgs Rcvd</i>	This specifies the number of PADS messages received

Caution

None.

References

- ❖ *ppe cfg* related commands
- ❖ *ppe stats global* related commands
- ❖ *ppe pconf* related commands

3.174 get ppp global

Description

Use this command to get PPP global informationl

Command Syntax*get ppp global***Parameters**

None

Mode

User

Example*\$ get ppp global***Output**

```
PPP Inactivity Timeout      : 0      Ignore WAN to LAN traffic : False
```

Output field description

Field	Description
<i>PPP Inactivity Timeout</i>	This specifies the inactivity timeout for PPP sessions.

<i>Ignore WAN to LAN traffic</i>	Flag indicating whether to ignore WAN to LAN traffic for PPP Session timeout.
----------------------------------	---

Caution

None

References

❖ *modify ppp global* command

3.175 get ppp intf

Description

Use this command to get information on a particular PPP interface or on all PPP interfaces

Command Syntax

get ppp intf [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the Interface for PPP Links. If this is not specified then information for all interfaces is displayed. Type: Optional Valid values: <i>ppp-0 - *, ...</i>

Mode

Super-User, User

Example

\$ get ppp intf ifname ppp-0

Output

Entry Created

```
If-Name           : ppp-0           L2TP Call type      : inlac
Interface Sec Type : Public          Phy Interface        : aal5-0
Configured IP Address : 0.0.0.0      NAT Direction       : OUT
Init MRU           : 1500           Magic                : False
```

```

Encapsulation      : PPPOA          Service Name      : -
UseDhcp            : False           UseDns            : False
DRoute             : False           Status            : Start
Gateway IP Address : 202.1.1.2       Associated Num If-Name : eth-0
Use Gateway        : remote

```

Output field description

Field	Description
<i>If-Name</i>	This specifies the PPP interface for the PPP Links: It may be: <i>ppp-0, ppp-1...</i>
<i>L2TP Call Type</i>	This field specifies the l2tp call type.
<i>Interface Sec Type</i>	Interface security type.
<i>Phy Interface</i>	This specifies Name of the lower interface on which PPP is running. It may be: <i>aal5-0, aal5-1...</i>
<i>Configured IP Address</i>	This specifies the IP Address for the PPP Link.
<i>NAT Direction</i>	This variable specifies whether this interface's address is inside or outside. It may be: <i>inside, outside, none</i>
<i>Init MRU</i>	The initial Maximum Receive Unit (MRU) that the local PPP entity will advertise to the remote entity
<i>Magic</i>	This specifies whether the local node will attempt to perform Magic Number negotiation with the remote node. It may be: <i>True, False</i>
<i>Encapsulation</i>	This specifies the lower layer protocol used below this PPP Link. It may be: <i>PPPOA, PPPOE</i>
<i>Service Name</i>	This specifies the service name used for PPPoE. It is generally the name of the ISP.
<i>UseDhcp</i>	This specifies whether DHCP is to be used for address negotiation. It may be either True or False
<i>UseDns</i>	This specifies whether DNS server addresses are to be obtained using IPCP or not.
<i>Droute</i>	Default Route
<i>Status</i>	This shows whether PPP session on this interface is active. It may be: <i>Start, Stop, StartOnData.</i>
<i>Gateway IP Address</i>	This specifies the IP Address of the Gateway.
<i>Associated Num If-Name</i>	This specifies the interface name of the associated numbered interface. A "-" indicates that this ppp interface is not associated with any numbered interface.
<i>Use Gateway</i>	This specifies whether local or remote gateway is to be used.

Caution

None.

References

- ❖ *delete ppp intf* command
- ❖ *create ppp intf* command
- ❖ *modify ppp intf* command
- ❖ *ppp lstatus* related commands

❖ *ppp security* related commands

3.176 get ppp ipinfo

Description

Use this command to get PPP IP status on a particular PPP interface or on all the PPP interfaces.

Command Syntax

get ppp ipinfo [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	Identifies the interface. If no interface name is specified then information for all interfaces is retrieved. Type: Optional Valid values: <i>ppp-0 - *; ppp-1...</i>

Mode

Super-User, User

Example

\$ get ppp ipinfo

Output

```
If-name           : ppp-0           Status           : Opened
Self Ip Address   : 172.25.2.100      Peer Ip Address  : 175.30.2.100
Prim DSN Server   : 123.24.1.100     Sec DNS Server   : 125.60.2.200
-----
```

Output field description

Field	Description
<i>Self Ip Address</i>	Self IP address of the PPP interface
<i>Peer Ip Address</i>	Remote IP Address of the PPP interface
<i>Prim DNS Server</i>	Primary DNS Server address.
<i>Sec DNS Server</i>	Secondary DNS Server address

Caution

This command can be executed only when a valid PPP Interface exists.

References

- ❖ `create ppp intf` command
- ❖ `get ppp lstatus` command

3.177 get ppp lstatus

Description

Use this command to get link status on a particular PPP interface or on all the PPP interfaces.

Command Syntax

`get ppp lstatus [ifname interface-name]`

Parameters

Name	Description
<code>ifname <i>interface-name</i></code>	Identifies the interface. If no interface name is specified then information for all interfaces is retrieved. Type: Optional Valid values: <code>ppp-0 - *, ...</code>

Mode

Super-User, User

Example

```
$ get ppp lstatus
```

Output

```
If-name           : ppp-0      Lower-If           : aa15-0
Local MRU          : 1500      Remote MRU         : 1500
L2R Protocol Comp : Enable    R2L Protocol Comp : Enable
L2R AC Comp        : Enable    R2L AC Comp        : Enable
Operational Status : Down      Last Fail Cause   : No Valid PADO
recvd
```

Output field description

Field	Description
<i>If-name</i>	The Interface of PPP on which IPCP is running. It may be: ppp-0 - *, ...
<i>Lower-If</i>	This identifies the lower-level interface over which this PPP Link is operating. It may be: aal5-0 - *
<i>Local MRU</i>	The current value of the MRU for the local PPP Entity. This value is the MRU that the remote entity is using when sending packets to the local PPP entity. The value of this object is meaningful only when the link has reached the open state, i.e., Oper Status as shown by get interface stats is Up
<i>Remote MRU</i>	The current value of the MRU for the local PPP Entity. This value is the MRU that the remote entity is using when sending packets to the local PPP entity. The value of this object is meaningful only when the link has reached the open state, i.e., Oper Status as shown by get interface stats is Up
<i>L2R Protocol Comp</i>	Indicates whether the local PPP entity will use Protocol Compression when transmitting packets to the remote PPP entity. The value of this object is meaningful only when the link has reached the open state, i.e., Oper Status as shown by get interface stats is Up It may be: <i>Enable, Disable</i>
<i>R2L Protocol Comp</i>	Indicates whether the remote PPP entity will use Protocol Compression when transmitting packets to the local PPP entity. The value of this object is meaningful only when the link has reached the open state, i.e., Oper Status as shown by get interface stats is Up It may be: <i>Enable, Disable</i>
<i>L2R AC Comp</i>	Indicates whether the local PPP entity will use Address and Control Compression when transmitting packets to the remote PPP entity. The value of this object is meaningful only when the link has reached the open state, i.e., Oper Status as shown by get interface stats is Up It may be: <i>Enable, Disable</i>
<i>R2L AC Comp</i>	Indicates whether the remote PPP entity will use Address and Control Compression when transmitting packets to the local PPP entity. The value of this object is meaningful only when the link has reached the open state, i.e., Oper Status as shown by get interface stats is Up It may be: <i>Enable, Disable</i>
<i>Operational Status</i>	The operational status of the interface. Values can be Up, Down, Lcp, Auth, Ncp, Dhcp.
<i>Last Fail Cause</i>	This gives the reason for last failure of PPP Link. It may be: - No Valid PADO recvd, No Valid PADS recvd, Stopped by User, No Activity, Auth Failure, Internal failure

Caution

This command can be executed only when a valid PPP Interface exists.

References

- ❖ `create ppp intf` command
- ❖ `get ppp iptatus` command

3.178 get ppp security

Description

Use this command to get information on a particular ppp security secrets entry or for all entries.

Command Syntax

`get ppp security [ifname interface-name]`

Parameters

Name	Description
<code>ifname interface-name</code>	This specifies the PPP interface for which the security entry is to be displayed. If this is not specified then information for all PPP interfaces is displayed. Type: Optional Valid values: <code>ppp-0 - *, ..., default</code>

Mode

Super-User, User

Example

```
$ get ppp security ifname ppp-0
```

Output

Verbose Mode On

```
IfName      : ppp-0      Protocol : PAP
Login       : abc
```

Verbose Mode Off

Entry Created

Output field description

Field	Description
<i>IfName</i>	This specifies the PPP interface for which the security entry has been displayed. It may be: <i>ppp -0 - * ...</i> , <i>default</i> . The <i>default</i> entry gets used in case there is no specific entry for that interface.
<i>Protocol</i>	This is the protocol used for authentication It may be: <i>PAP, CHAP</i>
<i>Login</i>	This is the login name

Caution

None.

References

- ❖ *delete ppp security* command
- ❖ *create ppp security* command
- ❖ *modify ppp security* command
- ❖ *ppp lstatus* related commands
- ❖ *ppp intf* related commands

3.179 get rip global

Description

Use this command to get the global parameters of RIP.

Command Syntax

get rip global

Parameters

None.

Mode

Super-User and User

Example

get rip global

Output

Verbose Mode On

```
RIP status                : enable
RIP route update time(sec) : 30
RIP route age time(sec)   : 180
```

Verbose Mode Off

```
RIP status : enable
RIP route update time(sec) : 30
RIP route age time(sec) : 180
```

Output field description

Field	Description
<i>RIP status</i>	This tells whether RIP is enabled or disabled
<i>RIP route update time</i>	This tells the timer frequency at which the RIP would broadcast its routes to all its neighbors
<i>RIP route age time</i>	This tells the timer frequency at which RIP would age a route, if an update is not received for this duration.

Caution

None.

References

- ❖ *get rip intf* command
- ❖ *modify rip global*
- ❖ *create rip intf* command

3.180 get rip intf

Description

Use this command to get RIP protocol parameters on the specified IP Interface.

Command Syntax

get rip intf [ifname interface-name]

Parameters

Name	Description
<i>ifname interface-name</i>	Specifies the IP Interface name on which RIP is to be started. Type: Optional Valid values: <i>veth-0-*</i> , <i>ppp-0,ppp-0-*</i> , <i>eoas-0-*</i> , <i>ipoa-0-*</i> , <i>usb-0</i>

Mode

Super-User and User

Example

get rip intf ifname ppp-0

Output

Verbose Mode On

```
IP Interface Name      : ppp-0                      RIP Interface Metric : 1
RIP Send Mode         : rip1                        RIP Receive Mode     : rip1
RIP Send Def Route    : Enable                      RIP Recv Def Route   :
Disable
RIP packet auth       : None
```

Verbose Mode Off

```
IP Interface Name      : ppp-0                      RIP Interface Metric : 1
RIP Send Mode         : rip1                        RIP Receive Mode     : rip1
RIP Send Def Route    : Enable                      RIP Recv Def Route   :
Disable
RIP packet auth       : None
```

Output field description

Field	Description
<i>RIP Interface Name</i>	This tells the name of the IP Interface, or on all RIP interfaces, on which information is requested.
<i>RIP Interface Status</i>	This tells whether the RIP Interface is enabled or disabled.
<i>RIP Interface Metric</i>	This tells the metric value attached to the interface. The metric is used by RIP in deciding which among alternate routes is the most optimal
<i>RIP Send Mode</i>	This tells the packet format used for sending RIP updates and requests
<i>RIP Receive Mode</i>	This tells the packet format accepted while receiving

	RIP updates and requests and responses
<i>RIP Send Def Route</i>	This tells whether default route is to be included in the updates sent on the interface, or not.
<i>RIP Recv Def Route</i>	This tells whether default route is to be processed in the updates received on the interface or not.
<i>RIP packet auth</i>	This tells whether RIP authentication is enabled or not

Caution

None.

References

- ❖ `get rip global` command
- ❖ `create rip intf` command

3.181 get rip stats

Description

Use this command to view RIP stats.

Command Syntax

`get rip stats`

Parameters

None.

Mode

Super-User and User

Example

`get rip stats`

Output

Verbose Mode On

```

Requests sent           : 10           Responses sent
: 20
Request pkts received  : 30           Pkts with bad RIP version
: 10
Pkts with bad addr family : 3           Pkts with bad req format
: 5
Pkts with bad metrics   : 10           Pkts with bad resp format
: 3
Resp from non-RIP port  : 5           Pkts rejected
: 7
Response packets received : 70          Unrecognized packets
: 15

```

Pkts from non-neighbors : 3 Failed authentication
: 2
Route changes made by RIP : 7

Verbose Mode Off

Requests sent : 10 Responses sent
: 20
Request pkts received : 30 Pkts with bad RIP version
: 10
Pkts with bad addr family : 3 Pkts with bad req format
: 5
Pkts with bad metrics : 10 Pkts with bad resp format
: 3
Resp from non-RIP port : 5 Pkts rejected
: 7
Response packets received : 70 Unrecognized packets
: 15
Pkts from non-neighbors : 3 Failed authentication
: 2
Route changes made by RIP : 7

Output field description

Field	Description
<i>Requests sent</i>	Number of RIP requests sent
<i>Responses sent</i>	Number of RIP responses sent
<i>Request pkts received</i>	Number of RIP packets received for request
<i>Pkts with bad RIP version</i>	Number of RIP packets received with invalid version
<i>Pkts with bad address family</i>	Number of packets received with incorrect address family
<i>Pkts with bad request format</i>	Number of request packets received with invalid format
<i>Pkts with bad metrics</i>	Number of packets received with metric value not between 1 to 15
<i>Pkts with bad response format</i>	Number of response packets received with invalid format
<i>Resp from non-RIP port</i>	Number of packets received from a port other than specified RIP port
<i>Pkts rejected</i>	Number of packets rejected
<i>Response packets received</i>	Number of RIP packets received for response
<i>Unrecognized packets</i>	Number of unrecognizable packets
<i>Pkts from non-neighbors</i>	Number of packets received from non-neighbor nodes
<i>Failed authentication</i>	Number of requests for which packet authentication has failed
<i>Route changes made by RIP</i>	Number of times the routing table has changed

Caution

None.

References

None.

3.182 get rmon eventgrp

Description

Use this command to get event group information for all event groups or event groups with a specific name.

Command Syntax

```
get rmon eventgrp [rname event-grp-name]
```

Parameters

Name	Description
<i>rname event-grp-name</i>	This specifies the name of the event group whose information is to be displayed. Type: Optional Valid values: String of Max. 8 Characters('A'- 'Z', 'a'- 'z', '0'-'9', '-', '_')

Mode

Super-User

Example

```
$ get rmon eventgrp
```

Output

```

Name          Event Flags  Tasks Waiting  First Task
-----
BUFAVA        0             1              0xa27bc0
EROOT1        0             1              0xc2d578

```

Output field description

Field	Description
<i>Name</i>	This specifies the event group's name.
<i>Event Flags</i>	This indicates the current event flags.
<i>Tasks Waiting</i>	This indicates the no. of tasks waiting on the event flag group.
<i>First Task</i>	This is the address of the first suspended task.

Caution

None.

References

- ❖ *get rmon* commands for queue, semaphore, mpool and task.

3.183 get rmon mpool

Description

Use this command to get memory pool information for all memory pools or memory pools with the specified name.

Command Syntax

```
get rmon mpool [rname mem-pool-name]
```

Parameters

Name	Description
<i>rname mem-pool-name</i>	This specifies the name of the memory pool whose information is to be displayed. Type: Optional Valid values: String of Max. 8 Characters('A'- 'Z', 'a'- 'z', '0'-'9','-', '_')

Mode

Super-User

Example

```
$ get rmon mpool rname MDGAG
```

Output

```
Name           : MDGAG           Size           : 0x270
Min            : 0x28            Free           : 0x0
Tasks Waiting  : 0              Suspend Type   : FIFO
Start Addr     : 0x807554       First Task     : 0x0
..
```

Output field description

Field	Description
Name	This specifies the name of the memory pool whose information is to

	be displayed.
Size	This indicates the total number of bytes in the memory pool.
Min	This indicates the minimum no. of bytes for each allocation from this pool.
Free	This indicates the no. of bytes available in the pool.
Tasks Waiting	This indicates the number of tasks waiting on the dynamic-memory pool.
Suspend Type	This indicates the task suspend type. It may be: <i>FIFO, PRIORITY</i>
Start Addr	This is the starting address of the pool.
First Task	This is the address of the first suspended task.

Caution

None.

References

- ❖ *get rmon* commands for queue, semaphore, task and eventgrp.

3.184 get rmon queue

Description

Use this command to get queue information for all queues or queues with a specific name.

Command Syntax

```
get rmon queue [rname queue-name]
```

Parameters

Name	Description
<i>rname queue-name</i>	This specifies the name of the queue whose information is to be displayed. Type: Optional Valid values: String of Max. 8 Characters('A'- 'Z', 'a'- 'z', '0'-'9', '-', '_')

Mode

Super-User

Example

```
$ get rmon queue rname qucli
```

Output

```
Name           : QUCLI           Start Addr      : 0x807348
Size           : 0x8             Available Size   : 0x8
Pending Msgs   : 0               Msg Type        : FIXED
Msg Size       : 0x1             Suspend Type    : PRIORITY
Tasks Waiting  : 0               First Task Addr : 0x0
..
```

Output field description

Field	Description
<i>Name</i>	This specifies the name of the Queue whose information is being displayed.
<i>Start Addr</i>	This specifies the Starting address for the queue in memory.
<i>Size</i>	This indicates the total number of 4 byte data elements in the queue
<i>Available Size</i>	This indicates the number of 4 byte data elements available in the queue
<i>Pending Msgs</i>	This indicates the no. of messages already in the queue
<i>Msg Type</i>	This specifies the type (depending on size) of mes-

	sages supported by the queue. This may be: <i>FIXED</i> , <i>VARIABLE</i>
<i>Msg Size</i>	This indicates the no. of 4 byte data elements in each queue message. If the queue supports variable length messages, then this no. is the maximum message size.
<i>Suspend Type</i>	This indicates the task suspend type. It may be: <i>FIFO</i> , <i>PRIORITY</i>
<i>Tasks Waiting</i>	This indicates the no. of tasks waiting on the queue.
<i>First Task Addr</i>	This is the address of the first suspended task.

Caution

None.

References

- ❖ *get rmon* commands for task, semaphore, mpool and eventgrp.

3.185 get rmon semaphore

Description

Use this command to get semaphore information for all semaphores or semaphores with a specific name.

Command Syntax

```
get rmon semaphore [rname semaphore-name]
```

Parameters

Name	Description
<i>rname semaphore-name</i>	This specifies the name of the semaphore whose information is to be displayed. Type: Optional Valid values: String of Max. 8 Characters ('A'-'Z', 'a'-'z', '0'-'9', '-', '_')

Mode

Super-User

Example

```
$ get rmon semaphore rname TCP
```

Output

Name	Count	Suspend Type	Tasks Waiting	First Task Addr
TCP	1	FIFO	0	0x0

Output field description

Field	Description
<i>Name</i>	This specifies the name of the semaphore.
<i>Count</i>	This is the current instance count of the semaphore.
<i>Suspend Type</i>	This indicates the task suspend type. It may be: <i>FIFO</i> , <i>PRIORITY</i>
<i>Tasks Waiting</i>	This indicates the no. of tasks waiting on the queue.
<i>First Task Addr</i>	This is the address of the first suspended task.

Caution

None.

References

- ❖ `get rmon` commands for queue, task, mpool and eventgrp.

3.186 get rmon task

Description

Use this command to get task information for all tasks or tasks with a specific name.

Command Syntax

`get rmon task [rname task-name]`

Parameters

Name	Description
<i>rname task-name</i>	This specifies the name of the task whose information is to be displayed. Type: Optional Valid values: String of Max. 8 Characters('A'- 'Z', 'a'- 'z', '0'-'9', '-', '_')

Mode

Super-User

Example

```
$ get rmon task rname roottask
```

Output

```
Name           : ROOTTASK           Status          : PURE SUSPEND
Sched Count     : 69                 Priority         : 1
Preempt        : Yes                 Time Slice      : 0
Stack Base     : 0xfb0050           Stack Size      : 0x400
Min Stack Size : 0x0
```

Output field description

Field	Description
<i>Name</i>	The name of the task information related to which is being displayed
<i>Status</i>	Current Status of the Task. It may be: <i>READY</i> , <i>PURE SUSPEND</i> , <i>FINISHED</i> , <i>TERMINATED</i> , <i>SLEEP SUSPEND</i> , <i>MAILBOX SUSPEND</i> , <i>QUEUE SUSPEND</i> , <i>PIPE SUSPEND</i> , <i>EVENT SUSPEND</i> , <i>SEMAPHORE SUSPEND</i> , <i>MEMORY SUSPEND</i> , <i>PARTITION SUSPEND</i> , <i>DRIVER SUSPEND</i>
<i>Sched Count</i>	The No. of times the task has been scheduled
<i>Priority</i>	The priority of the task. The lower the value, the higher is the priority of the task.
<i>Preempt</i>	This indicates whether the task is preemptable or not. It may be: <i>Yes</i> , <i>No</i>
<i>Time Slice</i>	This indicates the task's time slice value. A value of <i>0</i> indicates that time slicing for this task is disabled.
<i>Stack Base</i>	This is the starting address of the task's stack.
<i>Stack Size</i>	This indicates the total no. of bytes in the task's stack
<i>Min Stack Size</i>	This indicates the minimum no. of bytes left in the task's stack

Caution

None.

References

- ❖ *get rmon* commands for queue, task, mpool and eventgrp.

3.187 get sizeinfo**Description**

Use this command to get the configuration of the system sizing parameters.

Command Syntax

get sizeinfo

Parameters

None.

Mode

User

Example

\$ get sizeinfo

Output

Entry Created

```
Max PPE Sessions      : 8                      Max TBG MAC address :
256
Max VCs               : 8                      Max 1483 VCs        : 8
Max PFRaw Rules      : 64                    Max PFRaw Subrules  : 68
Max IPF Rules        : 50                    Max L2TP Tunnel     : 1
Max L2TP Sess pwer Tunnel : 1                Max L2TP Peer RWS   : 4
```

Output field description

Field	Description
<i>Max PPE Sessions</i>	This specifies the maximum number of PPPoE sessions supported in the system.
<i>Max TBG MAC address</i>	This specifies the maximum number of MAC address that can be learned by bridging module.
<i>Max VCs</i>	This specifies the maximum number of VCCs supported over all ATM ports.
<i>Max 1483 VCs</i>	This specifies the maximum 1483 connections used for MEA5.
<i>Max PFRaw Rules</i>	This specifies the maximum number of raw filter rules that can be created in the system.
<i>Max PFRaw Subrules</i>	This specifies the maximum number of raw filter subrules that can be created in the system.
<i>Max IPF Rules</i>	This specifies the maximum number of IP filter rules that can be created in the system.
<i>Max l2tp Tunnel</i>	Maximum number of L2TP tunnels supported in the system
<i>Max L2TP Sess pwer Tunnel</i>	Maximum number of PPP sessions supported per L2TP tunnel.
<i>Max L2TP Peer RWS</i>	Maximum size of peer receive window size that can be handled

Caution

None.

References

❖ *size* command

3.188 *get smtp servaddr*

Description

Use this command to get SMTP server address.

Command Syntax

get smtp servaddr

Parameters

None.

Mode

User, Super-User

Example

\$ get smtp servaddr

Output

Verbose Mode on/off

```
Server Address      Server Domain Name
-----
192.168.1.1        abc.def.com
```

Output field description

Field	Description
<i>Server Address</i>	IP address of the SMTP server..
<i>Server Domain Name</i>	The fully qualified domain name of the SMTP server.

Caution

None.

References

❖ *modify smtp servaddr* command

3.189 get snmp comm

Description

This command is used for getting information about entries in the community table.

Command Syntax

```
get snmp comm [community comm-name]
```

Parameters

Name	Description
<i>community comm-name</i>	This specifies the Community name. If no community name is specified then information for all communities is displayed. Type: Optional Valid values: String of Max. 50 Characters('A'- 'Z', 'a'-'z', '0'-'9', '-' , '_')

Mode

Super-User, User

Example

```
$ get snmp comm
```

Output

```
Access           Community
-----
RO               public
```

Output field description

Field	Description
<i>Community</i>	This specifies the Community name
<i>Access</i>	This specifies the access permissions given to managers with this community name. It may be: <i>RO</i> (Read Only), <i>RW</i> (Read-Write)

Caution

None.

References

- ❖ `create snmp comm` command
- ❖ `delete snmp comm` command
- ❖ `snmp trap` related commands
- ❖ `snmp host` related commands
- ❖ `snmp stats` related commands

3.190 get snmp host

Description

Use this command to get information about all entries in the SNMP host table.

Command Syntax

`get snmp host`

Parameters

None.

Mode

Super-User, User

Example

`$ get snmp host`

Output

```
Host Address          Community
-----
192.168.1.3          public
```

Output field description

Field	Description
<i>Host Address</i>	This specifies the IP address of the manager that has access permissions for the modem.
<i>Community</i>	This specifies the Community name.

Caution

None.

References

- ❖ `create snmp` host command
- ❖ `delete snmp` host command
- ❖ `SNMP trap` related commands
- ❖ `SNMP comm` related commands
- ❖ `SNMP stats` related commands.

3.191 get snmp stats

Description

Use this command to display global SNMP statistics.

Command Syntax

`get snmp stats`

Parameters

None.

Mode

Super-User, User

Example

```
$ get snmp stats
```

Output

```
Rx Pkts count           : 0           Tx Pkts count           : 0
Rx Bad Versions count  : 0           Rx Bad Comm count       : 0
Rx Bad Comm Use count  : 0           Rx ASN Errs count       : 0
Rx Too Big count       : 0           Tx Too Big count        : 0
Rx NoSuchName count    : 0           Tx NoSuchName count     : 0
Rx Bad Values count    : 0           Tx Bad Values count     : 0
Rx Gen Errs count      : 0           Tx Gen Errors count     : 0
Rx Tot Req Vars count  : 0           Rx Tot Set Vars count   : 0
Rx Get Req count       : 0           Tx Get Req count        : 0
Rx Get Next Req count  : 0           Tx Get Next Req count   : 0
Rx Set Req count       : 0           Tx Set Req count        : 0
Rx Get Response count  : 0           Tx Get Response count   : 0
Rx Traps count         : 0           Tx Traps count          : 0
Rx Read Onlys count    : 0
```

Output field description

Field	Description
<code>Rx Pkts count</code>	The total number of messages delivered to the SNMP entity from the transport service.
<code>Tx Pkts count</code>	The total number of SNMP Messages which were passed from the SNMP protocol entity to the transport

	service.
<i>Rx Bad Versions count</i>	The total number of SNMP Messages which were delivered to the SNMP protocol entity and were for an unsupported SNMP version.
<i>Rx Bad Community count</i>	The total number of SNMP Messages delivered to the SNMP protocol entity which used a SNMP community name not known to said entity.
<i>Rx Bad Comm Uses count</i>	The total number of SNMP Messages delivered to the SNMP protocol entity which represented an SNMP operation which was not allowed by the SNMP community named in the Message.
<i>Rx ASN Errs count</i>	The total number of ASN.1 or BER errors encountered by the SNMP protocol entity when decoding received SNMP Messages.
<i>Rx Too Big count</i>	The total number of SNMP PDUs which were delivered to the SNMP protocol entity and for which the value of the error-status field is <i>tooBig</i> .
<i>Tx Too Big count count</i>	The total number of SNMP PDUs which were generated by the SNMP protocol entity and for which the value of the error-status field is <i>tooBig</i> .
<i>Rx NoSuchName count</i>	The total number of SNMP PDUs which were delivered to the SNMP protocol entity and for which the value of the error-status field is <i>noSuchName</i>
<i>Tx NoSuchName count</i>	The total number of SNMP PDUs which were generated by the SNMP protocol entity and for which the value of the error-status field is <i>noSuchName</i>
<i>Rx Bad Values count</i>	The total number of SNMP PDUs which were delivered to the SNMP protocol entity and for which the value of the error-status field is <i>Badvalue</i>
<i>Tx Bad Values count</i>	The total number of SNMP PDUs which were generated by the SNMP protocol entity and for which the value of the error-status field is <i>BadValue</i> .
<i>Rx Gen Errs count</i>	The total number of SNMP PDUs which were delivered to the SNMP protocol entity and for which the value of the error-status field is <i>genErr</i> .
<i>Tx Gen Errors count</i>	The total number of SNMP PDUs which were generated by the SNMP protocol entity and for which the value of the error-status field is <i>genErr</i> '
<i>Rx Tot Req Vars count</i>	The total number of MIB objects which have been retrieved successfully by the SNMP protocol entity as the result of receiving valid SNMP Get-Request and Get-Next PDUs
<i>Rx Tot Set Vars count</i>	The total number of MIB objects which have been altered successfully by the SNMP protocol entity as the result of receiving valid SNMP Set-Request PDUs
<i>Rx Get Requests count</i>	The total number of SNMP Get-Request PDUs which have been accepted and processed by the SNMP protocol entity
<i>Tx Get Requests count</i>	The total number of SNMP Get-Request PDUs which have been generated by the SNMP protocol entity.
<i>Rx Get Next Req count</i>	The total number of SNMP Get-Next PDUs which have been accepted and processed by the SNMP protocol entity
<i>Tx Get Next Req count</i>	The total number of SNMP Get-Next Request PDUs which have been generated by the SNMP protocol entity
<i>Rx Set Requests count</i>	The total number of SNMP Set-Request PDUs which have been accepted and processed by the SNMP protocol entity
<i>Tx Set Requests count</i>	The total number of SNMP Set-Request PDUs which have been generated by the SNMP protocol entity.

<i>Rx Get Response count</i>	The total number of SNMP Get-Response PDUs which have been accepted and processed by the SNMP protocol entity.
<i>Tx Get Response count</i>	The total number of SNMP Get-Response PDUs which have been generated by the SNMP protocol entity
<i>Rx Traps count</i>	The total number of SNMP Trap PDUs which have been accepted and processed by the SNMP protocol entity
<i>Tx Traps count</i>	The total number of SNMP Trap PDUs which have been generated by the SNMP protocol entity.
<i>Rx Read Onlys count</i>	The total number valid SNMP PDUs which were delivered to the SNMP protocol entity and for which the value of the error-status field is readOnly.

Caution

None.

References

- ❖ *snmp host* related commands
- ❖ *snmp trap* related commands
- ❖ *snmp comm* related commands
- ❖ *snmp stats* related commands.

3.192 get snmp trap

Description

Use this command to get the SNMP trap status and check whether it is enabled or disabled.

Command Syntax

get snmp trap

Parameters

None.

Mode

Super-User, User

Example

\$ get snmp trap

Output

Snmp Trap Enabled

Output field description

Field	Description
<i>Snmp Trap</i>	This is the SNMP Trap Status. It may be: <i>Enabled</i> , <i>Disabled</i>

Caution

None.

References

- ❖ *modify snmp trap* command
- ❖ *snmp host related* commands
- ❖ *snmp comm related* commands
- ❖ *snmp stats related* commands.

3.193 get sntp cfg

Description

Use this command to get SNTP configuration information.

Command Syntax

get sntp cfg

Parameters

None

Mode

Super-User, User

Example

\$ get sntp cfg

Output

Status : Enable

Output field description

Field	Description
-------	-------------

<i>Status</i>	SNTP service is enabled or disabled.
---------------	--------------------------------------

Caution

None.

References

- ❖ *create sntp servaddr* command
- ❖ *delete sntp servaddr* command
- ❖ *modify sntp cfg* command
- ❖ *get sntp cfg* command
- ❖ *get sntp stats* command
- ❖ *reset sntp stats* command

3.194 get sntp servaddr

Description

Use this command to get SNTP server address information.

Command Syntax

get sntp servaddr [*<ip-address>* | *dname <domain-name>*]

Parameters

Name	Description
<i><ip-address></i> <i>dname <domain-name></i>	This parameter specifies the IP address or fully qualified domain name of the SNTP server for which information is required. Type: Optional Valid values: Valid IP address or fully qualified domain name.

Mode

Super-User, User

Example

```
$ get sntp servaddr 192.68.1.1
```

Output

```
Server Addr : 192.168.1.1      Status : Active  
Domain Name : abc.com
```

Output field description

Field	Description
<i>Server Addr</i>	IP address of the SNTP server.
<i>Status</i>	Operational Status of the SNTP server address entry.
<i>Domain Name</i>	The fully qualified domain name of the SNTP server.

Caution

None.

References

- ❖ `create sntp servaddr` command
- ❖ `delete sntp servaddr` command
- ❖ `modify sntp cfg` command
- ❖ `get sntp cfg` command
- ❖ `get sntp stats` command
- ❖ `reset sntp stats` command

3.195 get sntp stats

Description

Use this command to get statistical information about SNTP.

Command Syntax

```
get sntp stats [<ip-address> | dname <domain-name>]
```

Parameters

None

Mode

Super-User, User

Example

```
$ get sntp stats
```

Output

```
Requests count      : 20      Response count      : 19  
Invalid Response count : 19      Lost Response count : 20  
Last Time Stamp [MM/DD/YYYY::HH:MM:SS] : 01/01/2002:00:00:00
```

Output field description

Field	Description
<i>Requests count</i>	Number of SNTP Requests sent to SNTP server.
<i>Response count</i>	Number of valid SNTP responses received from SNTP server.
<i>Invalid Response count</i>	Number of Invalid SNTP Responses received from SNTP server.
<i>Lost Response count</i>	The number of lost responses against the SNTP request
<i>Last Time Stamp</i>	Time at which the local clock was last set or corrected.

Caution

None.

References

- ❖ `create sntp servaddr` command
- ❖ `delete sntp servaddr` command
- ❖ `get sntp servaddr` command
- ❖ `modify sntp cfg` command
- ❖ `get sntp cfg` command
- ❖ `reset sntp stats` command

3.196 get stp info

Description

Use this command to display the current status of the Spanning Tree Protocol Group.

Command Syntax

`get stp info`

Parameters

None.

Mode

Super-User, User

Example**\$ get stp info****Output**

```

Protocol Spec.      : IEEE 8021D          Priority          :
0x8000
Top. Changes       : 1                  Curr Top.
Age(sec)          : 35.0
Desig Root        : 80:00:00:10:5A:6C:DB:20  Root Cost          : 0
Root If-name      : None                Hold Time (sec)
                  : 1.0
Br Max Age(sec)   : 20                  Curr Max Age (sec)
                  : 20.0
Br Hello Time(sec): 2                  Curr Hello
Time(sec)         : 2.0
Br Fwd Delay(sec) : 15                  Curr Fwd Delay (sec)
                  : 15.0
Status            : Enable

```

Output field description

Field	Description
<i>Protocol Spec</i>	This indicates the Spanning Tree Protocol running. It may be: DECLB100, IEEE 8021D, Unknown
<i>Priority</i>	Bridge Priority. It is equal to the value of the 1 st 2 octets of the designated Bridge Id. The value as given in 'bridge static' commands represents the last 6 octets of the Id.
<i>Top. Changes</i>	This specifies the number of times the topology was changed since reset
<i>Curr Top. Age (Sec)</i>	This specifies the time elapsed (in seconds) since the last topology change
<i>Desig Root</i>	This specifies The Bridge Id of the root of the spanning tree as determined by the STP running on this node. This value is used as the Root Identifier parameter in all Configuration Bridge PDUs originated by this node.
<i>Root Cost</i>	The cost of the path to the root as seen from this bridge
<i>Root If-name</i>	The interface which offers the lowest cost path from this bridge to the root bridge
<i>Hold Time (Sec)</i>	This minimum time interval in seconds, between two Configuration bridge PDUs transmitted by this node.
<i>Br Max Age (Sec)</i>	The maximum age (in seconds) of Spanning Tree Protocol information learned from the network on any port before it is discarded when this Bridge is the root of the Spanning Tree. It may range between 6 and 40.
<i>Curr Max Age (Sec)</i>	The actual maximum age (in seconds) of Spanning Tree Protocol information learned from the network on any port before it is discarded. It is derived from the Br Max Age of the Root Node. 802.1D-1990 specifies that the range for this parameter is related to the value of "Br Hello Time"
<i>Br Hello Time (Sec)</i>	The value (in seconds) that all bridges use for Hello-Time when this bridge is acting as the root. It may range between: 1 and 10
<i>Curr Hello Time (Sec)</i>	The actual amount of time between the transmission of Configuration bridge PDUs by this node on any port

<i>Br Fwd Delay (Sec)</i>	The value (in seconds) that all bridges use for Forward Delay when this bridge is acting as the root. 802.1D-1990 specifies that the range for this parameter is related to the value of "Br Max Age". It may range between: 4 and 30
<i>Curr Fwd Delay (Sec)</i>	This actual time value, (in seconds) which determines how fast a port changes its spanning state when moving towards the Forwarding state. It is used to determine how long the port stays in each of the Listening and Learning states, which precede the Forwarding state. It is also used when a topology change has been detected and is underway, to age all dynamic entries in the Forwarding Database.
<i>Status</i>	Global status of STP

Caution

None.

References

- ❖ `modify stp global` command
- ❖ `stp port related` commands.

3.197 get stp port

Description

Use this command to display port specific information for the Spanning Tree Protocol, for all ports, or for the specified port.

Command Syntax

`get stp port [ifname interface-name]`

Parameters

Name	Description
<i>ifname interface-name</i>	The port for which this entry contains Spanning Tree Protocol management information. If no interface name is specified, then information for all entries is displayed. Type: Optional Valid values: <i>eth-0, aa15-0 - *</i>

Mode

Super-User, User

Example

```
$ get stp port ifname eth-0
```

Output

```
Port Name      : eth-0                Priority       : 0x0
State         : Forwarding          Status        : Enable
Path Cost     : 100                Desig Cost    : 0
Desig Root    : 00:20:00:10:5A:6C:DB:20  Desig Bridge  : 00:20:00:10:5A:6C:DB:20
Desig Port    : 0x0020             Fwd Transitions : 2
```

Output field description

Field	Description
<i>Port Name</i>	The port for which this entry contains Spanning Tree Protocol management information
<i>Priority</i>	Port Priority. It is contained in the first octet of the 2 octet Port Id. The other octet is used to derive the port name above.
<i>State</i>	The port's current state for STP. This state controls what action a port takes on reception of a frame. For example, a malfunctioning port will be placed in the broken state. The valid values are: Disabled, Blocking, Listening, Learning, Forwarding, Broken
<i>Status</i>	The Admin Status of the port. The possible values are: <i>Enable, Disable</i>
<i>Path Cost</i>	The contribution of this port to the path cost of paths towards the spanning tree root which included this port. 802.1D-1990 recommends that the default value of this parameter be in inverse proportion to the speed of the attached LAN.
<i>Desig Cost</i>	The path cost of the Designated Port of the segment connected to this port. This value is compared to the Root Path Cost field in received
<i>Desig Root</i>	The unique Bridge Identifier of the Bridge recorded as the Root in the Configuration BPDUs transmitted by the Designated Bridge for the segment to which the port is attached
<i>Desig Bridge</i>	The Bridge Identifier of the bridge which this port considers to be the Designated Bridge for this port's segment
<i>Desig Port</i>	The Port Identifier of the port on the Designated Bridge for this port's segment
<i>Fwd Transitions</i>	The number of times this port has transitioned from the Learning state to the Forwarding state

Caution

None.

References

- ❖ *modify stp port* command
- ❖ *stp global* related commands
- ❖ *bridge ports* related commands

3.198 get system

Description

Use this command to display the system parameters.

Command Syntax

get system

Parameters

None.

Mode

Super-User, User

Example

\$ get system

Output

```
Model          : Titanium
Name           : Name of the unit
Domain Name    : globespanvirata.com
Description    : DSL Modem
Location       : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ 07701,U.S.A
Contact        : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ 07701,U.S.A
Vendor         : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ 07701,U.S.A
LogThreshold   : 0
Object-id      : 1.3.6.1.4.1.200
HwVersion      : 810012
SwVersion      : VIK-1.37.020618f/T93.3.16
DSL Version    : T93.3.16
System Time    : Thu Jan 01 00:00:10 1970
Time Zone      : GMT
DST            : Off
Services       : physical datalink internet end-to-end applications
UpTime (HH:MM:SS) : 0:0:10
```

Output field description

Field	Description
<i>Model</i>	This specifies the model-name of the system
<i>Name</i>	This specifies the host name of the modem
<i>Domain Name</i>	This specifies the domain name of this modem
<i>Description</i>	This is description of the DSL modem
<i>Location</i>	This specifies the physical location of this modem

<i>Contact</i>	This shows the textual identification of the contact person for this modem, together with information on how to contact this person.
<i>Vendor</i>	This shows the vendor-specific information
<i>LogThreshold</i>	This specifies the severity level of trap equal to or lower than which shall be logged. 1 is the lowest level representing critical traps.
<i>Object-id</i>	This shows the vendor's authoritative identification of the network management subsystem contained in the modem.
<i>HwVersion</i>	This specifies the hardware and firmware version of the modem
<i>SwVersion</i>	This specifies the software version of the modem
<i>DSL Version</i>	This specifies the DSL-version of the system
<i>System Time</i>	This shows the current system time.
<i>Time Zone</i>	This specifies the time zone that has been set on the modem.
<i>DST</i>	This specifies whether Daylight Saving Time has been enabled or not.
<i>Services</i>	This specifies the functionality provided by this modem. These may be: <i>physical, datalink, internet, end-to-end, applications</i>
<i>Up Time</i>	This specifies the time in Hours:Min:Sec since the modem was up

Caution

None.

References❖ *modify system* command**3.199 get tcp conn**

Description

Use this command to get all the TCP connection entries.

Command Syntax*get tcp conn***Parameters**

None.

Mode

Super-User, User

Example\$ *get tcp conn*

Output

Local Addr	Local Port	Remote Addr	Remote Port
192.168.1.11	80	202.34.4.5	80

Output field description

Field	Description
<i>Local Addr</i>	The local IP address for the TCP connection.
<i>Local Port</i>	The local port number for the TCP connection.
<i>Remote Addr</i>	The remote IP address for the TCP connection
<i>Remote Port</i>	The remote port number for the TCP connection.

Caution

None.

References

- ❖ `delete tcp conn` command
- ❖ `get tcp stats` command
- ❖ `get udp listen` command.

3.200 get tcp stats

Description

Use this command to display global TCP statistics.

Command Syntax

`get tcp stats`

Parameters

None.

Mode

Super-User, User

Example

`$ get tcp stats`

Output

```

ReTx Algorithm      : VANJ           ReTx Min Timeout(ms) : 250
ReTx Max Timeout(ms) : 240000       Max Connections      : 30
Active Opens       : 0             Passive Opens        : 0
Failed Attempts    : 0             Establish Resets     : 0
Current Establishes : 0           In Segments          : 0
Out Segments       : 0             ReTx Segments       : 0
In Errors          : 0             Out Resets           : 0

```

Output field description

Field	Description
<i>ReTx Algorithm</i>	The algorithm used to determine the timeout value used for retransmitting unacknowledged octets. It may be: <i>VANJ</i>
<i>ReTx Min Timeout</i>	The minimum value permitted by a TCP implementation for the retransmission timeout, measured in milliseconds
<i>ReTx Max Timeout</i>	The maximum value permitted by a TCP implementation for the retransmission timeout, measured in milliseconds
<i>Max Connections</i>	The limit on the total number of TCP connections the entity can support
<i>Active Opens</i>	The number of times TCP connections have made a direct transition to the SYN-SENT state from the CLOSED state
<i>Passive Opens</i>	The number of times TCP connections have made a direct transition to the SYN-RCVD state from the LISTEN state.
<i>Failed Attempts</i>	The number of times TCP connections have made a direct transition to the CLOSED state from either the SYN-SENT state or the SYN-RCVD state, plus the number of times TCP connections have made a direct transition to the LISTEN state from the SYN-RCVD state.
<i>Establish Resets</i>	The number of times TCP connections have made a direct transition to the CLOSED state from either the ESTABLISHED state or the CLOSE-WAIT state
<i>Current Establishes</i>	The number of TCP connections for which the current state is either ESTABLISHED or CLOSE-WAIT
<i>In Segments</i>	The total number of segments received, including those received in error. This count includes segments received on currently established connections
<i>Out Segments</i>	The total number of segments sent, including those on current connections but excluding those containing only retransmitted octets.
<i>ReTx Segments</i>	The total number of segments retransmitted - that is, the number of TCP segments transmitted containing one or more previously transmitted octets.
<i>In Errors</i>	The total number of segments received in error (e.g., bad TCP checksums).
<i>Out Resets</i>	The number of TCP segments sent containing the RST flag

Caution

None.

References

❖ `delete tcp conn` command

- ❖ `get tcp conn` command
- ❖ `get udp stats` command
- ❖ `get icmp stats` command.

3.201 `get trace cfg`

Description

Use this command to display the trace configuration for a specific module or for all modules.

Command Syntax

```
get trace cfg [module module-name|all]
```

Parameters

Name	Description
<code>module module-name all</code>	This is a string representing the trace stream the information pertaining to which is to be displayed. If no module name is specified then information for all is displayed. Type: Optional Valid values: <i>GCOS, ALPS, MEA5, OAM, CIN, and so on</i>

Mode

Super-User, User

Example

```
$ get trace cfg module GAG
```

Output

Module	Flow	Level	Type	Destn	Port
GAG	0x0	0x0	Stdout	0.0.0.0	0

Output field description

Field	Description
Module	This specifies the module for trace/log config whose information is being displayed: It can be: GCOS, ALPS, MEA5, OAM, CIN, GAG, CDB, LED, CLI, SAG, HAG, PPE, ATM, DCL, EOA, TBG, PPP, EMAC, DSL, USB, SPI, NVM, SPAN, SSI
Flow	This indicates a Hexadecimal bitmask which sets the filter for trace flow.
Level	This indicates a Hexadecimal bitmask which sets the filter for trace level.

<i>Type</i>	This specifies the type of logging to be done. It may be: Syslog, Net, Std-out
<i>Destn</i>	This specifies the IP address for host for logging for trace type syslog and net. It is invalid incase of trace type stdout
<i>Port</i>	Port number on which host is listening for trace info to be logged incase of trace type syslog and net. It is invalid incase of trace type stdout

Caution

None.

References

- ❖ *modify trace cfg* command
- ❖ *get trace stats* command.

3.202 get trace stats

Description

Use this command to display trace statistics.

Command Syntax

get trace stats

Parameters

None.

Mode

Super-User, User

Example

\$ get trace stats

Output

```
Bytes Logged: 2744           Bytes Discarded : 40595
Msgs Logged : 19           Msgs Discarded : 1045
```

Output field description

Field	Description
<i>Bytes Logged</i>	This specifies the number of bytes logged by the tracing/logging module
<i>Bytes Discarded</i>	This specifies the number of bytes discarded by the tracing/

	logging module due to filtering
<i>Msgs Logged</i>	This specifies the number of message logged by the tracing/ logging module
<i>Msgs Discarded</i>	This specifies the number of messages discarded by the tracing/logging module due to filtering

Caution

None.

References

- ❖ `get trace cfg` command
- ❖ `modify trace cfg` command

3.203 get traps

Description

This command can be used to get the listing of all traps or the last few traps.

Command Syntax

`get traps [num-of-traps]`

Parameters

Name	Description
num-of-traps	This specifies the maximum number of (entries) traps to be displayed from trap log table; if not specified then all entries are displayed. Type: Optional Valid values: 0 to 4294967295

Mode

Super-User, User

Example

`$ get traps`

Output

```
Thu Jan 01 00:00:13 1970 : STATUS ALARM : ATM VC Up :Interface Name- aa15-0
```

Output field description

The output fields in this command are separated by a “:”

Field	Description
<i>Trap time</i>	This specifies the time at which the trap was logged.
<i>Trap severity</i>	This specifies the severity level of the trap. It can be – CRITICAL ALARM MAJOR ALARM WARNING STATUS ALARM IPOA Interface Up/Down
<i>Trap name</i>	This specifies the name of the trap. It can be – <i>System Init Failed</i> - This trap is originated at the time of system initialization failures. The failure could be due to an internal error or due to a wrong/corrupted configuration file. Trap parameters are <i>Module</i> and <i>Cause</i> . <i>System Up</i> - This trap is originated after the modem boots up successfully. <i>DSL Interface Up</i> - This trap indicates that the DSL loop is up. <i>DSL Interface Down</i> - This trap indicates that the DSL loop is down. <i>ATM Interface Up</i> - This trap indicates that the ATM port is operationally up. Trap parameter is <i>Interface No</i> . <i>ATM Interface Down</i> - This trap indicates that the ATM port is operationally down. Trap parameter is <i>Interface No</i> . <i>ETHER Interface Up</i> - This trap indicates that the Ethernet port is operationally up. Trap parameter is <i>Interface No</i> . <i>ETHER Interface Down</i> - This trap indicates that the Ethernet port is operationally down. Trap parameter is <i>Interface No</i> . <i>ATM VC Up</i> - This trap indicates that the ATM VC is operationally up. Trap parameter is <i>Interface Name</i> . <i>ATM VC Down</i> - This trap indicates that the ATM VC is operationally down. Trap parameter is <i>Interface Name</i> . <i>PPP Interface Up</i> - This trap indicates that the PPP link is operationally up. Trap parameter is <i>Interface No</i> . <i>PPP Interface Down</i> - This trap indicates that the PPP link is operationally down. Trap parameter is <i>Interface No</i> . <i>ATM VC Congested</i> - This trap indicates that the ATM VC is congested. Trap parameter is <i>Interface Name</i> . <i>PPP Authorization Failed</i> - This trap indicates that the PPP user authorization with peer has failed. Trap parameter is <i>Interface No</i> . <i>User Authorization Failed</i> - This trap indicates that the modem's user authentication has failed. Trap parameter is <i><user name></i> . <i>DHCP Server Address Pool Threshold Low</i> - This trap indicates that number of free ip addresses in a pool has gone below the threshold set for the pool by the user. Trap parameter is <i>IP</i> . <i>DHCP Server Duplicate Address Request</i> - This trap indicates that the DHCP server tried to assign an IP address from one of its pools to a client but found that the address was already being used by some host on the LAN (without the DHCP server's knowledge). The server then marks this address as allocated in its pool and doesn't try to assign it to a client again. Trap parameter is <i>IP</i> . <i>Failed To Get IP Address</i> - This trap indicates that DHCP client or PPP link couldn't get an ip address from DHCP server or remote peer respectively. Trap parameter is <i>Interface No</i> . <i>DHCP Server Intf Create Failed</i> - This trap indicates that DHCP server could not be enabled on an interface. Trap parameter is <i>Interface No</i> . <i>DHCP Relay Intf Create Failed</i> - This trap indicates that DHCP relay could not be enabled on an interface. Trap parameter is <i>Interface No</i> . <i>Raw Filter Intf Create Failed</i> - This trap indicates that raw filter could

	not be enabled on an interface. Trap parameter is <i>Interface No.</i>
<p>Trap Name (cont'd)</p>	<p>Cold Start recvd from ILMI NW side – This trap indicates that cold start has been received from network side. Trap parameter is <i>Interface No.</i></p> <p>VCC change recvd from ILMI NW side - This trap indicates that the VCC change trap has been received from network side. Trap parameters are <i>Port, VPI</i> and <i>VCI</i>.</p> <p>Ilmi AC - Config Mismatch - This trap indicates that there is a difference in the configuration of at least one VC between the local copy (retrieved earlier from network side) and the current retrieved copy. The difference could be addition, deletion or modification of one or more VC at the network-side. In this condition, the system comes up with the retrieved configuration along with the user configured VCs. If this trap is generated immediately after the system is started then the user should reconfigure the interfaces above the VCs such as EOA, PPP and so on, as the procedure discards local configuration above VCs. However, if this trap is followed by <i>Ilmi AC initiated - Link up</i> trap, it indicates that the procedure has detected a difference between the configuration at network side and the local configuration. To retrieve the latest configuration, the user should reboot the system. Trap parameters are <i>Port, VPI</i> and <i>VCI</i>.</p> <p>Ilmi AC - Unsupported Protocol - This trap indicates that the modem does not support the given layer-2/layer-3 access protocol. Trap parameters are <i>Port, ProtID, Layer-2/Layer-3</i>.</p> <p>Ilmi AC - Unsupported Svc category - This trap indicates that traffic descriptor parameter(s) received for given VC is not supported. Trap parameters are <i>Port, VPI</i> and <i>VCI</i>.</p> <p>Ilmi AC - AAL not supported - This trap indicates that AAL type for given VC is not supported. Trap parameters are <i>Port, VPI</i> and <i>VCI</i>.</p> <p>Ilmi AC - Invalid Vpi/Vci - This trap indicates that the VPI and VCI values are greater than those supported. Trap parameters are <i>Port, VPI</i> and <i>VCI</i>.</p> <p>Ilmi AC - Max VCCs limit exceeded - This trap indicates that the VCs received from network side are more than supported. Trap parameter is <i>Interface No.</i></p> <p>Ilmi AC - Incomp Config - This trap indicates that the entries corresponding to index are not present either in AAL or in Service type table. Trap parameters are <i>Port, VPI, VCI</i> and <i>Tbl</i>.</p> <p>Ilmi AC - Inconsistent Information - This trap indicates that the configuration information received from network side is inconsistent. Trap parameter is <i>Interface No.</i></p> <p>Ilmi AC - System Up from Local Copy - This trap indicates that ILMI auto configuration could not be started because of ATM link being down and that the system has come up with the local copy. Trap parameter is <i>Interface No.</i></p> <p>Ilmi AC initiated - Link up - This trap indicates that ILMI auto configuration has started its operation after the link has come up. Trap parameter is <i>Interface No.</i></p> <p>Ilmi connection lost with network side – This trap indicates that ILMI connectivity with network side has been lost. Trap parameter is <i>Interface No.</i></p> <p>USB Interface Up: This trap indicates that the USB port is operationally up. The trap parameter is <i>Interface No.</i></p>
<p>Trap Name (cont'd)</p>	<p>USB Interface Down: This trap indicates that the USB port is operationally down. The trap parameter is <i>Interface No.</i></p> <p>LOFS Threshold: This trap indicates that Loss of Framing threshold has reached. The trap parameters are the current and threshold values.</p> <p>LOSS Threshold: This trap indicates that Loss of Signal threshold has reached. The trap parameters are the current and threshold values.</p> <p>ESS Threshold: This trap indicates that Errored Seconds threshold</p>

	<p>has reached. The trap parameters are the current and threshold values.</p> <p>SES Threshold: This trap indicates that Severely Errored Seconds threshold has reached. The trap parameters are the current and threshold values.</p> <p>UAS Threshold: This trap indicates that Unavailable Errored Seconds threshold has reached. The trap parameters are the current and threshold values.</p> <p>SVC Created: This trap indicates that the SVC has been created. The trap parameters are ATM port, VPI & VCI values.</p> <p>SVC Deleted: This trap indicates that the SVC has been deleted. The trap parameters are VC If index, ATM port, VPI & VCI values.</p> <p>SVC Creation Failed: This trap indicates that the SVC creation has failed. The trap parameters are VC If index and fail cause.</p> <p>IPOA Interface Up: This trap indicates that the IPOA interface is operationally up. The trap parameter is Interface No.</p> <p>IPOA Interface Down: This trap indicates that the IPOA interface is operationally down. The trap parameter is Interface No.</p> <p>ADET Successful: This trap indicates that Auto Detection is successful. There are no trap parameters.</p> <p>ADET Failed: This trap indicates that Auto Detection has failed. There are no trap parameters.</p> <p>ADET Invalid Entry: During an autodetect configuration procedure, this trap indicates that some entry in the autoconfiguration file is incorrect.</p> <p>L2TP Tunnel Up: This trap indicates that the L2TP tunnel is operationally up. The trap parameter is tunnel if index.</p> <p>L2TP Tunnel Down: This trap indicates that the L2TP tunnel is operationally down. The trap parameter is tunnel if index.</p> <p>L2TP Session Up: This trap indicates that the L2TP session is operationally up. The trap parameter is session if index.</p> <p>L2TP Session Down: This trap indicates that the L2TP session is operationally down. The trap parameter is session if index.</p> <p>Hardware Reboot: When a reboot is given or the reset button is pressed, this trap indicates that the system is verifying whether there is any task writing anything into the flash. If there is, then the system waits for the flash access to finish before initiating the reboot.</p> <p>PPPOE Interface Up: This trap indicates that the PPPOE interface is operationally up. The trap parameter is Interface No.</p> <p>PPPOE Interface Down: This trap indicates that the PPPOE interface is operationally down. The trap parameter is Interface No.</p>
<p>Trap Name (cont'd)</p>	<p>PPP Authorization Successful: This trap indicates that the PPP user authorization with the peer has succeeded. The trap parameter is Interface No.</p> <p>SAAL Up: This trap indicates that SAAL is operationally up.</p> <p>SAAL Down: This trap indicates that SAAL is operationally down.</p> <p>System Memory Low: This trap indicates that the system memory is running low. The trap parameter is the free system memory.</p>
<p>Trap parameters</p>	<p>This specifies additional parameters describing the trap. Different traps have different combinations of trap parameters. There are also some traps with no additional parameters. The parameters can be -</p> <p>Module - <module name> Cause - <failure cause> Interface No - <interface index> Interface Name - <interface name> <user name> IP - <IP address> Port - <port number> VPI - <vpi> VCI - <vci> Tbl - <table name> ProtID - <protocol number></p>

<Layer-2/Layer-3>

Caution

None.

References

- ❖ *reset traps* command.
- ❖ *logthresh* parameter in *modify system* and *get system* commands

3.204 get trapprints

Description

Use this command to get the current status of trap prints on CLI.

Command Syntax

get trapprints

Parameters

None

Mode

Super-User, User

Example

\$ get trapprints

Output

Trap Prints Enabled

Output field description

None

Caution

None.

References

- ❖ *modify trapprints* command

3.205 get udp listen

Description

This command is used to display UDP listener table entries.

Command Syntax

get udp listen

Parameters

None.

Mode

Super-User, User

Example

\$ get udp listen

Output

```
Local Addr          Local Port
-----
0.0.0.0             161
127.0.0.1           6005
127.0.0.1           6006
127.0.0.1           6007
127.0.0.1           6008
```

Output field description

Name	Description
<i>Local Addr</i>	The local IP address for this UDP listener. In the case of a UDP listener which is willing to accept datagrams for any IP interface associated with the node, the value 0.0.0.0 is used.
<i>Local Port</i>	The local port number for this UDP listener.

Caution

None.

References

- ❖ *delete tcp conn* command
- ❖ *get tcp conn* command
- ❖ *get udp stats* command.

3.206 get udp stats

Description

Use this command to display global UDP statistics.

Command Syntax

get udp stats

Parameters

None.

Mode

Super-User, User

Example

\$ get udp stats

Output

```
In Datagrams : 4           Out Datagrams           : 4
In Errors    : 0           Invalid Port Datagrams : 0
```

Output field description

Field	Description
<i>In Datagrams</i>	The total number of UDP datagrams delivered to UDP users.
<i>Out Datagrams</i>	The total number of UDP datagrams sent from this entity.
<i>In Errors</i>	The number of received UDP datagrams that could not be delivered for reasons other than the lack of an application at the destination port.
<i>Ports</i>	The total number of received UDP datagrams for which there was no application at the destination port.

Caution

None.

References

- ❖ *delete tcp conn* command
- ❖ *get tcp conn* command
- ❖ *get udp stats* command

- ❖ `get tcp stats` command
- ❖ `get udp listen` command
- ❖ `get icmp stats` command.

3.207 `get usagectrl`

Description

Use this command to get Usage Control Configuration.

Command Syntax

`get usagectrl`

Parameters

None

Mode

Super-User, User

Example

`$ get usagectrl`

Output

Verbose mode on/off

```
Max Data Users      Status
-----
5                   disable
```

Output field description

Field	Description
<i>Max Data Users</i>	This field specifies the maximum number of data users, which can have simultaneous access to the WAN side.
<i>Status</i>	This field specifies the status of usage control.

Caution

None.

References

- ❖ `modify usagectrl` command

- ❖ `get datauserslist` command
- ❖ `reset datauserslist` command.

3.208 get usb stats

Description

Use this command to get statistical information about a specific or all USB interfaces.

Command Syntax

`get usb stats [ifname interface-name]`

Parameters

Name	Description
<code>ifname interface-name</code>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid USB interfaces is displayed. Type: Optional Valid values: <code>usb-0</code> .

Mode

Super-User, User

Example

```
$ get usb intf ifname usb-0
```

Output

```
If-Name      : usb-0
Mode         : PA
Tx Correct Frames count   : 3      Tx Error Frames count       : 3
Rx Correct Frames count   : 2      Rx Error Frames count       : 2
Tx Dir Mode Bytes count   : 0      Tx Dir Mode Frames count    : 0
Rx Dir Mode Bytes count   : 0      Rx Dir Mode Frames count    : 0
Tx Mcast Mode Bytes count : 5000   Tx Mcast Mode Frames count   : 50
Rx Mcast Mode Bytes count : 6000   Rx Mcast Mode Frames count   : 60
Tx Bcast Mode Bytes count : 4000   Tx Bcast Mode Frames count   : 45
Rx Bcast Mode Bytes count : 5000   Rx Bcast Mode Frames count   : 50
"Mode : P - Promiscuous, A - All MCast, M - MultiCast, B - BroadCast,
      D - Directed"
```

Output field description

Field	Description
<code>If-Name</code>	This specifies the physical Interface name: It can

	be: <i>usb-0</i>
<i>Mode</i>	The mode of the USB interface specified (<i>Promiscuous/Direct/ Broadcast/Multicast/Simplex</i>).
<i>Tx correct Frames count</i>	The number of Frames Transmitted OK
<i>Rx correct Frames count</i>	The number of Frames Received OK
<i>Tx Error Frames count</i>	The number of Frames Transmitted with Error
<i>Rx Error Frames count</i>	The number of Frames Received with Error
<i>Dir Mode Tx Bytes count</i>	The number of Bytes Transmitted in Directed Mode.
<i>Dir Mode Tx Frames count</i>	The number of Frames Transmitted in Directed Mode
<i>Dir Mode Rx Bytes count</i>	The number of Bytes Received in Directed Mode
<i>Dir Mode Rx Frames count</i>	The number of Frames Received in Directed Mode
<i>Mcast Mode Tx Bytes count</i>	The number of Bytes Transmitted in Multicast Mode
<i>Mcast Mode Tx Frames count</i>	The number of Frames Transmitted in Multicast Mode
<i>Mcast Mode Rx Bytes count</i>	The number of Bytes Received in Multicast Mode
<i>Mcast Mode Rx Frames count</i>	The number of Frames Received in Multicast Mode
<i>Bcast Mode Tx Bytes count</i>	The number of Bytes Transmitted in Broadcast Mode
<i>Bcast Mode Tx Frames count</i>	The number of Frames Transmitted in Broadcast Mode
<i>Bcast Mode Rx Bytes count</i>	The number of Bytes Received in Broadcast Mode
<i>Bcast Mode Rx Frames count</i>	The number of Frames Received in Broadcast Mode.
<i>Mode</i>	The mode flag of the USB interface specified - PAMBD. P - Promiscuous A - All MCast M - MultiCast B - BroadCast D - Directed

Caution

None.

References

- ❖ `create usb intf` command
- ❖ `delete usb intf` command
- ❖ `modify usb intf` command
- ❖ `get usb intf` command.

3.209 get usb intf**Description**

Use this command to get information on a particular USB interface or on all the USB interfaces.

Command Syntax

```
get usb intf [ifname interface-name]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid USB interfaces is displayed. Type: Optional Valid values: <i>usb-0</i> .

Mode

Super-User, User

Example

```
$ get usb intf ifname usb-0
```

Output

IfName	If SecType	Ip Address	Mask	Nat Dir	Oper
usb-0	Public	192.168.1.1	255.255.255.0	Inside	Down

Output field description

Field	Description
<i>IfName</i>	The name of the interface, which has been created.
<i>Ip Address</i>	IP address assigned to the USB interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>Nat Dir</i>	This specifies the NAT direction, which may be: <i>inside, outside or none</i> .
<i>Oper</i>	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>
<i>If SecType</i>	Interface security type

Caution

None.

References

- ❖ `create usb intf` command
- ❖ `delete usb intf` command
- ❖ `modify usb intf` command
- ❖ `get usb stats` command

3.210 get user

Description

Use this command to display information of all the users. Password information is not displayed.

Command Syntax

`get user`

Parameters

None.

Mode

Super-User, Intermediate, User

Example

`$ get user`

Output

```
Privilege      UserName
-----
root           iad
user           user1
```

Output field description

Field	Description
<i>UserName</i>	This represents the valid user logins for the modem.
<i>Privilege</i>	This represents the privilege level associated with the user logins. It may be: <i>user</i> , <i>intermediate</i> , <i>root</i> . In CLI, intermediate privilege has the same privileges as the user. In HTTP, the intermediate privilege has ALL the privileges as the "user" except that he can also modify the ATM VPI and VCI values and the PPP username and password.

Caution

None.

References

- ❖ *delete user* command
- ❖ *create user* command
- ❖ *passwd* command

3.211 help

Description

Use this command for a listing of all the user inputs permissible at the point. In case Help is asked for as a parameter of any incomplete command then it displays a list of all the pending/Extra parameters input by the user. In all other cases the next set of permissible keywords required in order to shortlist a command displays. The incomplete command keyed in by the user is made available again after the help.

Command Syntax

help?
OR
<Any Incomplete Command>?

Parameters

None.

Mode

Super-User, User.

Example

An example session is shown.

```
$help
Command      Description
-----
alias        To Alias a command
commit       Commit the active config to the flash
create       Create a new entry of specified type
delete       Delete the specified entry
.
.
```

```
$delete ?
Command      Description
-----
arp          IP Net To Media Table
atm          ATM Commands
bridge       Bridge Commands
dhcp         DHCP Commands
.
.
```

```
$delete dhcp ?
Command      Description
-----
relay        DHCP Relay Commands
server       DHCP Server Commands

$delete dhcp server ?
Command      Description
-----
exclude      DHCP Server Pool Exclusion Table
host         DHCP Server Host Table
pool         DHCP Server Pool/ Range Table

$delete dhcp server exclude ?
Parameter    Description
-----
pool <decvalue> Pool Identifier
ip <ddd.ddd.ddd.ddd> IP Address to be excluded

$delete dhcp server exclude pool 3 ?
Parameter    Description
-----
ip <ddd.ddd.ddd.ddd> IP Address to be excluded

$delete dhcp server exclude pool 3 ip 1.1.1.1 ?
Command is complete
$delete dhcp server exclude pool 3 ip 1.1.1.1
```

Output field description

None.

Caution

Currently help cannot be asked for between a parameter name and its value. Thus, in the above example if user asked for help after `ip` then an error would result.

References

None.

3.212 list

Description

This command is used to list the Configuration or binary files stored on the modem

Command Syntax

list

Parameters

None.

Mode

Super-User.

Example

```
$ list
```

Output

Verbose Mode On

```
myconfig.cfg  
newcode.bin
```

Verbose Mode Off

```
myconfig.cfg  
newcode.bin
```

Output field description

The output shows the configuration and binary files stored on the modem.

Caution

None.

References

- ❖ `get autoupdate` command
- ❖ `modify autoupdate` command
- ❖ `remove` command.
- ❖ `apply` command.
- ❖ `download` command.

3.213 logout

Description

Use this command to exit from the CLI shell.

Command Syntax

```
Logout|quit|exit
```

Parameters

None.

Mode

Super-User, User

Example

\$ logout

Output

None.

Output field description

None.

Caution

None.

References

None.

3.214 memset

Description

This command writes single byte data into each of the first n bytes starting from address specified by addr. Value of n is specified by len.

Command Syntax

memset [VREG|NREG|NONE] addr addr [len len] [data data]

Parameters

Name	Description
<i>[VREG NREG NONE]</i>	This indicates that offset is from VREG_BASE/ NREG_BASE. If NONE is specified, the base address is taken as 0. Type: Optional Valid values: VREG, NREG or NONE Default Value: NONE.
<i>addr addr</i>	addr is from where the data is to be written. Type: Mandatory Valid Values: valid memory address.
<i>len len</i>	Length is the number of bytes that are to be written at the specified location Type: Optional. Valid values: 1 - 200

	Default Value: 1
<i>data data</i>	Data is value that is to be written at the specified memory location. This should be specified in hexadecimal format. Type: Optional Valid values: 1 byte. Default Value: 0

Mode

Super-User, User.

Example

```
$ memset NREG addr 9000 len 30 data 0x20
```

Output

None

Output field description

None

Caution

None.

References

- ❖ *rdf* command
- ❖ *rdm* command
- ❖ *wrm* command

3.215 modify atm port

Description

Use this command to enable or disable the admin status of the atm port.

Command Syntax

```
modify atm port ifname interface-name {enable|disable}
```

Parameters

Name	Description
<i>ifname</i> interface-name	This specifies the ATM port being modified Type: Mandatory Valid values: <i>atm-0</i>
enable disable	The desired admin status of the ATM port Type: Mandatory Valid values: <i>enable, disable</i>

Mode

Super-User.

Example

\$ modify atm port ifname atm-0 disable

Output

Verbose Mode On

```

If-Name           : atm-0           MaxVccs           : 4
CBRPriority        : 5               UBRPriority        : 1
RTVBRPriority      : 4               NRTVBRPriority    : 3
GFRPriority        : 2               Latency           : fast
MaxConfVccs       : 0
OAMSrc            : 0xffffffffffffffffffffffffffffffff
Oper Status       : Down             Admin Status      : Up
    
```

Set Done

```

If-Name           : atm-0           MaxVccs           : 4
CBRPriority        : 5               UBRPriority        : 1
RTVBRPriority      : 4               NRTVBRPriority    : 3
GFRPriority        : 2               Latency           : fast
MaxConfVccs       : 0OAMSrc         : 0xffffffffffffffffffffffffffffffff
Oper Status       : Down             Admin Status      : Down
    
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>If-Name</i>	This specifies the name of the ATM port. It can be: <i>atm-0</i>
<i>MaxVccs</i>	This specifies The maximum number of VCCs (PVCCs and SVCCs) supported at this ATM interface. It may be: 0-64
<i>UBRPriority</i>	Priority of the best effort traffic. A value 0 means no traffic of this class is supported. Higher the value, higher the priority. It may be: 1-3
<i>GFRPriority</i>	This specifies the priority of GFR class. A value 0 means no traffic of this class is supported. Higher the value higher the priority. It may be: 1-3

<i>CBRPriority</i>	Priority of the CBR Class. Value 1 means lowest priority and higher the value higher the priority. It may be 1-3.
<i>Latency</i>	Type of DSL channel in use on the underlying DSL port. It may be: <i>fast, interleaved</i>
<i>MaxConFVccs</i>	This specifies the current number of VCCs configured on this port. It may be: 0 - value defined in MaxVccs
<i>OAMSrc</i>	Loop back source id assigned to the ATM port. The ATM port will respond to all loopback cells which carry this OAM id.
<i>Oper Status</i>	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>
<i>Admin Status</i>	The desired state of the interface. It may be either <i>Up</i> or <i>Down</i>

Caution

None.

References

- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *oam lpbk* command
- ❖ *atm port* related commands
- ❖ *atm statistics* related commands.

3.216 modify atm svccfg

Description

Use this command to modify atm svc configuration.

Command Syntax

modify atm svccfg ifname <interface-name> start|stop

Parameters

Name	Description
<i>ifname interface-name</i>	Interface name of the SVC to be configured Type: Mandatory Valid values: <i>atm-0</i>
<i>start stop</i>	This specifies the action to be taken on the svc interface Type: Mandatory Valid values: <i>start, stop</i>

Mode

Super-User.

Example

```
$ modify atm svccfg ifname aa15-0 start
```

Output

Verbose Mode On/Off

Set Done

Output field description

None

Caution

None.

References

- ❖ `create atm svccfg` commands
- ❖ `get atm svccfg` commands
- ❖ `delete atm svccfg` command

3.217 modify atm vc intf

Description

Use this command to enable or disable ATM VC.

Command Syntax

```
modify atm vc intf ifname interface-name {enable|disable|lpbk}
```

Parameters

Name	Description
<i>ifname interface-name</i>	Interface name of the VC being modified Type: Mandatory Valid values: aa15-0 - *
<i>Enable disable</i>	This specifies the Admin Status of the VC Type: Mandatory

Mode

Super-User.

Example

\$ modify atm vc intf ifname aal5-0 enable

Output

Verbose Mode On

```

LowIf          : atm-0          VPI              : 10          VCI
10
VC IfName      : aal5-0          VC Type          : PVC
Admin Status   : Down           Oper Status       : Down
Aal5 Tx Size   : 9200           Aal5 Rx Size     : 9200
AAL Type       : AAL5           AAL5 Encap       : LLC Mux
Max Aal5 Proto : 3              Trf Descr Index  : 2
VC Weight      : 10

Set Done

LowIf          : atm-0          VPI              : 10          VCI
: 10
VC IfName      : aal5-0          VC Type          : PVC
Admin Status   : Up            Oper Status       : Up
Aal5 Tx Size   : 9200           Aal5 Rx Size     : 9200
AAL Type       : AAL5           AAL5 Encap       : LLC Mux
Max Aal5 Proto : 3              Trf Descr Index  : 2
VC Weight      : 10
    
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Lowif</i>	Interface index of the underlying ATM port. It is always: <i>atm-0</i>
<i>VPI</i>	It is the Virtual Path Identifier.
<i>VCI</i>	It is the Virtual Circuit Identifier.
<i>VC If-Name</i>	Interface name of the VC being modified. It can be: <i>aal5-0, 11/5-1...</i>
<i>VC Type</i>	This field specifies whether VC type is PVC or SVC.
<i>Oper Status</i>	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>
<i>Admin Status</i>	The desired state of the interface. It may be either <i>Up</i> , <i>Down</i> or <i>Loopback</i> . <i>Loopback</i> has a special significance. A Loopback VC will loop back whatever cells it receives.
<i>Aal5 Tx Size</i>	This specifies the transmit CPCS SDU size to be used
<i>Aal5 Rx Size</i>	This specifies the receive CPCS SDU size to be used
<i>AAL Type</i>	AAL type in use for the VC
<i>AAL5 Encap</i>	This specifies the data multiplexing method to be used over the AAL5 SSSS layer. It may be: <i>VC Mux, LLC Mux</i>

<i>Max Aal5 Proto</i>	This specifies the maximum number of protocols that are supported over the VC
<i>Trf Descr Index</i>	This identifies the transmit traffic parameters in use. It corresponds to a valid entry in the traffic descriptor table
<i>VC Weight</i>	This specifies the priority of the VC. Higher value means higher priority

Caution

None.

References

- ❖ *atm vc intf* commands
- ❖ *atm trfdesc* commands
- ❖ *oam lpbk* command
- ❖ *atm port* commands
- ❖ *atm statistics* commands.

3.218 modify autodetect cfg

Description

Use this command to modify the status of automatic detect mode.

Command Syntax

```
modify autodetect cfg [enable|disable] [mode bridge|router]
[pppdetect padilcp|fullblown] [vcrange all|fromfile]
```

Parameters

Name	Description
<i>enable disable</i>	Status of the Automatic Detect Mode. Type: Mandatory Valid values: enable or disable Default value: enable
<i>mode bridge router</i>	This specifies whether modem is configured for bridging or routing mode Type: Optional Valid values: router or bridge
<i>pppdetect padilcp fullblown</i>	Auto detection procedure used. Type: Optional Valid values: padilcp or fullblown
<i>vcrange all fromfile</i>	Range of VC values for which auto detection procedure will be followed. Type: Optional Valid values: all or fromfile

Mode

Super-User

Example

```
$ modify autodetect cfg enable mode bridge
```

Output

Verbose Mode On:

```
Auto Detect Mode : Disable      Mode           : Router
Detect PPP       : PADI LCP     VC Range       : From file
```

Set Done

```
Auto Detect Mode : Enable      Mode           : Bridge
Detect PPP       : PADI LCP     VC Range       : From file
```

Verbose Mode Off:

Set Done

Output field description

Field	Description
<i>Auto Detect Mode</i>	Status of the Automatic Detect Mode.
<i>Mode</i>	This specifies whether modem is configured for bridging or routing mode.
<i>Detect PPP</i>	This specifies the auto detection procedure.
<i>VC Range</i>	This specifies the range of VC values for which auto detection procedure will be followed.

Caution

None

References

❖ `get autodetect cfg`

3.219 modify autoupdate

Description

Use this command to modify the autoupdate flag.

Command Syntax

`modify autoupdate true|false`

Parameters

Name	Description
<code>true false</code>	Desired autoupdate flag value. If it is <i>True</i> then any file downloaded using the <i>download command</i> is applied immediately after being downloaded (in case of a <i>.cfg</i> file its commands would be immediately executed; in case of a <i>.bin</i> file the code in it will get programmed into the flash and the modem will re-boot with the new code). If the flag is <i>False</i> then the file is simply downloaded and not executed Type: Mandatory Valid values: <i>true, false</i>

Mode

Super-User.

Example

```
$ modify autoupdate true
```

Output

Verbose Mode On

```
Auto Update    : False
```

```
Set Done
```

```
Auto Update    : True
```

Verbose Mode Off

```
Set Done
```

Output field description

Field	Description
<i>Auto Update</i>	This specifies the value of the autoupdate flag. If it is <i>True</i> then any file downloaded using the <i>download command</i> is applied im-

	mediately after being downloaded (in case of a <i>.cfg</i> file its commands would be immediately executed; in case of a <i>.bin</i> file the code in it will get programmed into the flash and the modem will reboot with the new code). If the flag is <i>False</i> then the file is simply downloaded and not executed.
--	--

Caution

None.

References

- ❖ *apply* command
- ❖ *set autoupdate* command
- ❖ *remove* command.
- ❖ *list* command

3.220 modify bras cfg

Description

Use this command to modify BRAS Configuration.

Command Syntax

modify bras cfg [status enable | disable] [selfppe restart]

Parameters

Name	Description
<i>status enable disable</i>	This field specifies whether Bridge Router Auto Sense (BRAS) feature is enabled or disabled. If enabled, the modem's PPOE client is disabled when a PPOE client is detected on the LAN. Type: Optional Default value: 0
<i>selfppe restart</i>	This is used to restart self PPOE clients in case they had got disabled because of a LAN PPOE client being detected earlier. Type: Optional

Mode

Super-User

Example

\$ modify bras cfg status enable selfppe restart

Output

Verbose Mode on

Status : Enable

Set Done

Verbose Mode off

Set Done

Output field description

Field	Description
<i>Status</i>	This field specifies whether Bridge Router Auto Sense (BRAS) feature is enabled or disabled. If enabled, the modem's PpOE client is disabled when a PpOE client is detected on the LAN.

Caution

None.

References

❖ `get bras cfg` command.

3.221 modify bridge tbg info

Description

Use this command to modify the aging timeout of dynamically learned forwarding information by the bridge.

Command Syntax

modify bridge tbg info aging aging-timeout

Parameters

Name	Description
<i>aging aging-timeout</i>	Specifies the timeout period in seconds for aging out

	dynamically learned forwarding information. 802.1D-1990 recommends a default of 300 seconds. Type: Mandatory Valid values: 30-1000000
--	---

Mode

Super-User.

Example

\$ modify bridge tbg info aging 400

Output

Verbose Mode On

```

MacAddress           : 00:00:00:00:00:00
No. of Ports         : 17
Base Type            : Transparent
Learned Entry Discards : 0
Aging TimeOut(sec)   : 300
    
```

Set Done

```

MacAddress           : 00:00:00:00:00:00
No. of Ports         : 17
Base Type            : Transparent
Learned Entry Discards : 0
Aging TimeOut(sec)   : 400
    
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>MacAddress</i>	The MAC address used by this bridge when it must be referred to in a unique fashion. It is the address of the ethernet port.
<i>No. of Ports</i>	The maximum number of ports that can be controlled by this bridge.
<i>Base Type</i>	Indicates what type of bridging this bridge can perform. It is always <i>Transparent</i>
<i>Learned Entry Discards</i>	The total number of Forwarding Database entries, which have been or would have been learnt, but have been discarded due to a lack of space to store them in the Forwarding Database. If this counter is increasing, it indicates that the Forwarding Database is regularly becoming full (a condition which has unpleasant performance effects on the subnetwork). If this counter has a significant value but is not presently increasing, it indicates that the problem has been occurring but is not persistent.

<i>Aging TimeOut(sec)</i>	The timeout period in seconds for aging out dynamically learned forwarding information.
---------------------------	---

Caution

None.

References

- ❖ *get bridge tbg info* command
- ❖ *bridge* related commands
- ❖ *bridge port stats* command
- ❖ *bridge static* related commands
- ❖ *bridge forwarding* related commands.

3.222 modify bridge mode

Description

Use this command to enable or disable the bridging on the unit.

Command Syntax

modify bridge mode [enable|disable] [wan2wan enable|disable]

Parameters

Name	Description
<i>enable disable</i>	Desired state of Bridging Mode. Type: Mandatory Valid values: <i>enable, disable</i>
<i>wan2wan enable disable</i>	Desired state of WAN-to-WAN bridging mode. Type: Optional Valid values: <i>enable, disable</i>

Mode

Super-User.

Example

\$ modify bridge mode enable wan2wan enable

Output

Verbose Mode On

```
Bridging      Wan to Wan Bridging
-----
enable        disable

Set Done

Bridging      Wan to Wan Bridging
-----
enable        enable
```

Verbose Mode Off

```
Set Done
```

Output field description

Field	Description
<i>Bridging</i>	This specifies whether bridging mode is enabled or disabled.
<i>Wan to Wan bridging</i>	This specifies whether WAN-to-WAN bridging mode is enabled or disabled.

Caution

None.

References

- ❖ *get bridge mode* command
- ❖ *bridge port* related commands
- ❖ *bridge port stats* command
- ❖ *bridge static* related commands
- ❖ *bridge forwarding* related commands

3.223 modify bridge static

Description

Use this command to modify the set of interfaces associated with an existing bridge static entry.

Command Syntax

```
modify bridge static macaddr mac-address inifname interface-  
name|all [ifname interface-name|all]+
```

Parameters

Name	Description
<i>macaddr mac-address</i>	This identifies the entry for which the information is to be modified. It is the destination MAC address in a frame to which this entry's filtering information applies. Type: Mandatory Valid values: 0:0:0:0:0:0 to FF:FF:FF:FF:FF:FF
<i>Inifname interface-name all</i>	Interface from which a frame must be received in order for this entry's filtering information to apply. A value of <i>all</i> indicates that this entry applies on all interfaces of the bridge for which there is no other applicable entry. Type: Mandatory Valid values: eth-0, eoa-0 - *, usb-0
<i>ifname interface-name</i>	The interface to which frames destined for the given MAC address are allowed to be forwarded. Any number of such interfaces may be specified together. Type: At least 1 should be specified. Valid values: eth-0, eoa-0 - *,usb-0

Mode

Super-User.

Example

```
$ modify bridge static macaddr 1:1:1:1:1:1 inifname all ifname usb-0
```

Output

Verbose Mode On

```
MAC Address      : 01:01:01:01:01:01      Incoming Interface : ALL
Interfaces       : eth-0
```

Set Done

```
MAC Address      : 01:01:01:01:01:01      Incoming Interface : ALL
Interfaces       : aal5-0
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>MAC Address</i>	The destination MAC address in a frame to which this entry's filtering information applies
<i>Incoming Interface</i>	Interface from which a frame must be received in order for this entry's filtering information to apply. A value of <i>all</i> indicates that this entry applies on all interfaces of

	the bridge for which there is no other applicable entry.
Interfaces	The interfaces to which frames destined for the given MAC address are allowed to be forwarded. Any number of such interfaces may be specified together. They may be: <i>eth-0, eoa-0 - *</i> , ...

Caution

The existing list of interfaces is replaced by the new list.

References

- ❖ *delete bridge static* command
- ❖ *get bridge static* command
- ❖ *create bridge static* command
- ❖ *bridge mode* related commands
- ❖ *bridge forwarding* related commands
- ❖ *bridge port stats* related commands
- ❖ *bridge static* related commands.

3.224 modify dhcp relay cfg

Description

Use this command to modify the DHCP relay configuration.

Command Syntax

modify dhcp relay cfg [enable|disable] [ip serv-ip]

Parameters

Name	Description
<i>ip serv-ip</i>	This specifies the IP Address where the DHCP Server is running Type: Optional Valid values: Any valid class A/B/C IP address
<i>enable disable</i>	This specifies the Admin Status of the DHCP Relay Type: Optional Valid values: <i>enable, disable</i>

Mode

Super-User.

Example

```
$ modify dhcp relay cfg enable
```

Output

Verbose Mode On

```
Status          : Disable  
Server IP Addr  : 202.64.23.4
```

Set Done

```
Status          : Enable  
Server IP Addr  : 202.64.23.4
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Status</i>	This specifies the Admin Status of the DHCP Relay. It may be: <i>Enable, Disable</i>
<i>Server IP Addr</i>	This specifies the IP Address where the DHCP Server is running.

Caution

DHCP Server and Relay both cannot be enabled at the same time

References

- ❖ *get dhcp relay cfg* command
- ❖ *dhcp server* related commands
- ❖ *dhcp relay stats* related commands

3.225 modify dhcp server cfg

Description

Use this command to enable or disable the dhcp server.

Command Syntax

```
modify dhcp server cfg {enable|disable}
```

Parameters

Name	Description
<i>enable disable</i>	The state the DHCP Server is to be set in. Type: Mandatory Valid values: <i>enable, disable</i>

Mode

Super-User.

Example

```
$ modify dhcp server cfg disable
```

Output

Verbose Mode On

```
Status : Enable
Set Done
Status : Disable
```

Verbose Mode Off

```
Set Done
```

Output field description

Field	Description
<i>Status</i>	The state of the DHCP Server. It may be either <i>Enable</i> or <i>Disable</i>

Caution

Both DHCP Relay and DHCP Server cannot be enabled together.

References

- ❖ *Get dhcp server cfg* command
- ❖ *dhcp client* related commands
- ❖ *dhcp server* related commands
- ❖ *dhcp server pool* related commands.

3.226 modify dhcp server host

Description

Use this command to modify an entry in the host table.

Command Syntax

```
modify dhcp server host ip ip-address [dname domain-name]
({pop3|nntp|web|irc|wins|swins|dns|sdns|gwy|smtp}
ip-address)* [dlease default-lease-time] [mlease max-lease-
time]
```

Parameters

Name	Description
<i>ip ip-address</i>	This specifies the IP address of the host the information pertaining to which is to be modified. Type: Mandatory Valid values: <i>Any valid class A/B/C IP address</i>
<i>dname domain-name</i>	Specifies the domain name configured for this host Type: Optional Valid values: String of length 64 with valid characters 'a'-'z', 'A'-'Z', '0'-'9', '-', '_', and '.' Default value: <i>Null</i>
<i>gwy ip-address</i>	This specifies the default gateway IP address Type: Optional Valid values: <i>Any valid class A/B/C IP address</i> Default value: <i>0.0.0.0</i>
<i>pop3 ip-address</i>	This specifies the IP address of the POP3 Server Type: Optional Valid values: <i>Any valid class A/B/C IP address</i> Default value: <i>0.0.0.0</i>
<i>nntp ip-address</i>	This specifies the IP address of the NNTP Server Type: Optional Valid values: <i>Any valid class A/B/C IP address</i> Default value: <i>0.0.0.0</i>
<i>web ip-address</i>	This specifies the IP address of the WWW Server Type: Optional Valid values: <i>Any valid class A/B/C IP address</i> Default value: <i>0.0.0.0</i>
<i>irc ip-address</i>	This specifies the IP address of the IRC Server Type: Optional Valid values: <i>Any valid class A/B/C IP address</i> Default value: <i>0.0.0.0</i>
<i>wins ip-address</i>	This specifies the IP address of the primary WIN Server Type: Optional Valid values: <i>0.0.0.0 – 255.255.255.255</i> Default value: <i>0.0.0.0</i>
<i>swins ip-address</i>	This specifies the IP address of the secondary WIN Server Type: Optional Valid values: <i>Any valid class A/B/C IP address</i>

	Default value: 0.0.0.0
<i>dns ip-address</i>	This specifies the IP address of the primary Domain Name Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>sdns ip-address</i>	This specifies the IP address of the secondary Domain Name Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>smtp ip-address</i>	This specifies the IP address of the SMTP Server Type: Optional Valid values: Any valid class A/B/C IP address Default value: 0.0.0.0
<i>dlease default-lease-time</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself. Type: Optional Valid values: 0 -mlease Default value: 2592000 seconds (this equals 30 days)
<i>mlease max-lease-time</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client. Type: Optional Valid values: 0 – 4294967295 Default value: 31536000 seconds (this equals 1 year)

Mode

Super-User.

Example

```
$ modify dhcp server host ip 192.168.1.7 dname www.test.net
```

Output

Verbose Mode On

```
Host Ip           : 192.168.1.7           Hardware Addr    : 12:34:45:56:03:02
Def Lease(sec)   : 2592000              Max Lease(sec)   : 31536000
Domain Name      :

Subnet Mask      : 255.255.255.0
Gateway Ip       : 0.0.0.0              Sntp Ip         : 0.0.0.0
Dns Ip          : 0.0.0.0              Sec. Dns Ip     : 0.0.0.0
Pop3 Ip         : 0.0.0.0              Nntp Ip        : 0.0.0.0
Www Ip         : 0.0.0.0              Irc Ip         : 0.0.0.0
Wins Ip        : 0.0.0.0              Sec. Wins Ip   : 0.0.0.0

Set Done

Host Ip           : 192.168.1.7           Hardware Addr    : 12:34:45:56:03:02
Def Lease(sec)   : 2592000              Max Lease(sec)   : 31536000
```

```
Domain Name      : www.test.net
Subnet Mask      : 255.255.255.0
Gateway Ip       : 0.0.0.0           Sntp Ip          : 0.0.0.0
Dns Ip           : 0.0.0.0           Sec. Dns Ip      : 0.0.0.0
Pop3 Ip          : 0.0.0.0           Nntp Ip          : 0.0.0.0
Www Ip           : 0.0.0.0           Irc Ip           : 0.0.0.0
Wins Ip          : 0.0.0.0           Sec. Wins Ip     : 0.0.0.0
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Host Ip</i>	This specifies the IP address provided to this host
<i>Hardware Addr</i>	This specifies the hardware address of the client
<i>Def Lease (sec)</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
<i>Max Lease (sec)</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.
<i>Domain Name</i>	Specifies the domain name configured for this host
<i>Subnet Mask</i>	This specifies the subnet mask to be provided to the host
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>Sntp Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec. Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server
<i>Www Ip</i>	This specifies the IP address of the WWW Server
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec. Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

None.

References

- ❖ `create dhcp server host` command
- ❖ `delete dhcp server host` command
- ❖ `get dhcp server host` command
- ❖ `dhcp server` related commands

3.227 modify dhcp server pool

Description

Use this command to modify the configuration of an existing DHCP pool.

Command Syntax

```
modify dhcp server pool pool-id pool-id [dname domain-name]
{{pop3|nntp|web|irc|wins|swins|dns|sdns|gwy|smtp} ip-
address}* [enabled|disabled] [lthres low-threshold]
[dlease default-lease-time] [mlease max-lease-time]
```

Parameters

Name	Description
<i>pool-id pool-id</i>	This identifies the pool whose configuration is to be modified. Type: Mandatory Valid values: 0 - 255
<i>dname domain-name</i>	Domain name used per subnet. Type: Optional Valid values: String of length 64 with valid characters 'a'-'z', 'A'-'Z', '0'-'9', '-', '_', and '.' Default value: Null
<i>gwy ip-address</i>	This specifies the default gateway IP address Type: Optional Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>pop3 ip-address</i>	This specifies the IP address of the POP3 Server Type: Optional Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>nntp ip-address</i>	This specifies the IP address of the NNTP Server Type: Optional Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>web ip-address</i>	This specifies the IP address of the WWW Server Type: Optional Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>irc ip-address</i>	This specifies the IP address of the IRC Server Type: Optional Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>wins ip-address</i>	This specifies the IP address of the primary WIN Server Type: Optional Valid values: 0.0.0.0 – 255.255.255.255 Default value: 0.0.0.0
<i>swins ip-address</i>	This specifies the IP address of the secondary WIN Server Type: Optional Valid values: 0.0.0.0 – 255.255.255.255

	Default value: <i>0.0.0.0</i>
<i>dns ip-address</i>	This specifies the IP address of the primary Domain Name Server Type: Optional Valid values: <i>0.0.0.0 – 255.255.255.255</i> Default value: <i>0.0.0.0</i>
<i>sdns ip-address</i>	This specifies the IP address of the secondary Domain Name Server Type: Optional Valid values: <i>0.0.0.0 – 255.255.255.255</i> Default value: <i>0.0.0.0</i>
<i>smtp ip-address</i>	This specifies the IP address of the SMTP Server Type: Optional Valid values: <i>0.0.0.0 – 255.255.255.255</i> Default value: <i>0.0.0.0</i>
<i>dlease default-lease-time</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself. Type: Optional Valid values: <i>0 -mlease</i> Default value: <i>2592000 seconds (this equals 30 days)</i>
<i>mlease max-lease-time</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client. Type: Optional Valid values: <i>0 – 4294967295</i> Default value: <i>31536000 seconds (this equals 1 year)</i>
<i>Enable disable</i>	The state the pool is to be set in. Type: Optional Valid values: <i>enable, disable</i> Default value: <i>enable</i>
<i>lthres low-threshold</i>	Specifies the lowest threshold value on the number of available IP addresses for a particular shared network. If the number of free IP addresses fall below this value, then a trap is raised. This value has to be less than the pool size specified using the start and end ip addresses. Type: Optional Valid values: <i>0 – 255</i> Default value: <i>0</i>

Mode

Super-User.

Example

```
$ modify dhcp server poolid 0 Enable
```

Output

Verbose Mode On

```
Pool Id           : 0                Status           : Disable
```

Start Ip : 192.168.1.1 End Ip : 192.168.1.200
Def Lease(sec) : 2592000 Max Lease(sec) : 31536000
Range Inuse : 0 Outstd Offers : 0
Low Thres : 0 Subnet Mask : 255.255.255.0
Domain Name :

Gateway Ip : 0.0.0.0 Sntp Ip : 0.0.0.0
Dns Ip : 0.0.0.0 Sec. Dns Ip : 0.0.0.0
Pop3 Ip : 0.0.0.0 Nntp Ip : 0.0.0.0
Www Ip : 0.0.0.0 Irc Ip : 0.0.0.0
Wins Ip : 0.0.0.0 Sec. Wins Ip : 0.0.0.0

Set Done

Pool Id : 0 Status : Enable
Start Ip : 192.168.1.1 End Ip : 192.168.1.200
Def Lease(sec) : 2592000 Max Lease(sec) : 31536000
Range Inuse : 0 Outstd Offers : 0
Low Thres : 0 Subnet Mask : 255.255.255.0
Domain Name :

Gateway Ip : 0.0.0.0 Sntp Ip : 0.0.0.0
Dns Ip : 0.0.0.0 Sec. Dns Ip : 0.0.0.0
Pop3 Ip : 0.0.0.0 Nntp Ip : 0.0.0.0
Www Ip : 0.0.0.0 Irc Ip : 0.0.0.0
Wins Ip : 0.0.0.0 Sec. Wins Ip : 0.0.0.0

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>PoolId</i>	This is the pool identifier
<i>Status</i>	This defines the Admin status of the entry. It may either be <i>enable</i> or <i>disable</i> .
<i>Start Ip</i>	The IP address of the first address in the range.
<i>End Ip</i>	The IP address of the last address in the range.
<i>Def Lease (sec)</i>	This specifies the lease period for which the server assigns an IP address to a client in case the client does not request for a specific lease period itself.
<i>Max Lease (sec)</i>	This specifies the maximum period for which the DHCP server can lease out an IP address to a DHCP client.
<i>Range Inuse</i>	The number of addresses in this range that are currently in use. This number includes addresses that have not expired and those that have been reserved.
<i>Outstd Offers</i>	The number of outstanding DHCOFFER messages for this range is reported with this value. An offer is outstanding if if the server has sent a DHCPOFFER message to a client, but has not yet received a DHCPREQUEST message from the client nor has the server-specific timeout, within which a client can respond to the offer message, for the offer message expired.
<i>Low Thres</i>	This specifies the lowest threshold value on the number of available/ free IP addresses for a particular shared network

<i>Subnet Mask</i>	The subnet mask provided to any client offered an address from this range
<i>Domain Name</i>	Domain name used per subnet.
<i>Gateway Ip</i>	This specifies the default gateway IP address
<i>SmtP Ip</i>	This specifies the IP address of the NNTP Server
<i>Dns Ip</i>	This specifies the IP address of the primary Domain Name Server
<i>Sec. Dns Ip</i>	This specifies the IP address of the secondary Domain Name Server
<i>Pop3 Ip</i>	This specifies the IP address of the POP3 Server
<i>Nntp Ip</i>	This specifies the IP address of the SMTP Server
<i>Www Ip</i>	This specifies the IP address of the WWW Server
<i>Irc Ip</i>	This specifies the IP address of the IRC Server
<i>Wins Ip</i>	This specifies the IP address of the primary WIN Server
<i>Sec. Wins Ip</i>	This specifies the IP address of the secondary WIN Server

Caution

None.

References

- ❖ *get dhcp server pool* command
- ❖ *create dhcp server pool* command
- ❖ *delete dhcp server pool* command
- ❖ *get dhcp server host* command
- ❖ *dhcp server cfg* related commands
- ❖ *dhcp server exclude* related commands
- ❖ *dhcp server address* related commands.

3.228 modify dns relay cfg

Description

Use this command to enable or disable DNS relay.

Command Syntax

```
modify dns relay cfg [enable|disable]
```

Parameters

Name	Description
<i>enable disable</i>	This specifies whether to enable or disable DNS relay. Type: Optional

	Valid values : enable or disable
--	----------------------------------

Mode

Super-User.

Example

```
$ modify dns relay cfg enable
```

Output

Verbose Mode On

Status : Disable

Set Done

Status : Enable

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Status</i>	This specifies whether DNS relay is enabled or disabled.

Caution

None.

References

3.229 modify dsl config

Description

User can modify the default parameters for DSL in the system using this command

Command Syntax

```
modify dsl config [t1413|glite|gdm|multi|rsrv|lgdm|
lg2] [annex annexa|annexb|annexc]
[trellis enable|disable] [expanded|short]
[framing0|framing1|framing2|framing3] [txatten tx-power-
attenuation] [gain coding-gain] [maxbits max-bits-per-bin]
[txstart tx-start-bin] [txend tx-end-bin]
[txbinadj enable|disable] [rxstart rx-start-bin]
[rxend rx-end-bin] [rxbinadj enable|disable]
[fastretrain enable|disable] [escfastretrain
enable|disable] [bitswap enable|disable] [duallatency
enable|disable]
[pmode enable|disable] [pilotreq enable|disable]
[whip enable|disable] [loop start|stop] [acmodeitem
fbm|dbm] [acpilotreq enable|disable] [actroffset
offset0|42] [ecfdmmode ec|fdm|fdmhp|fdmna]
```

Parameters

Name	Description
<i>t1413 glite gdm multi</i>	This specifies the standard to be supported for the DSL line. Type: Optional Valid values: T1413, glite (G992.2), gdm (G992.1), multi-mode Default value: G.dmt
<i>annex annexa annexc</i>	This specifies the Annex Type Type: Optional Valid values: Annex A, Annex B, Annex C
<i>trellis enable disable</i>	This is used to enable or disable Trellis coding on the interface. Type: Optional Valid values: <i>enable disable</i> Default value: enable
<i>expanded short</i>	Expanded Exchange Sequence (EES) enable/disable, only valid for T1.413. This is largely for compatibility testing. Type: Optional Valid values: expanded short Default value: expanded
<i>framing0 framing1 framing2 framing3</i>	Full overhead to reduced overhead (0x00-03). This value is ignored for G.lite. (G992.2). Type: Optional

	<p>Valid values: framing0 framing1 framing2 framing3 Default value: framing3</p>
<i>txatten tx-power-attenuation</i>	<p>This specifies the value of transmit power attenuation. Its range is from 0dB to 12dB. Type: Optional Valid values: 0 - 12 Default value: 0</p>
<i>gain coding-gain auto</i>	<p>Coding gain is the gain due to trellis/RS coding. Its value ranges from 0 to 7 dB in 1 dB increments. Recommended value is <i>auto</i>. Type: Optional Valid values: 0-7, 8 (auto) Default value: 8 (auto)</p>
<i>maxbits max-bits-per-bin</i>	<p>Maximum number of receive bits per bin . Type: Optional Valid values: 0-15 Default value: 14</p>
<i>txbinadj enable disable</i>	<p>Enable or disable automatic bin adjustment for transmit signal. Type: Optional Valid values: enable disable Default value: enable</p>
<i>txstart tx-start-bin</i>	<p>Lowest bin number allowed for transmit signal Type: Optional Valid values: 255 or less, depending on annex Default value: 6</p>
<i>txend tx-end-bin</i>	<p>Highest bin number allowed for transmit signal. Type: Optional Valid values: 255 or less, depending on annex Default value: 31</p>
<i>rxbinadj enable disable</i>	<p>Enable or disable automatic bin adjustment for receive signal. Type: Optional Valid values: enable disable Default value: disable</p>
<i>rxstart rx-start-bin</i>	<p>Lowest bin number allowed for receive signal Type: Optional Valid values: 32 Default value: 32</p>
<i>rxend rx-end-bin</i>	<p>Highest bin number allowed for receive signal. Type: Optional Valid values: 255 or less, depending on annex Default value: 255</p>
<i>fastretrain enable disable</i>	<p>Enable or disable fast retrain capability, Currently supported only in G.Lite mode. Type: Optional Valid values: enable disable Default value: disable</p>
<i>escfastretrain enable disable</i>	<p>Enable or disable escape to fast retrain capability. Type: Optional Valid values: enable disable Default value: disable</p>
<i>bitswap enable disable</i>	<p>Enable or disable bit swapping. Type: Optional Valid values: enable disable Default value: disable</p>
<i>duallatency enable disable</i>	<p>Enable or disable dependant upon support of dual latency. Valid only for T1.413 and G.DMT. Type: Optional Valid values: enable disable Default value: enable</p>

<i>pmode enable disable</i>	If enable, use the upstream pilot for data if the CO is GlobeSpan. Type: Optional Valid values: <i>enable disable</i> Default value: <i>enable</i>
<i>pilotreq enable disable</i>	Enable or disable request for pilot tone during training. Type: Optional Valid values: <i>enable disable</i> Default value: <i>enable</i>
<i>Whip enable disable</i>	Enable or disable Windows Based Host Interface Program Type: Optional Valid values: <i>enable disable</i> Default value: <i>disable</i>
<i>loop start stop</i>	Enables you to start or stop DSL connectivity Type: Optional Valid values: <i>start stop</i> Default value: <i>start</i>
<i>acmodeitem fbm dbm</i>	This specifies the bitmap transmission mode. Type: Optional Valid values: <i>fbm</i> : Time duplex transmission mode during FEXT symbols only <i>dbm</i> : Continuous transmission during NEXT and FEXT symbols with 2 bit loading profiles Default value: <i>fbm</i>
<i>acpilotreq enable disable</i>	Enable/Disable reception of Pilot Tone during the next period in the FEXT bitmap mode. Type: Optional Valid values: <i>enable disable</i> Default value: <i>enable</i>
<i>acttroffset offset0 offset42</i>	Offset from TTR_C (timing reference used in ATU-C) to TTR_R (timing reference used in ATU-R) Type: Optional Valid values: <i>offset0 offset42</i> Default value: <i>offset42</i>
<i>ecfdmode ec fdm fdmhp fdmnaf</i>	This enables selection of echo cancellation and frequency division multiplexing modes. Type: Optional Valid values: <i>ec</i> : specifies echo cancellation mode <i>fdm</i> : specifies frequency division multiplexing mode, which also performs echo cancellation <i>fdmhp</i> : pure frequency division multiplexing (with no echo cancellation) <i>fdmnaf</i> : frequency division multiplexing with no analog filter Default value: <i>ec</i>

Mode

Super-User.

Example

```
$ modify dsl config t1413 trellis enable expanded framing0 txatten 1
gain 8 maxbits 1 txbinadj enable txstart 1 txend 2 rxbinadj enable
rxstart 1 rxend 2 fastretrain enable bitswap enable duallatency enable
```

*pmode enable pilotreq enable whip enable loopacmodeitem fbm loop start
acpilotreq enable actroffset offset0 ecfdmmode ec
Output*

Verbose Mode On

```
Whip           : Disable           Annex Type           : Annex A
Standard       : Multimode         Trellis coding       : Enable
ExpExchSeq     : Expanded          Framing structure    :
Framing-3
TxAttenuation (dB) : 0           Coding Gain          : Auto
TxBinAdjust    : Enable           RxBinAdju
TxStartBin     : 6                TxEndBin             : 31
RxStartBin     : 32               RxEndBin             : 255
Fast Retrain   : Disable          Esc Fast Retrain    :
Disable
MaxBits/bin On Rx : 14           Bit Swap            : Disable
Dual Latency   : Enable           Pmode               : Enable
Pilot Request   : Enable           Last Failed Status
: 0x0
Oper Status    : Startup HShake      Startup Progress
: 0xa0
AC Mode item   : dbm           AC Ttr R Offset     : 42
AC Pilot Request : Disable       EC Fdm Mode         : EC
```

Set Done

```
Whip           : Disable           Annex Type           : Annex A
Standard       : Multimode         Trellis coding       : Enable
ExpExchSeq     : Expanded          Framing structure    : Framing-3
TxAttenuation (dB) : 0           Coding Gain          : Auto
TxBinAdjust    : Enable           RxBinAdjust         : Disable
TxStartBin     : 6                TxEndBin             : 31
RxStartBin     : 32               RxEndBin             : 255
Fast Retrain   : Disable          Esc Fast Retrain    :
Disable
MaxBits/bin On Rx : 14           Bit Swap            : Disable
Dual Latency   : Enable           Pmode               : Enable
Pilot Request   : Enable           Last Failed Status
: 0x0
Oper Status    : Startup HShake      Startup Progress
: 0xa0
AC Mode item   : dbm           AC Ttr R Offset     : 42
AC Pilot Request : Disable       EC Fdm Mode         : EC
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Whip</i>	Windows Based Host Interface Program is enabled or disabled
<i>Annex Type</i>	The DSL annex type (A, B, or C)
<i>Standard</i>	This specifies the standard to be supported for the DSL line.
<i>Trellis coding</i>	This is used to enable or disable Trellis coding on the interface.
<i>ExpExchSeq</i>	Expanded Exchange Sequence (EES) enable/disable, only valid for T1.413. This is largely for compatibility testing.
<i>Framing structure</i>	Full overhead to reduced overhead (0x00-03). This value is

	ignored for G.lite (G992.2).
<i>TxA</i> ttenuation (dB)	This specifies the value of transmit power attenuation. Its range is from 0dB to 12dB.
<i>Coding Gain</i>	Coding gain is the gain due to trellis/RS coding. Its value ranges from 0 to 7dB.
<i>TxBinAdjust</i>	Enable or disable automatic bin adjustment for transmit signal.
<i>RxBinAdjust</i>	Enable or disable automatic bin adjustment for receive signal.
<i>TxStartBin</i>	Lowest bin number allowed for transmit signal
<i>TxEndBin</i>	Highest bin number allowed for transmit signal.
<i>RxStartBin</i>	Lowest bin number allowed for receive signal
<i>RxEndBin</i>	Highest bin number allowed for receive signal.
<i>Fast Retrain</i>	Enable or disable fast retrain capability.
<i>Esc Fast Retrain</i>	Enable or disable escape to fast retrain capability.
<i>MaxBits/bin On Rx</i>	Maximum number of receive bits per bin.
<i>Bit Swap</i>	Enable or disable bit swapping,
<i>Dual Latency</i>	Enable or disable dependant upon support of dual latency. Valid only for T1.413 and G.DMT.
<i>Pmode</i>	If enable, use the upstream pilot for data if the CO is Globe-Span.
<i>Pilot Request</i>	Enable or disable request for pilot tone during training.
<i>Last Failed Status</i>	This value is reset to 0 each time a startup is attempted. If there is a failure, it indicates the reason for the failure.
<i>Oper Status</i>	Operational status of the transceiver. Values include Idle, Showtime/Data, Bootup Load, Startup HShake, Startup Trning, Frammer Sync, Lcl Anlg Lpbk, Lcl Dig Lpbk, Spectrum Test.
<i>Startup Progress</i>	Detailed startup information to be used for debugging.
<i>AC Mode Item</i>	For Annex C, the bitmap transmission mode
<i>AC Ttr R Offset</i>	Offset from TTR_C (ATU-C timing reference) to TTR_R (ATU-R timing reference)
<i>AC Pilot Request</i>	Status of pilot tone for the NEXT period in the FEXT bitmap mode
<i>EC Fdm Mode</i>	Echo cancellation and/or frequency division multiplexing mode

Caution

None.

References

❖ `get dsl config` command

3.230 modify eoa intf

Description

Use this command to modify the properties of an eoa interface.

Command Syntax

```
modify eoa intf ifname interface-name [ip ip-address]
[mask net-mask] [usedhcp true|false] [gwy <ddd.ddd.ddd.ddd>] [droute
true|false]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface name whose properties are to be modified. Type: Mandatory Valid values: <i>eoaa-0, eoaa-1 etc.</i>
<i>ip ip-address</i>	The IP address to be assigned to the eoa port. Type: Optional Valid values: Any valid class A/B/C IP address Default value: <i>0.0.0.0</i>
<i>mask net-mask</i>	This parameter specifies the subnet mask to be applied to the IP address. Type: <i>Optional</i> Valid values: <i>255.0.0.0 - 255.255.255.255</i> Default value: <i>255.0.0.0</i>
<i>usedhcp true false</i>	This specifies whether a DHCP client is to be triggered to obtain an IP address for this interface from a DHCP server. Type: <i>Optional</i> Valid values: <i>true or false</i> Default value: <i>false</i>
<i>gwy <ddd.ddd.ddd.ddd></i>	This specifies the gateway IP address Type: Optional Valid values: Any valid class A/B/C IP address Default value: <i>0.0.0.0</i>
<i>droute true false</i>	This specifies the default route Type: Optional Valid values: <i>true or false</i> Default value: <i>false</i>

Mode

Super-User.

Example

```
$ modify eoa intf ifname eoa-0 droute true gwy 172.25.12.1
```

Output

Verbose Mode On

```
IfName : eoa-0                               Interface Sec Type   : public
Configured IP Address : 192.168.1.1           Mask : 255.255.255.0
Low IfName      : aal5-0                       NAT Direction      : None
Gateway        : 0.0.0.0                       Droute             : false
Oper Status    : Down                          Admin Status       : Up
UseDHCP        : false
```

Set Done

```
IfName : eoa-0
Configured IP Address : 192.168.1.1
Low IfName : aal5-0
Gateway : 0.0.0.0
Oper Status : Down
UseDHCP : false

Interface Sec Type : public
Mask : 255.255.255.0
NAT Direction : None
Droute : false
Admin Status : Up
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>IfName</i>	The name of the interface which is being modified.
<i>Configured IpAddress</i>	IP address assigned to the eoa interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>LowIfName</i>	Specifies the lower interface.
<i>NatDir</i>	This specifies the NAT direction which may be: <i>inside</i> , <i>outside</i> or <i>none</i> .
<i>UseDhcp</i>	Whether or not a DHCP client is used to obtain the IP address for this interface from a DHCP server
<i>OperStatus</i>	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>
<i>AdminStatus</i>	The desired state of the interface. It may be either <i>Up</i> or <i>Down</i>
<i>Droute</i>	Default route
<i>Interface sec Type</i>	Interface security type.
<i>Gateway</i>	Gateway IP address

Caution

None.

References

- ❖ *eoas stats* command
- ❖ *interface stats* command.

3.231 modify ethernet intf

Description

Use this command to modify the NAT direction of the Ethernet interface.

Command Syntax

```
modify ethernet intf ifname interface-name [ip ip-address] [mask net-mask] [usedhcp local|remote|false]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface to be modified. Type: Mandatory Valid values: <i>eth-0, veth-0 - *</i>
<i>ip ip-address</i>	The IP address to be assigned to the ethernet interface. Type: Optional Valid values: <i>Any valid class A/B/C IP address</i> Default value: <i>0.0.0.0</i>
<i>mask net-mask</i>	This parameter specifies the subnet mask to be applied to the IP address. Mask not allowed when usedhcp is true , with ip 0.0.0.0 Type: Optional Valid values: <i>255.0.0.0 – 255.255.255.255</i> Default value: <i>255.0.0.0</i>
<i>usedhcp local remote false</i>	Local: IP address for this interface is obtained from a local DHCP server Remote: DHCP client is used to obtain the IP address for this interface from a remote DHCP server False: DHCP client is not used. Usedhcp is allowed only with eth-0 interface. Type: Optional Valid values: <i>local, remote, false</i> Default value: <i>false</i>
<i>inside outside none</i>	This specifies the NAT direction for the interface. Type: Optional for physical (eth) interfaces Not allowed for virtual (veth) interfaces Valid values: <i>inside, outside, none</i> Default value: <i>none</i>

Mode

Super-User.

Example

```
$ modify ethernet intf ifname eth-0 ip 172.25.7.8
```

Output

Verbose Mode On

```
Interface           : veth-0  
Interface Sec Type  : Public           Configured IP Address :  
192.168.1.1
```

```
Mask : 255.255.255.0 UseDhcp : False
Physical Interface : eth-0 Nat Direction : None
Duplex : half Speed : 10BT
Operational Status : Up Admin Status : Up
```

Set Done

```
Interface : veth-0
Interface Sec Type : Public Configured IP Address :
192.168.1.1
Mask : 255.255.255.0 UseDhcp : False
Physical Interface : eth-0 Nat Direction : None
Duplex : half Speed : 10BT
Operational Status : Up Admin Status : Up
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Interface</i>	The name of the interface which has been created.
<i>Interface Sec Type</i>	Interface security type.
<i>Configured Ip Address</i>	IP address assigned to the Ethernet port.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>UseDhcp</i>	Local: IP address for this interface is obtained from a local DHCP server Remote: DHCP client is used to obtain the IP address for this interface from a remote DHCP server False: DHCP client is not used.
<i>Physical Interface</i>	Valid only in case of virtual interfaces i.e. the Type is not <i>eth</i> . It can only be <i>eth-0</i>
<i>Nat Direction</i>	This specifies the NAT direction which may be: <i>inside</i> , <i>outside</i> or <i>none</i> .
<i>Duplex</i>	The duplex mode used by the interface.
<i>Speed</i>	Line speed used by Ethernet interface
<i>Operational Status</i>	The actual/current state of the interface. It can be either <i>up</i> or <i>down</i>
<i>Admin Status</i>	The desired state of the interface. It may be either <i>up</i> or <i>down</i>

Caution

None.

References

- ❖ *ethernet stats* command
- ❖ *interface stats* command.
- ❖ *create ethernet* command.

3.232 modify fw1 global

Description

Use this command to modify global configuration of IP Firewall.

Command Syntax

```
modify fw1 global [attackprotect enable|disable] [dosprotect
enable|disable] [blisprotect enable|disable] [blisperiod <decvalue>]
[maxtcpconn <decvalue>] [maxicmpconn <decvalue>] [maxsinglehostconn
<decvalue>] [logdest email|trace|both|none] [emailid1 email-id]
[emailid2 email-id] [emailid3 email-id] [minlogtime<decvalue>]
```

Parameters

Name	Description
attackprotect enable disable	This specifies the status of attack protection in firewall. Type: Optional Valid values : enable, disable
dosprotect enable disable	This specifies the status of DOS protection in firewall. Type: Optional Valid values : enable, disable
blisprotect enable disable	This specifies the status of blacklist protection in firewall. Type: Optional Valid values : enable, disable
blisperiod <decvalue>	It specifies the duration to blacklist an attacking host. Type: Optional Valid values : 0 - 43200
minlogtime<decvalue>	It specifies the minimum time between logging of an individual attack. Type: Optional Valid values: 0 - 65535
maxtcpconn <decvalue>	It specifies the % of total connections that can be in a TCP half open state. Type: Optional Valid values : 0-100
maxicmpconn <decvalue>	It specifies the % of total connections that can be ICMP connections. Type: Optional Valid values : 0-100
maxsinglehostconn <decvalue>	It specifies the % of total connections that can be from a single host. Type: Optional Valid values : 0-100
Logdest email trace both none	This specifies the destination type for firewall logs. Type: Optional Valid values : email,trace,both none
emailid1 email-id	This field specifies the email address of the firewall administrator1 Type: Optional Valid values : Display string of length 64 char.
emailid2 email-id	This field specifies the email address of the firewall administrator2

	Type: Optional Valid values : Display string of length 64 char.
emailid3 email-id	<i>This field specifies the email address of the firewall administrator3</i> Type: Optional Valid values : Display string of length 64 char.

Mode

Super-User.

Example

```
$ modify fw1 global attackprotect enable dosprotect enable blistperiod  
20 maxtcpconn 20 maxicmpconn 35 maxsinglehostconn 50 logdest email  
emailid1 abc.yahoo.comcom minlogtime 10
```

Output

Verbose Mode On

```
Attack Protection           : Disable      Max Half Open TCP  
Conn (%) : 25
```

```
DOS Protection             : Disable      Max ICMP Conn (%)  
: 25
```

```
Blacklist Status          : Enable      Max Single Host Conn(%)  
: 100
```

```
Blacklist Period (min) : 10      Min Log Time (min)  
:10
```

```
Log Destination           : Trace
```

```
E-Mail 1                  : -
```

```
E-Mail 2                  : -
```

```
E-Mail 3                  : -
```

Set Done

```
Attack Protection           : Enable      Max Half Open TCP  
Conn (%) : 20
```

```

DOS Protection           : Enable      Max ICMP Conn (%)
: 35

Blacklist Status        : Enable      Max Single Host Conn(%)
: 50

Blacklist Period (min) : 20           Min Log Time(min)
:10

Log Destination         : Email

E-Mail 1                : abc.yahoo.com

E-Mail 2                : -

E-Mail 3                : -

Verbose Mode Off
    
```

Set Done

Output field description

Name	Description
<i>attackprotect</i> <i>enable disable</i>	This specifies the status of attack protection in firewall.
<i>dosprotect</i> <i>enable disable</i>	This specifies the status of DOS protection in firewall.
<i>blistprotect</i> <i>enable disable</i>	This specifies the status of blacklist protection in firewall.
<i>blistperiod</i> <i><decvalue></i>	It specifies the duration to blacklist an attacking host.
<i>Min Log Time(min)</i>	It specifies the minimum time between logging of an individual attack.
<i>maxtcpconn</i> <i><decvalue></i>	It specifies the % of total connections that can be in a TCP half open state.
<i>maxicmpconn</i> <i><decvalue></i>	It specifies the % of total connections that can be ICMP connections.
<i>maxsinglehostconn</i> <i><decvalue></i>	It specifies the % of total connections that can be from a single host.
<i>Logdest</i> <i>email trace both none</i>	This specifies the destination type for firewall logs.
<i>emailid1 email-id</i>	This field specifies the email address of the firewall administrator1
<i>emailid2 email-id</i>	This field specifies the email address of the firewall administrator2

emailid3 email-id	This field specifies the email address of the firewall administrator3
--------------------------	---

Caution

None.

References

❖ `get fw1 global` command

3.233 modify ipoa intf

Description

Use this command to modify an IPoA (IP over ATM) interface.

Command Syntax

```
modify ipoa intf ifname interface-name [ip ip-address] [mask net-mask]
[gwy <ddd.ddd.ddd.ddd>] [droute true|false] [usedhcp true/ false]
```

Parameters

Name	Description
ifname interface-name	This parameter uniquely identifies the name of the IPoA interface. Type: Mandatory Valid values: ipoa-0-*,ipoa-1 etc.,.
ip ip-address	The IP address to be assigned to the interface. Type: Optional Valid values: Valid IP address
mask net-mask	This parameter specifies the subnet mask to be applied to the IP address. Type: Optional Valid values: 255.0.0.0 - 255.255.255.255
gwy <ddd.ddd.ddd.ddd>	This parameter specifies the Gateway IP address. Type: Optional Valid values: Valid Gateway IP Address.
droute true false	This specifies the default route Type: Optional Valid values: true or false
Usedhcp true/false	This specifies whether a DHCP client is to be triggered, to obtain an IP address for this interface, from a DHCP server. Type: Optional Valid values: true or false

Mode

Super-User.

Example

```
$ modify ipoa intf ifname ipoa-0 ip 172.25.12.74
```

Output

Verbose Mode On

```
IfName          : ipoa-0          UseDHCP          : false
Type            : non1577         Interface Sec Type : Public
Configured IP Address: 172.25.12.12 Mask              : 255.255.0.0
DRoute          : False          Gateway          : 0.0.0.0
NAT Direction   : OUT            Oper Status      : Down
```

Set Done

```
IfName          : ipoa-0          UseDHCP          : false
Type            : non1577         Interface Sec Type : Public
Configured IP Address : 172.25.12.74 Mask              : 255.255.0.0
DRoute          : False          Gateway          : 0.0.0.0
NAT Direction   : OUT            Oper Status      : Down
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>IfName</i>	The name of the IPoA interface which has been created.
<i>UseDHCP</i>	This specifies if a DHCP client is used to obtain the IP address for this interface from a DHCP server, or not.
<i>Type</i>	This specifies the type of IPoA interface.
<i>Interface sec Type</i>	VPI to be used for ILMI SNMP message exchanges
<i>Configured IP Address</i>	IP address assigned to the IPoA interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>Droute</i>	The time-interval in seconds, ILMI should use to poll for peer ILMI's availability.
<i>Gateway</i>	Number of times ILMI should retry before declaring ILMI connectivity as lost.
<i>Nat Direction</i>	This specifies the NAT direction, which may be: inside, outside or none.
<i>Oper Status</i>	The actual/current state of the interface. It can be either Up or Down

Caution

IPoA interface will come up only when ipoa map is created from that interface.

References

- ❖ `get ipoa intf` command
- ❖ `delete ipoa intf` command
- ❖ `create ipoa map` command
- ❖ `delete ipoa map` command

3.234 modify ilmi intf

Description

Use this command to modify ILMI based auto configuration parameters on the specified ATM interface.

Command Syntax

```
modify ilmi intf ifname interface-name [enable|disable] [vpi vpi-number] [vci vci-number] [timeout time-out] [keepalive keep-alive] [maxretry max-retry]
```

Parameters

Name	Description
<i>ifname interface-name</i>	It specifies the ATM port on which the ILMI based auto configuration parameters are to be modified Type: Mandatory Valid values: <i>atm-0</i> .
<i>enable disable</i>	Whether ILMI based auto configuration is enabled or not on this interface Type: Optional Valid values: <i>enable, disable</i> Default value: <i>disable</i>
<i>vpi vpi-number</i>	VPI to be used for ILMI SNMP message exchanges Type: Optional Valid values: <i>0-65535</i> Default value: <i>0</i>
<i>vci vci-number</i>	VCI to be used for ILMI SNMP message exchanges Type: Optional Valid values: <i>0-65535</i> Default value: <i>16</i>
<i>timeout time-out</i>	Timeout value in seconds, for SNMP Get/ Set messages exchanged between peer Interface Management Entities (IMEs) Type: Optional Valid values: <i>1-65535</i> Default value: <i>1</i>
<i>keepalive keep-alive</i>	The time-interval in seconds, ILMI should use to poll for peer ILMI's availability. Type: Optional Valid values: <i>1-65535</i>

	Default value: 5
maxretry max-retry	Number of times ILMI should retry before declaring ILMI connectivity as lost. Type: Optional Valid values: 0-65535 Default value: 4

Mode

Super-User.

Example

```
$ modify ilmi intf ifname atm-0 enable vpi 10 vci 5 timeout 3 keepalive
5 maxretry 11
```

Output

Verbose Mode On

```
Interface      : atm-0      Status           : Disable
VPI           : 12        VCI              : 50
Timeout(sec)  : 1         Keep Alive (sec) : 3
Max Retries   : 3        Version          : 4.0
```

Set Done

```
Interface      : atm-0      Status           : Enable
VPI           : 10        VCI              : 5
Timeout(sec)  : 3         Keep Alive (sec) : 5
Max Retries   : 11       Version          : 4.0
```

Verbose Mode Off

Set Done

Output field description

Field	Description
Interface	It specifies the ATM port on which the ILMI based auto configuration parameters are being modified
Status	Whether ILMI based auto configuration is enabled or not on this interface.
VPI	VPI to be used for ILMI SNMP message exchanges
VCI	VCI to be used for ILMI SNMP message exchanges
Timeout	Timeout value in seconds, for SNMP Get/ Set messages exchanged between peer Interface Management Entities (IMEs).
Keep Alive	The time-interval in seconds, ILMI should use to poll for peer ILMI's availability.
Max Retries	Number of times ILMI should retry before declaring ILMI connectivity as lost.
Version	The version of ILMI

Caution

Enabling the ILMI interface only marks the state of the interface as enabled. The actual procedure begins only after the *trigger ilmi* command is given, or after the modem is rebooted. On the other hand, to disable the procedure, it is sufficient set the ILMI interface state as disabled.

References

- ❖ *create ilmi intf* command
- ❖ *get ilmi intf* command
- ❖ *modify ilmi trigger* command
- ❖ *trigger ilmi* command
- ❖ *get ilmi access protocol* command

3.235 modify ip cfg**Description**

Use this command to modify IP Stack configuration parameters.

Command Syntax

```
modify ip cfg [forwarding {enable|disable}] [ttl time-to-live]
```

Parameters

Name	Description
<i>Forwarding enable disable</i>	This indicates whether this entity is acting as an IP gateway in respect to the forwarding of datagrams received by, but not addressed to, this entity Type: Optional Valid values: <i>enable, disable</i>
<i>ttl time-to-live</i>	This specifies the default value which will be inserted into the Time-To-Live field of the IP header of datagrams originated at this entity, whenever this is not supplied by the transport layer protocol Type: Optional Valid values: <i>1-255</i>

Mode

Super-User.

Example

```
$ modify ip cfg forwarding enable ttl 50
```

Output

Verbose Mode On

```
Forwarding : Disabled  
TTL(sec)   : 64
```

Set Done

```
Forwarding : Disabled  
TTL(sec)   : 50
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Forwarding</i>	This indicates whether this entity is acting as an IP gateway in respect to the forwarding of datagrams received by, but not addressed to, this entity. It may be: <i>Enabled, Disabled</i>
<i>TTL</i>	The default value inserted into the Time-To-Live field of the IP header of datagrams originated at this entity, whenever this is not supplied by the transport layer protocol. Here it will always be <i>64</i> .

Caution

None.

References

- ❖ *get ip cfg* command
- ❖ *ip stats* related commands
- ❖ *ip address* related commands
- ❖ *arp* related commands.

3.236 modify ipf global

Description

Use this command to modify the global configuration.

Command Syntax

```
modify ipf global [seclevel high|medium|low|none] [pubdefact  
accept|deny] [pvtdefact accept|deny] [dmzdefact accept|deny]
```

Parameters

Name	Description
<i>seclevel high medium low none</i>	This specifies the service protection level applied to the system. Type: Optional Valid values: high,medim,low,none
<i>pubdefact accept deny</i>	Specifies the default action when a packet does not match any of the Security rules on a public interface. Type: Optional Valid values : accept,deny
<i>pvtdefact accept deny</i>	Specifies the default action when a packet does not match any of the Security rules on a private interface. Type: Optional Valid values : accept,deny
<i>dmzdefact accept deny</i>	Specifies the default action when a packet does not match any of the Security rules on a DMZ interface. Type: Optional Valid values : accept,deny

Mode

Super-User.

Example

```
$ modify ipf global seclevel high pubdefact accept pvtdefact deny  
dmzdefact accept
```

Output

Verbose mode on:

```
Security Level      : None      DMZ Default Action  :  
Deny  
  
Public Default Action : Deny      Private Default Action :  
Accept
```

Set Done

Security Level : High DMZ Default Action :
Accept

Public Default Action : Accept Private Default Action :
Deny

Verbose mode off:

Set Done

Output Field description

Field	Description
<i>Security Level</i>	This specifies the service protection level applied to the system.
<i>Public Default Action</i>	Specifies the default action when a packet does not match any of the Security rules on a public interface.
<i>Private Default Action</i>	Specifies the default action when a packet does not match any of the Security rules on a private interface.
<i>DMZ Default Action</i>	Specifies the default action when a packet does not match any of the Security rules on a DMZ interface.

Caution

None

References

3.237 modify ipf rule entry

Description

This command is used for modifying an IP filter rule for filtering.

Command Syntax

```
modify ipf rule entry ruleid rule-id [log enable|disable]  
[enable|disable]
```

Parameters

Name	Description
<i>ruleid rule-id</i>	This is index given by caller to identify the Rule entry. Type: Mandatory Valid values : 1-4294967295
<i>[log enable disable]</i>	This flag controls the logging of matched packets. Each log will contain IP Header and TCP/UDP header or ICMP fields, if available. Type: Optional Valid values: <i>enable</i> or <i>disable</i>
<i>enable disable</i>	Specifies the status of rule entry. Type: Optional Valid values: <i>enable</i> or <i>disable</i>

Mode

Super-User.

Example

```
$ modify ipf rule entry ruleid 1 enable log enable
```

Output

Verbose Mode On

```
Rule id           : 1      Interface           : eth-0
Rule Admin status : Disable Rule Oper Status  : Disable
In interface      : ALL   Direction         : Out
Security Level    : High   Blacklist Status  : Enable
Logging           : Disable Action            : Accept
Log Tag           : -
IP Frag Pkt       : Yes    IP Opt Pkt        : No
TCP Flag          : Syn    Store State       : Enable
Src Addr          : Equal   172.25.8.76
Dest Addr         : Range   172.25.8.70      172.25.8.90
Src Port          : Out Of Range 10                20
Dest Port         : Not Equal 3
ICMP Code         : Not Equal 10
ICMP Type         : Equal   unreachable
TransProt         : Equal   TCP
IP Pkt Size       : Less Than 10
TOD Rule         : Enable Between 01:02:30      02:01:30
```

Set Done

```
Rule id           : 1      Interface           : eth-0
Rule Admin status : Enable  Rule Oper Status  : Disable
In interface      : ALL   Direction         : Out
Security Level    : High   Blacklist Status  : Enable
Logging           : Enable  Action            : Accept
Log Tag           : -
IP Frag Pkt       : Yes    IP Opt Pkt        : No
TCP Flag          : Syn    Store State       : Enable
Src Addr          : Equal   172.25.8.76
Dest Addr         : Range   172.25.8.70      172.25.8.90
Src Port          : Out Of Range 10                20
Dest Port         : Not Equal 3
ICMP Code         : Not Equal 10
ICMP Type         : Equal   unreachable
TransProt         : Equal   TCP
IP Pkt Size       : Less Than 10
```

TOD Rule : Enable Between 01:02:30

02:01:30

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Rule id</i>	The index given by the caller to identify the rule entry.
<i>Rule Admin Status</i>	Specifies administrative status of the rule entry.
<i>Interface</i>	Specifies the IP-enabled physical interface to be associated to this rule. All indicates that the rule is to be associated to all interfaces.
<i>In Interface</i>	Specifies the input interface ID which may be used to dictate the rules such as deny/accept all traffic from a specific interface. This field can be specified only if the direction is out.
<i>Direction</i>	Specifies the direction of data flow on which filtering is to be applied.
<i>Action</i>	Specifies the action to be taken when a packet matches a rule.
<i>Logging</i>	This flag controls the logging of matched packets. Each log will contain IP header and TCP/UDP header or ICMP fields, if available.
<i>Log Tag</i>	This specifies the Filter logging tag, which will be added to all the logs generated due to the rule
<i>Src Addr</i>	This field specifies the matching criteria for source IP Address along with the source IPAddress value and the destination IP-Address value. The source or destination or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
<i>Dest Addr</i>	This field specifies the matching criteria for source IP Address along with the source IPAddress value and the destination IP-Address value. The source or destination or both are shown depending on whether the matching criteria is relational, range, erange, any or self.
<i>Src Port</i>	This field specifies the matching criteria for source port along with the start of src port and the end of src port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcast.
<i>Dest Port</i>	This field specifies the matching criteria for destination Port along with the start dest port and the end dest port. The start or end or both are shown depending on whether the matching criteria is relational, range, erange, any or bcast.
<i>ICMP Code</i>	This field specifies the matching criteria for ICMP code value along with the code field in ICMP header in case of ICMP packets.
<i>ICMP Type</i>	This field specifies the matching criteria for ICMP Type along with the type field in ICMP header in case of ICMP packets.
<i>TransProt</i>	This field specifies the matching criteria for transport protocol field along with the transport layer protocol number as per IANA.
<i>TCP Flag</i>	This specifies filtering criteria for TCP packet types.
<i>Store State</i>	This specifies whether stateful filtering is done or not

<i>Security Level</i>	This specifies the association of rule with system wide service protection level.
<i>Blacklist Status</i>	This specifies whether source of the packet should be put in blacklist if it matches with the rule. It will be applicable to deny kind of rules
<i>IP Frag Pkt</i>	This specifies whether the rule is applicable to fragmented packets, non fragmented packets or in both cases.
<i>IP Opt Pkt</i>	This specifies whether the rule is applicable to IP packet with or without IP options or in both cases.
<i>IP Pkt Size</i>	This field specifies the matching criteria for IP Pkt Size along with IP packet filtering attribute . It should be compared against the packet size value in IP header.
<i>ToD Rule</i>	This field specifies whether the rule should be applied for the duration specified."Enable Between" indicates that the rule is applied between the specified time duration."Disable Between" indicates that rule is not applicable between the specified duration, but it is applicable for remaining time of the day.
<i>Rule Oper Status</i>	A rule will be operationally enabled if and only if it is administratively enabled, its Time of Day status as per current time is Enable, and if the rule's security level matches the global security level as shown by get ipf global.

Caution

None.

References

- ❖ `create ipf rule entry` command
- ❖ `get ipf rule entry` command
- ❖ `delete ipf rule entry` command

3.238 modify l2tp global config

Description

Use this command to modify L2tp global configuration.

Command Syntax

```
modify l2tp global config timeout {infinite|{num <decValue>}}
```

Parameters

Name	Description
<code>timeout {infinite { num <decValue>}}</code>	This field defines the period of time (in secs) that a peer will wait for the response. A value of "Infinite" indicates an infinite wait. Type: mandatory Valid values: 1 ..3600, infinite

Mode

Super-User.

Example

```
$ modify l2tp global config timeout num 300
```

Output

Verbose mode on:

```
Response timeout (secs) : 350
```

Set Done

```
Response timeout (secs) : 300
```

Verbose mode off:

Set Done

Output Field description:

Field	Description
<i>Response Timeout (secs)</i>	Defines the period of time (in secs) that a peer will wait for the response. A value of "Infinite" indicates an infinite wait.

Caution

None.

References

3.239 modify l2tp tunnel config

Description

Use this command to modify L2tp tunnel configuration.

Command Syntax

```

modify l2tp tunnel config
ifname interface-name
[localip local-ip-address]
[localhostname local-host-name]
[remoteip remote-ip-address]
[remotehostname remote-host-name]
[start|stop]
[authtype simple|challenge|none]
[secret tunnel-secret]
[hellointerval hello-interval]
[idletimeout {infinite|{num <decValue>}}]
[crws contol-recv-window-size]
[maxretx max-retransmission]
[maxretxtimeout max-retransmission-timeout]
[payloadseq never|always]]
[transport udpip]
[initiator local|remote]
[enable|disable]

```

Parameters

Name	Description
<i>ifname interface-name</i>	Identifies the interface name for L2TP layer. Type: Mandatory Valid values: l2t-0-l2t-*
<i>localip local-ip-address</i>	This field specifies the address of the local endpoint of the tunnel, or 0.0.0.0 if the device is free to choose any of its addresses at tunnel establishment time. Type: Optional Valid values:
<i>localhostname host-name</i>	Name of the local End-point of the tunnel. Type: Optional Valid values: Display string of 255 characters
<i>remoteip remote-ip-address</i>	This field specifies the address of the remote end-point of the tunnel to which the tunnel is to be established. Type: Optional Valid values:
<i>remotehostname peer-dns-name</i>	Name of the remote End-point of the tunnel Type: Optional Valid values: Display string of 255 characters.
<i>start stop</i>	This attribute specifies the action to be taken for the

	<p>tunnel. True establishes the Tunnel. False tears the tunnel down. Type: Optional Valid values: start, stop</p>
<p>authtype <i>simple challenge none</i></p>	<p>This object describes how L2TP tunnel peers are to be authenticated Type: optional Valid values: simple, challenge, none</p>
<p>secret tunnel-secret</p>	<p>This object is used to configure the shared secret used during the tunnel authentication phase of tunnel establishment if authtype is challenge. Type: optional Valid values: Hex Value - maximum of 64 octet length.</p>
<p>Hellointerval hello-interval</p>	<p>This object defines the interval (in sec) in which Hello packets are to be sent to the tunnel peer. A value '0' indicates that Hello packets will not be sent to tunnel peer. Type: optional Valid values: 0..3600(sec)</p>
<p>idletimeout idle-timeout</p>	<p>This object defines the period of time (in seconds) that an established tunnel with no sessions will wait before disconnecting the tunnel. A value of '0' indicates that the tunnel will disconnect immediately after the last session disconnects. "infinite" leaves the tunnel up indefinitely. Type: optional Valid values: 0.86400(sec), infinite</p>
<p>crws contol-recv-window-size</p>	<p>This object defines the control channel receive window size. It specifies the maximum number of packets the tunnel peer can send without waiting for an acknowledgement from this peer Type: optional Valid values: 1..10</p>
<p>maxretx max-retransmission</p>	<p>This object defines the number of retransmissions, which the tunnel will attempt before assuming that the peer is no longer responding. A value of '0' indicates that this peer will not attempt to retransmit an unacknowledged control packet. Type: optional Valid values: 0..32</p>
<p>maxretxtimeout max-retransmission-timeout</p>	<p>This object defines the maximum retransmission timeout interval that the tunnel will wait before retransmitting a control packet that has not been acknowledged. Type: optional Valid values: 1..32</p>
<p>payloadseq never always</p>	<p>This object determines whether or not session payload packets will be requested to be sent with sequence numbers from tunnel peer's. Type: optional Valid values: never, always</p>
<p>transport udpip</p>	<p>This object defines the underlying transport media that is in use for this tunnel entry.</p>

	Type: optional Valid values: udpip
<i>initiator local remote</i>	This object indicates whether the tunnel will be initiated locally or not. Type: optional Valid values: local, remote
<i>Enable disable</i>	Admin status of interface Type: optional Valid values: enable or disable

Mode

Super-User.

Example

```
$ modify l2tp tunnel config ifname l2t-0 localip 178.10.1.2 remoteip  
178.10.2.1 hellointerval 100 idletimeout 200
```

Output

Verbose mode on:

```
If Name           : l2t-0

Admin Status      : Up           Oper Status      :
Up

Local IP-address  : 178.10.10.10   Remote IP-address :
178.10.11.10

Hello Interval    : 300           Idle Timeout     :
100

Max Retx Attempt  : 10           Max Retx Timeout :
10

Initiator         : local           Payload Sequencing :
always

Authentication Type : simple       Transport        :
udpip

Control RWS       : 5
```

Shared Secret : passwd
Local Host name : titanium
Remote Host name : Columbia

Set Done

If Name : 12t-0
Admin Status : Up Oper Status :
Up
Local IP-address : 178.10.10.10 Remote IP-address :
178.10.11.10
Hello Interval : 300 Idle Timeout :
100
Max Retx Attempt : 10 Max Retx Timeout :
10
Initiator : local Payload Sequencing :
always
Authentication Type : simple Transport :
udpip
Control RWS : 5
Shared Secret : passwd
Local Host name : titanium
Remote Host name : Columbia
Remote Host name : Columbia

Verbose mode off:

Set Done

Output Field description:

Field	Description
<i>If-name</i>	Identifies the interface name for L2TP layer.
<i>Local IP-address</i>	This field specifies the address of the local endpoint of the tunnel
<i>Local Host name</i>	This field specifies the address of the local endpoint of the tunnel
<i>Remote IP-address</i>	This field specifies the address of the remote endpoint of the tunnel to which the tunnel is to be established.
<i>Admin Status</i>	This field specifies the adminstatus of the of the l2tp interface.
<i>Oper Status</i>	This field specifies the Operstatus of the of the l2tp interface.
<i>Remote Host name</i>	This field specifies the hostname of the remote endpoint of the tunnel to which the tunnel is to be established.
<i>Hello Interval</i>	Defines the interval (in sec) in which Hello packets are to be sent to the tunnel peer
<i>Idle Timeout</i>	Defines the period of time (in seconds) that an established tunnel with no sessions will wait before disconnecting the tunnel.
<i>Control RWS</i>	Defines the control channel receive window size
<i>Max Retx Timeout</i>	Defines the maximum retransmission timeout interval that the tunnel will wait before retransmitting a control packet that has not been acknowledged.
<i>Initiator</i>	This indicates whether the tunnel will be initiated locally or not.
<i>Payload Sequencing</i>	This object determines whether or not session payload packets will be requested to be sent with sequence numbers from tunnel peer's. The value never(2) indicates that L2TP will never initiate sequencing but will do sequencing if asked. The value always(3) indicates that L2TP will send the sequencing Required AVP during session establishment
<i>Authentication Type</i>	Describes how L2TP tunnel peers are to be authenticated
<i>Transport</i>	Defines the underlying transport media that is in use for this tunnel entry.
<i>Shared Secret</i>	Shared secret is used during the tunnel authentication phase of tunnel establishment if authtype is challenge
<i>Max Retx Attempt</i>	Defines the number of retransmissions, which the tunnel will attempt before assuming that the peer is no longer responding.

Caution

None.

References

3.240 modify l2wall cfg

Description

Use this command to modify the L2WALL global configuration.

Command Syntax

```
modify l2wall cfg [off|on|auto] [inacttime inactive-time]
```

Parameters

Name	Description
<i>off on auto</i>	Status of the L2wall configuration.. Type: Optional Valid values: on, off or auto Default value: off
<i>inacttime inactive-time</i>	Time since last recorded activity in minutes. Type: Optional Valid values: 0 – 4294967295 Default value: 5

Mode

Super-User

Example

```
$ modify l2wall cfg on inacttime 20
```

Output

Verbose Mode On:

```
Status : off   Inactive Time(min) : 5  
Set Done  
Status : on   Inactive Time(min) : 20
```

Verbose Mode Off:

```
Set Done
```

Output field description

Field	Description
<i>Status</i>	Status of the L2wall configuration.

<i>Inactive Time (min)</i>	Time since last recorded activity in minutes.
----------------------------	---

Caution

None.

References

❖ `get l2wall cfg`

3.241 modify nat global

Description

Use this command to modify NAT global info.

Command Syntax

```
modify nat global [tcpidletimeout tcp-idle-timeout] [tcpclosewait tcp-
close-wait] [tcptimeout tcp-timeout] [udptimeout udp-timeout]
[gretimeout gre-timeout][esptimeout esp-timeout] [icmptimeout icmp-
timeout] [defnatage default- nat-timeout] [{enable|disable}] [portstart
port-start] [portend port-end]
```

Parameters

Name	Description
<i>tcpidletimeout tcp-idle-timeout</i>	The Time out (in seconds) which is used to expire out Idle TCP Nat Translations Type: Optional Valid values: 1-4294967295
<i>tcpclosewait tcp-close-wait</i>	The Wait time (in seconds) after which a TCP connection is closed Type: Optional Valid values: 1-4294967295
<i>tcptimeout tcp-timeout</i>	The default timeout (in seconds) in case of errors. Type: Optional Valid values: 1-4294967295
<i>udptimeout udp-timeout</i>	The time (in seconds) for UDP timeout Type: Optional Valid values: 1-4294967295
<i>icmptimeout icmp-timeout</i>	The time (in seconds) for ICMP timeout Type: Optional Valid values: 1-4294967295
<i>gretimeout gre-timeout</i>	The time (in seconds) for GRE timeout Type: Optional Valid values: 1-4294967295
<i>esptimeout esp-timeout</i>	The time (in seconds) for ESP timeout Type: Optional Valid values: 1-4294967295

<i>defnatage default-nat-timeout</i>	The default Nat Time Out (in seconds). Type: Optional Valid values: 1-4294967295
<i>enable disable</i>	This is used to enable or disable NAT operations in the IAD Type: Optional
<i>portstart port-start</i>	The port value from which the port range can start. This value can be set only when the Nat is disabled. Type: Optional Valid values: 50000 - 60000
<i>portend port-end</i>	The port value at which the port range ends. This value can be set only when the Nat is disabled. Type: Optional Valid values: 50000 - 60000

Mode

Super-User

Example

\$ modify nat global disable

Output

Verbose Mode On

```
TCP Idle Timeout(sec) : 86400          TCP Close Wait(sec)   : 60
TCP Def Timeout(sec)  : 60             UDP Timeout(sec)     : 300
ICMP Timeout(sec)    : 60             GRE Timeout (sec)    : 200
ESP Timeout(sec)     : 300            Default Nat Age(sec) : 240
NAPT Port Start      : 50000          NAPT Port End       : 51023
Admin Status         : Disable
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>TCP Idle Timeout</i>	The Time out (in seconds) which is used to expire out Idle TCP Nat Translations
<i>TCP Close Wait</i>	The Wait time (in seconds) after which a TCP connection is closed
<i>TCP Def Timeout</i>	The default timeout (in seconds) in case of errors.
<i>UDP Timeout</i>	The time (in seconds) for UDP timeout
<i>ICMP Timeout</i>	The time (in seconds) for ICMP timeout
<i>GRE Timeout</i>	The time (in seconds) for GRE timeout
<i>ESP Timeout</i>	The time (in seconds) for ESP timeout
<i>Default Nat Age</i>	The default NAT Time Out (in seconds).

<i>NAPT Port Start</i>	The port value from which the port range can start
<i>NAPT Port End</i>	The port value at which the port range ends.
<i>Admin Status</i>	The desired NAT Status. It may be: <i>Enable, Disable</i>

Caution

None.

References

- ❖ *get nat global* command
- ❖ *nat rule status* related commands
- ❖ *nat rule stats* related commands
- ❖ *nat rule entry* related commands.

3.242 modify nbsize

Description

Use this command to modify sizing parameters. The modification takes effect only after the next reboot.

Command Syntax

```
modify nbsize [maxipsess max-num-ip-sessions] [httpport http-port]
[telnetport telnet-port] [ftpport ftp-port][serialauth enable|disable]
```

Parameters

Name	Description
<i>Maxipsess max-num-ip-sessions</i>	This specifies the maximum number of active IP sessions. Type: Optional Valid values: 100-2000
<i>Httpport http-port</i>	This specifies the HTTP port. Type: Optional Valid values: 80 or from 61000 to 62000
<i>Telnetport telnet-port</i>	This specifies the telnet port. Type: Optional Valid values: 23 or from 61000 to 62000
<i>Ftpport ftp-port</i>	This specifies the FTP port. Type: Optional Valid values: 21 or from 61000 to 62000
<i>serialauth enable disable</i>	This specifies Serial Port Authentication Mode. Type: Optional Valid Values: <i>Enable, Disable</i>

Mode

Super-User.

Example

```
$ modify nbsize maxipsess 200 serialauth enable
```

Output

Verbose Mode On

```
Max IP Session : 100      HTTP Port : 80
Telnet Port    : 23      FTP Port  : 21
Serial Auth    : disable
```

Set Done

```
Max IP Session : 200      HTTP Port : 80
Telnet Port    : 23      FTP Port  : 21
Serial Auth    : enable
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Max IP Session</i>	This specifies the maximum number of active IP sessions.
<i>HTTP Port</i>	This specifies the HTTP port.
<i>Telnet Port</i>	This specifies the telnet port.
<i>FTP Port</i>	This specifies the FTP port
<i>Serial Auth</i>	This specifies whether Serial Port Authentication is enabled or disabled.

Caution

None.

References

❖ *get nbsize* command

3.243 modify oam cc vc

Description

Use this command to to activate or de-activate OAM F5 end to end continuity check mechanism..

Command Syntax

```
modify oam cc vc ifname interface-name [mode auto|manual] [action act|deact] [dir src|sink|both] [ethercheck enable|disable]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the VC interface on which the continuity check is to be activated or de-activated. Type: Mandatory Valid values: aa15-*
<i>mode auto manual</i>	This specifies the mode of activation/deactivation of continuity check. Manual activates/de-activates immediately. Auto activates/de-activates through OAM activation/de-activation procedure. Type: Optional Valid values: auto or manual Default Value : auto
<i>action act deact</i>	This field specifies the CC action to be taken. This is used along with "dir" field. Act is activation. Deact is de-activation. Type: Optional Valid values: act or deact.
<i>dir src sink both</i>	This field specifies the direction for CC activation/deactivation. Direction could be source (src), sink or both. Type: Optional Valid values: src, sink, both
<i>ethercheck enable disable</i>	This field specifies whether ethernet device status should be checked before transmitting a CC cell. Type: Optional Valid values: enable, disable Default Value : disable.

Mode

Super-User.

Example

```
$ modify oam cc vc ifname aa15-0 mode auto action act dir both ethercheck enable
```

Output

Verbose Mode On

```
Ifname Mode SourceOperStatus EtherCheck SinkOperStatus Initiator
```

```
-----  
aal5-0  manual deactivated      disable      deactivated  -  
  
Set Done  
  
Ifname  Mode  SourceOperStatus EtherCheck SinkOperStatus Initiator  
-----  
aal5-0  auto  activated          enable      activated    Self
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Ifname</i>	This parameter specifies VC interface.
<i>Mode</i>	This specifies the mode of activation/deactivation of continuity check.
<i>SourceOperStatus</i>	This field specifies the current operational state of source point of the VCC.
<i>EtherCheck</i>	This field specifies whether ethernet device status should be checked before transmitting a CC cell.
<i>SinkOperStatus</i>	This field specifies the current operational state of sink point of the VCC.
<i>Initiator</i>	This field is valid only in auto mode and it specifies the current initiator of CC Activation/Deactivation.

Caution

References

❖ `get oam cc vc` command.

3.244 modify oam lpbk vc

Description

Use this command to start or stop OAM loopback.

Command Syntax

```
modify oam lpbk vc ifname interface-name [lbid oam-loopback-  
location-id] [e2e|seg]
```

Parameters

Name	Description
<i>vc ifname interface-name</i>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid aal5 interfaces should be displayed. Type: Mandatory Valid values: <i>aal5-0 - *</i>
<i>lbid oam-loopback-location-id</i>	This defines the loop back site which will loop-back the cell. Type: Optional Valid values: 0x followed by 32 Hexadecimal No. Default value: <i>0xffffffffffffffffffffffff</i>
<i>e2e seg</i>	This specifies the loop back type to be used. It may be either end-to-end or segment. Type: Optional Valid values: <i>e2e, seg</i> Default value: <i>e2e</i>

Mode

Super-User.

Example

\$ modify oam lpbk vc ifname aal5-0 seg

Output

Verbose Mode On

```
If-Name      : aal5-0   VPI      : 1      VCI      : 1
LB Type      : e2e
OAM Location Id : 0xffffffffffffffffffffffffffffffff
OAM LB Result : E2e Succeeded
```

Set Done

```
If-Name      : aal5-0   VPI      : 1      VCI      : 1
LB Type      : seg
OAM Location Id : 0xffffffffffffffffffffffffffffffff
OAM LB Result : Test In Progress
```

Verbose Mode Off

Set Done

Output field description

Field	Description
-------	-------------

<i>If-Name</i>	The name of the aal5 (<i>aa/5-0</i> etc.) interface whose statistics are to be retrieved.
<i>VPI</i>	This is the Virtual Port Identifier
<i>VCI</i>	This is the Virtual Circuit Identifier
<i>LB Type</i>	This specifies the loop back type used. It may be: <i>e2e</i> or <i>seg</i>
<i>OAM Location Id</i>	This defines the loop back site which was used to loopback the cell.
<i>OAM LB Result</i>	This specifies the result of the loop back test. It may be <i>Result Unavailable</i> , <i>Seg Succeeded</i> , <i>Seg Failed</i> , <i>E2e Succeeded</i> , <i>E2e Failed</i> , <i>Test Aborted</i> , or <i>Test In Progress</i>

Caution

None.

References

- ❖ *get oam lpbk* command
- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *atm port* and *statistics* related commands.

3.245 modify pfrac block

Description

Use this command to modify the pfrac block status for a given protocol.

Command Syntax

modify pfrac block protocol
IPV6MCAST| 8021Q| ARP| BPD
U| IPX| NETBEUI| APPLETALK| RARP| IPMCAST| PPE| L2WALL
enable| disable

Parameters

Field	Description
<i>protocol</i> <i>IPV6MCAST 8021Q ARP BPD</i> <i>U IPX NETBEUI APPLETALK</i> <i> RARP IPMCAST PPE L2WALL</i>	This specifies the protocol for which pfrac rule needs to be blocked/unblocked. Type: Mandatory Valid Values: IPV6MCAST, 8021Q, ARP, BPD, IPX, NETBEUI, APPLETALK, RARP, IPMCAST, PPE, L2WALL
<i>enable disable</i>	This specifies the rule status of the Pfrac Rule. Type: Mandatory Valid Values: enable, disable

Mode

Super-User.

Example

\$ modify pfrac block protocol L2WALL disable

Output

Verbose Mode On

```
Protocol      : L2WALL      Rule status : enable
Set Done
Protocol      : L2WALL      Rule status : disable
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Protocol</i>	This object specifies the protocol for which pfrac rule needs to be blocked/unblocked.
<i>Rule status</i>	This specifies the rule status of the pfrac Rule.

Caution

None.

References

❖ *get pfrac block* command

3.246 modify pfrac global

Description

Use this command to modify global parameters of raw filter.

Command Syntax

modify pfraw global [enable|disable] [accept|deny|callmgmt]

Parameters

Field	Description
<i>enable disable</i>	This identifies whether to enable the raw filter feature or to disable it. Type: Optional Valid values: <i>enable</i> or <i>disable</i>
<i>accept deny callmgmt</i>	This identifies the default action incase the packet does not match any of the rules. Type: Optional Valid values: <i>accept</i> , <i>deny</i> or <i>callmgmt</i>

Mode

Super-User.

Example

```
$ modify pfraw global enable
```

Output

Verbose Mode On

```
Status      : Disable
Default action : Deny
```

Set Done

```
Status      : Enable
Default action : Deny
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>status</i>	This field indicates whether the raw filter status is enabled or disabled.
<i>default action</i>	This field indicates the default action to be taken if the packet does not match any of the rules specified.

Caution

None.

References

- ❖ `modify pfraw rule entry` command
- ❖ `modify pfraw subrule entry` command

3.247 modify pfraw rule entry

Description

Use this command to modify the attributes of a rule.

Command Syntax

```
modify pfraw rule entry ruleid rule-id [enable|disable]  
[log disable|match|nomatch|all] [act accept|deny|callmgmt]
```

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the rule index of the rule whose attributes need to be changed. Type: Mandatory Valid values: 0 -65535 Only existing rule ids accepted as input.
<i>enable disable</i>	This specifies whether this rule should be enabled or disabled. Type: Optional Valid values: enable or disable
<i>log disable match nomatch all</i>	This specifies the log option of this rule. Type: Optional Valid values: disable or match or nomatch or all
<i>Act accept deny callmgmt</i>	This specifies the action to be taken when a packet matches this rule. Type: Optional Valid values: accept or deny or callmgmt.

Mode

Super-User

Example

```
$ modify pfraw rule entry ruleid 2 log match
```

Output

Verbose Mode On:

```
Rule id      : 2          Rule status   : Enable
Interface    : eth-0      In interface  : All
Direction    : Out       Action         : Accept
Logging      : Disable
```

Set Done

```
Rule id      : 2          Rule status   : Enable
Interface    : eth-0      In interface  : All
Direction    : Out       Action         : Accept
Logging      : Match
```

Verbose Mode Off:

Set Done

Output field description

Field	Description
<i>Rule id</i>	This identifies the rule index of the rule.
<i>Rule Status</i>	This specifies whether this rule is enabled or disabled.
<i>Interface</i>	This specifies the interface name for a rule.
<i>In Interface</i>	This specifies the incoming interface for the given outgoing interface.
<i>Direction</i>	This specifies the filtering direction to which this rule is applied.
<i>Action</i>	This specifies the action taken when a packet matches this rule
<i>Logging</i>	This specifies the log option of this rule

Caution

None.

References

- ❖ `modify pfraw global` command
- ❖ `modify pfraw subrule entry` command

3.248 modify pfraw subrule entry

Description

Use this command to modify the attributes of a sub-rule of an already existing rule.

Command Syntax

```
modify pfraw subrule entry ruleid rule-id subruleid sub-rule- id  
[mask mask-value] [start linkh|iph|tcph|tcpd|udph|udp|  
icmph|icmpd] [offset offset] [enable|disable] [cmpt
```

{eq|neq|lt|lteq|gt|gteq val}|{range low-val high-val}|{any}}

Parameters

Name	Description
<i>ruleid rule-id</i>	This identifies the rule index of the rule for which the sub-rule has to be modified. Type: Mandatory Valid values: 0 - 65535 Only existing rule ids accepted as input.
<i>subruleid sub-rule-id</i>	This specifies the sub-rule index of the sub-rule which has to be modified. Type: Mandatory Valid values: 0 - 254 Only existing sub rule ids accepted as input.
<i>mask mask-value</i>	This specifies the mask. The mask length cannot be modified. Type: Optional Valid values: any hexadecimal pattern starting with 0x.
<i>start linkh iph tcph tcpd udph udp icmph icmpd</i>	This specifies the beginning position in the packet for an offset. The start position can be the beginning of the header or data portions of various protocols as listed below. Type: Optional Valid values: <i>linkh iph tcph tcpd udph udp icmph icmpd</i>
<i>offset offset</i>	This specifies the offset with in the header or data part of the packet, calculated from the <i>start</i> . Type: Optional Valid values: 0—4294967295
<i>enable disable</i>	This specifies whether this subrule should be enabled or disabled. Type: Optional Valid values: <i>enable</i> or <i>disable</i>
<i>Cmpt {eq neq lt lteq gt gteq val} {range low-val high- val} {any}</i>	This specifies the type of comparison that can be done on the extracted data and the comparison value(s). Type: Optional Valid values: <i>val</i> , <i>low-val</i> and <i>high-val</i> are hexadecimal patterns to be used for comparison. <i>low-val</i> and <i>high-val</i> are used when range related comparison is to be done else <i>val</i> is used. The value(s) should start with 0x. If no comparison has to be done then <i>any</i> is given on the command line

Mode

Super-User.

Example

```
$ modify pfraw subrule entry ruleid 2 subruleid 1 offset 10
```

Output

Verbose Mode On

```
Sub Rule id : 1 Rule id : 2
Sub Rule status : Enable Offset from : Linkh
Offset : 6
Comp operation : Range
Low value : 0x00000000ff000000
High value : 0x00000000ffcd0000
Mask : 0x00000000ffff0000
```

Set Done

```
Sub Rule id : 1 Rule id : 2
Sub Rule status : Disable Offset from : Linkh
Offset : 10
Comp operation : Range
Low value : 0x00000000ff000000
High value : 0x00000000ffcd0000
Mask : 0x00000000ffff0000
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Sub Rule id</i>	This identifies the sub-rule index of the sub-rule.
<i>Rule id</i>	This specifies the rule index of the rule of which this is the subrule
<i>Sub Rule status</i>	This specifies whether this subrule is enabled or disabled.
<i>Offset from</i>	This specifies the beginning position in the packet for an offset. The start position can be the beginning of the header or data portions of various protocols.
<i>Offset</i>	This specifies the offset with in the header or data part of the packet.
<i>Comp Operation</i>	This specifies the type of comparison that is done on the extracted data and the comparison value(s)
<i>Low Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>High Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Range.
<i>Value</i>	This is hexadecimal pattern to be used for comparison when comparison type is Relational.
<i>Mask</i>	This is hexadecimal pattern which specifies the mask

Caution

None.

References

❖ *modify pfraw global command*

❖ *modify pppoe rule entry* command**3.249 modify ppe cfg****Description**

Use this command to modify PPPoE global configuration parameters.

Command Syntax

```
modify ppe cfg [padimax max-padi-attempts] [pdrmax max-padr-attempts] [discmax max-discovery-attempts] [paditime initial-padi-time-difference] [pdrtime initial-padr-time-difference] [first-come|serv-to-ac]
```

Parameters

Name	Description
<i>padimax max-padi-attempts</i>	This specifies the maximum number of PADI attempts that shall be made by PPPoE on not receiving PADO. Type: Optional Valid values: 1-255
<i>pdrmax max-padr-attempts</i>	This specifies the maximum number of PADR attempts that shall be made by PPPoE on not receiving PADS. Type: Optional Valid values: 1-255
<i>discmax max-discovery-attempts</i>	This specifies the maximum number of discovery attempts that shall be made by PPPoE Type: Optional Valid values: 1-255
<i>paditime initial-padi-time-difference</i>	This specifies the initial PADI time difference (in seconds). Type: Optional Valid values: 1-255
<i>pdrtime initial-padr-time-difference</i>	This specifies the initial PADR time difference (in seconds) Type: Optional Valid values: 1-255
<i>first-come serv-to-ac</i>	This specifies the default AC selection policy used by the PPPoE. Type: Optional

Mode

Super-User.

Example

`$ modify ppe cfg serv-to-ac`

Output

Verbose Mode On

```
Max PADI Attempts           : 3      Max PADR Attempts           : 3
Max Disc Attempts           : 3      Initial PADI Time Diff (sec) : 5
Initial PADR Time Diff (sec) : 5      AC Selection Policy         : first-come
```

Set Done

```
Max PADI Attempts           : 3      Max PADR Attempts           : 3
Max Disc Attempts           : 3      Initial PADI Time Diff (sec) : 5
Initial PADR Time Diff (sec) : 5      AC Selection Policy         : serv-to-ac
```

Verbose Mode Off

Set Done

\Output field description

Field	Description
<i>Max PADI Attempts</i>	This specifies the maximum number of PADI attempts that shall be made by PPPoE on not receiving PADO.
<i>Max PADR Attempts</i>	This specifies the maximum number of PADR attempts that shall be made by PPPoE on not receiving PADS
<i>Max Disc Attempts</i>	This specifies the maximum number of discovery attempts that shall be made by PPPoE
<i>Initial PADI Time Diff (Secs)</i>	This specifies the initial PADI time difference (in seconds).
<i>Initial PADR Time Diff (Secs)</i>	This specifies the initial PADR time difference (in seconds)
<i>AC Selection Policy</i>	This specifies the default AC selection policy used by the PPPoE. It may be: <i>first-come, serv-to-ac</i>

Caution

None.

References

- ❖ `get ppe cfg` command
- ❖ `ppe pconf` related commands
- ❖ `ppe stats global` related commands
- ❖ `ppe stats session` related commands

3.250 modify ppp global

Description

Use this command to modify PPP global information.

Command Syntax

```
modify ppp global [pppsesstimer ppp-sess-timer] [ignorewantolan true|false]
```

Parameters

Name	Description
<i>Pppsesstimer ppp-sess-timer</i>	Inactivity timeout for PPP sessions. Type: Optional Valid values : 1 - 4294967295
<i>Ignorewantolan true false</i>	Flag indicating whether to ignore WAN to LAN traffic for PPP Session timeout. Type: Optional Valid Values : true or false

Mode

Super-User.

Example

```
$ modify ppp global pppsesstimer 10
```

Output

Verbose Mode On

```
PPP Inactivity Timeout : 0 Ignore WAN to LAN traffic : False  
Set Done.  
PPP Inactivity Timeout : 10 Ignore WAN to LAN traffic : False
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>PPP Inactivity Timeout</i>	This specifies the Inactivity timeout for PPP sessions.
<i>Ignore WAN to LAN traffic</i>	Flag indicating whether to ignore WAN to LAN traffic for PPP Session timeout.

Caution

None.

References

❖ *get ppp global* command

3.251 modify ppp intf

Description

Use this command to modify PPP interface parameters.

Command Syntax

```
modify ppp intf ifname interface-name  
[start|stop|startondata] [mru<decvalue>]  
[magic true|false] [l2tpcalltype  
outlns|outlac|inlns|inlac]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the PPP interface which is to be modified. Type: Mandatory Valid values: <i>ppp-0 - *; ...</i>
<i>mru<decvalue></i>	Maximum Receive unit
<i>magic true false</i>	Magic number negotiation
<i>start stop startondata</i>	Setting of this object results in start and stop of the PPP session on this interface. If the session is already started then only stop value can be set. startondata will cause the PPP link to start only after there is some data activity. Type: Optional
<i>l2tpcalltype</i> <i>outlns outlac inlns inlac</i>	This object indicates the l2tp call type. Type: optional Values: outlac, outlns, inlac, inlns

Mode

Super-User.

Example

```
$ modify ppp intf ifname ppp-0 usedhcp true l2tpcalltype outlns
```

Output

Verbose Mode On

```
If-Name           : ppp-0           L2TP Call type   : inlac
Interface Sec Type : Public         Phy Interface     : aal5-0
Configured IP Address : 0.0.0.0       NAT Direction    : OUT
Init MRU          : 1500           Magic            : False
Encapsulation     : PPPOA         Service Name     : -
UseDhcp           : False         UseDns          : False
DRoute           : False         Status          : Start
Gateway IP Address : 202.1.1.2     Associated Num If-Name : eth-0
Use Gateway       : remote
```

Set Done

```
If-Name           : ppp-0           L2TP Call type   : inlac
Interface Sec Type : Public         Phy Interface     : aal5-0
Configured IP Address : 0.0.0.0       NAT Direction    : OUT
Init MRU          : 1500           Magic            : False
Encapsulation     : PPPOA         Service Name     : -
UseDhcp           : False         UseDns          : False
DRoute           : False         Status          : Start
Gateway IP Address : 202.1.1.2     Associated Num If-Name : eth-0
Use Gateway       : remote
```

Verbose Mode Off

Set Done

Output field description

Field	Description
If-Name	This specifies the PPP interface for the PPP Links: It may be: <i>ppp-0, ppp-1...</i>
L2TP Call Type	This field specifies the l2tp call type.
Interface Sec Type	Interface security type.
Phy Interface	This specifies Name of the lower interface on which PPP is running. It may be: <i>aal5-0, aal5-1...</i>
Configured IP Address	This specifies the IP Address for the PPP Link.
NAT Direction	This variable specifies whether this interface's address is inside or outside. It may be: <i>inside, outside, none</i>
Init MRU	The initial Maximum Receive Unit (MRU) that the local PPP entity will advertise to the remote entity
Magic	This specifies whether the local node will attempt to perform Magic Number negotiation with the remote node. It may be: <i>True, False</i>

<i>Encapsulation</i>	This specifies the lower layer protocol used below this PPP Link. It may be: <i>PPPOA, PPPOE</i>
<i>Service Name</i>	This specifies the service name used for PPPoE. It is generally the name of the ISP.
<i>UseDhcp</i>	This specifies whether DHCP is to be used for address negotiation. It may be either True or False
<i>UseDns</i>	This specifies whether DNS server addresses are to be obtained using IPCP or not.
<i>Droute</i>	Default Route
<i>Status</i>	This shows whether PPP session on this interface is active. It may be: <i>Start, Stop, StartOnData</i> .
<i>Gateway IP Address</i>	This specifies the IP Address of the Gateway.
<i>Associated Num If-Name</i>	This specifies the interface name of the associated numbered interface. A "-" indicates that this ppp interface is not associated with any numbered interface.
<i>Use Gateway</i>	This specifies whether local or remote gateway is to be used.

Caution

None.

References

- ❖ *delete ppp intf* command
- ❖ *create ppp intf* command
- ❖ *get ppp intf* command
- ❖ *ppp lstatus* related commands
- ❖ *ppp security* related commands.

3.252 modify ppp security

Description

Use this command to change the login or password setting for the PPP Interface.

Command Syntax

```
modify ppp security ifname interface-name [pap|chap] [login login-name] [passwd password]
```

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the PPP interface for which the security entry is to be modified.

	Type: Mandatory Valid values: <i>ppp-0 - *, ..., default.</i> The <i>default</i> entry gets used in case there is no specific entry for that interface.
<i>pap chap</i>	This is the protocol used for authentication Type: Optional Default value: pap
<i>login login-name</i>	This is the login name Type: Optional Valid values: String of up to 128 Characters('A'- 'Z', 'a'-'z', '0'-'9','-', '_') and any combination of printable characters excluding ';'
<i>passwd password</i>	This is the password used to authenticate the user Type: Optional Valid values: String of Upto 128 Characters('A'- 'Z', 'a'-'z', '0'-'9','-', '_') and any combination of printable characters excluding ';'

Mode

Super-User.

Example

```
$ modify ppp security ifname ppp-0 login xyz passwd wer
```

Output

Verbose Mode On

```
IfName : ppp-0      Protocol : PAP
Login  : abc
```

Set Done

```
IfName : ppp-0      Protocol : PAP
Login  : xyz
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>IfName</i>	This specifies the PPP interface for which the security entry has been modified It may be: <i>ppp-0 - *, ..., default.</i> The <i>default</i> entry gets used in case there is no specific entry for that interface.
<i>Protocol</i>	This is the protocol used for authentication It may be: <i>PAP, CHAP</i>
<i>Login</i>	This is the login name.

Caution

None.

References

- ❖ *delete ppp security* command
- ❖ *get ppp security* command
- ❖ *create ppp security* command
- ❖ *ppp lstatus* related commands
- ❖ *ppp intf* related commands

3.253 modify rip global

Description

This command is used for modifying global parameters of RIP.

Command Syntax

modify rip global [enable|disable] [updatetime update-time] [agetime age-time]

Parameters

Name	Description
<i>enable disable</i>	Dynamically Enable/Disable RIP on IAD. Type: Optional Valid values: <i>enable</i> or <i>disable</i>
<i>updatetime update-time</i>	This is the timer frequency at which the RIP would broadcast its routes to all its neighbors Type: Optional Valid values: 1-4294967295
<i>agetime age-time</i>	This is the timer frequency at which RIP would age a route, if an update is not received for this duration. This value should be larger than the ripUpdateTime. It is recommended for ripAgeTime = 6*ripUpdateTime. Type: Optional Valid values: 1-4294967295

Mode

Super-User

Example

\$ modify rip global enable updatetime 10

Output

Verbose Mode On

```
RIP status : enable
RIP route update time(sec) : 20
RIP route age time(sec) : 20
```

Set Done

```
RIP status : enable
RIP route update time(sec) : 10
RIP route age time(sec) : 20
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>RIP status</i>	This tells whether RIP is enabled or disabled
<i>RIP route update time</i>	This tells the timer frequency at which the RIP would broadcast its routes to all its neighbors
<i>RIP route age time</i>	This tells the timer frequency at which RIP would age a route, if an update is not received for this duration.

Caution

None.

References

None.

3.254 modify rip intf

Description

Use this command to modify RIP protocol parameters on the specified IP Interface.

Command Syntax

```
modify rip intf ifname interface-name [send  
{rip1|rip2|rip1compat|none}] [senddefroute
```

```
{enable|disable}] [receive {rip1|rip2|both|none}]  
[recvdefroute {enable|disable}] [auth {none|text password}]
```

Parameters

Name	Description
<i>ifname interface-name</i>	Specifies the IP Interface name on which RIP is to be started. Type: Mandatory Valid values: <i>eth-0, veth-0 - *, ppp-0, ppp-0-* eoa-0 - *, ipoa-0-*, usb-0</i>
<i>send {rip1 rip2 rip1compat none}</i>	This specifies the packet format to be used for sending RIP updates and requests Type: Optional Valid values: <i>rip1, rip2, rip1compat, none</i>
<i>senddefroute {enable disable}</i>	If Default route is to be included in the updates sent on the interface, or not. Type: Optional Valid values: <i>enable or disable</i>
<i>receive {rip1 rip2 both none}</i>	This specifies the packet format to be accepted while receiving RIP updates and requests and responses Type: Optional Valid values: <i>rip1, rip2, both, none</i>
<i>Recvdefroute {enable disable}</i>	If Default route is to be processed in the updates received on the interface or not. Type: Optional Valid values: <i>enable or disable</i>
<i>auth none auth text password</i>	If ripAuthentication has been enabled, what should be the password. If ripAuthentication is Text then ripAuthPasswd cannot be left blank Type: Optional Valid values: <i>none</i> or if <i>text</i> then <i>password</i> of length 16

Mode

Super-User

Example

```
modify rip intf ifname ppp-0 metric 2 senddefroute disable
```

Output

Verbose Mode On:

```
IP Interface Name      : ppp-0                      RIP Interface Metric : 1  
RIP Send Mode         : rip1      RIP Receive Mode     : rip1  
RIP Send Def Route    : Enable    RIP Recv Def Route   : Disable  
RIP packet auth      : None
```

Set Done

```
IP Interface Name      : ppp-0      RIP Interface Metric : 2
RIP Send Mode         : rip1       RIP Receive Mode     : rip1
RIP Send Def Route    : Enable     RIP Recv Def Route   : Disable
RIP packet auth       : None
```

Verbose Mode Off:

Set Done

Output field description

Field	Description
<i>IP Interface Name</i>	This tells the IP Interface name on which RIP is to be stopped.
<i>RIP Interface Metric</i>	This tells the metric value attached to the interface. The metric is used by RIP in deciding which among alternate routes is the most optimal.
<i>RIP Send Mode</i>	This tells the packet format used for sending RIP updates and requests
<i>RIP Receive Mode</i>	This tells the packet format accepted while receiving RIP updates and requests and responses
<i>RIP Send Def Route</i>	This tells whether default route is to be included in the updates sent on the interface, or not.
<i>RIP Recv Def Route</i>	This tells whether default route is to be processed in the updates received on the interface or not.
<i>RIP packet auth</i>	This tells whether RIP authentication is enabled or not.

Caution

None.

References

None.

3.255 modify smtp servaddr

Description

Use this command to modify SMTP server address.

Command Syntax

```
modify smtp servaddr [ip-address|dname domain-name]
```

Parameters

Name	Description
------	-------------

<i>ip-address dname domain-name</i>	This parameter specifies the IP address or fully qualified domain name used for configuring the SMTP server address. 0.0.0.0 IP address will remove the existing server address. Type: Mandatory Valid values: Valid IP address or fully qualified domain name.
-------------------------------------	---

Mode

Super-User

Example

```
$ modify smtp servaddr 192.168.1.1
```

Output

Verbose Mode On:

```
Server Address      Server Domain Name
-----
192.168.10.20      abc.xyz.com

Set Done
```

```
Server Address      Server Domain Name
-----
192.168.1.1        def.wxy.com
```

Verbose Mode Off:

Set Done

Output field description

Field	Description
<i>Server Address</i>	IP address of the SMTP server.
<i>Server Domain Name</i>	The fully qualified domain name of the SMTP server.

Caution

None.

References

- ❖ *get smtp servaddr* command

3.256 modify snmp trap

Description

Use this command to enable or disable SNMP traps.

Command Syntax

```
modify snmp trap {enable|disable}
```

Parameters

Name	Description
<i>enable disable</i>	This specifies whether SNMP Traps are to be enabled or disabled. Type: Mandatory

Mode

Super-User.

Example

```
$ modify snmp trap disable
```

Output

Verbose Mode On

```
Snmp Trap Enabled
```

```
Set Done
```

```
Snmp Trap Disabled
```

Verbose Mode Off

```
Set Done
```

Output field description

Field	Description
<i>Snmp Trap</i>	This is the SNMP Trap Status. It may be: <i>Enabled</i> , <i>Disabled</i>

Caution

None.

References

- ❖ *get snmp trap* command
- ❖ *snmp host* related commands
- ❖ *snmp comm* related commands
- ❖ *snmp stats* related commands.

3.257 modify sntp cfg

Description

Use this command to modify the SNTP configuration.

Command Syntax

modify sntp cfg [enable|disable]

Parameters

Name	Description
<i>enable disable</i>	SNTP service is enabled or disabled. Type: Optional Valid values: enable or disable

Mode

Super-User.

Example

\$ modify sntp cfg enable

Output

Verbose Mode On

Status : Disable

Set Done

Status : Enable

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Status</i>	SNTP service is disabled or enabled.

Caution

None.

References

- ❖ `create sntp servaddr` command
- ❖ `get sntp servaddr` command
- ❖ `delete sntp servaddr` command
- ❖ `get sntp cfg` command
- ❖ `get sntp stats` command
- ❖ `reset sntp stats` command

3.258 modify stp info

Description

Use this command to alter the configuration for the spanning tree protocol group.

Command Syntax

```
modify stp info [priority priority-value] [maxage maximum-age] [htime hello-time] [fdelay forward-delay] [enable|disable]
```

Parameters

Name	Description
<i>priority priority-value</i>	The priority value accorded to the bridge. This should be input in Hexadecimal Format. It forms the 1 st two octets of the Designated Bridge Id. Type: Optional Valid values: 0-65535
<i>maxage maximum-age</i>	The value (in seconds) that all bridges use for MaxAge when this bridge is acting as the root. Type: Optional Valid values: 6-40
<i>htime hello-time</i>	The value (in seconds) that all bridges use for Hello-Time when this bridge is acting as the root Type: Optional Valid values: 1-10
<i>fdelay forward-delay</i>	The value (in seconds) that all bridges use for Forward Delay when this bridge is acting as the root.

	Type: Optional Valid values: 4-30
Enable disable	Global status of STP

Mode

Super-User.

Example

```
$ modify stp info priority 0x20 maxage 25 htime 5 fdelay 20 enable
```

Output

Verbose Mode On

```
Protocol Spec.      : IEEE 8021D          Priority          :
0x8000
Top. Changes       : 1                  Curr Top. Age(sec)
: 35.0
Desig Root         : 80:00:00:10:5A:6C:DB:20  Root Cost         : 0
Root If-name       : None                Hold Time (sec)
: 1.0
Br Max Age(sec)    : 20                  Curr Max Age (sec)
: 20.0
Br Hello Time(sec) : 2                  Curr Hello
Time(sec) : 2.0
Br Fwd Delay(sec)  : 15                  Curr Fwd Delay (sec)
: 15.0
Status             : Disable
```

Set Done

```
Protocol Spec.      : IEEE 8021D          Priority          :
0x8000
Top. Changes       : 1                  Curr Top. Age(sec)
: 35.0
Desig Root         : 80:00:00:10:5A:6C:DB:20  Root Cost         : 0
Root If-name       : None                Hold Time (sec)
: 1.0
Br Max Age(sec)    : 20                  Curr Max Age (sec)
: 20.0
Br Hello Time(sec) : 2                  Curr Hello
Time(sec) : 2.0
Br Fwd Delay(sec)  : 15                  Curr Fwd Delay
(sec) : 15.0
Status             : Enable
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Protocol Spec</i>	This indicates the Spanning Tree Protocol running. It may be:

	DECLB100, IEEE 8021D, Unknown
<i>Priority</i>	Bridge Priority. It is equal to the value of the 1 st 2 octets of the designated Bridge Id. The value as given in 'bridge static' commands represents the last 6 octets of the Id.
<i>Top. Changes</i>	This specifies the number of times the topology was changed since reset
<i>Curr Top. Age (Sec)</i>	This specifies the time elapsed (in seconds) since the last topology change
<i>Desig Root</i>	This specifies The Bridge Id of the root of the spanning tree as determined by the STP running on this node. This value is used as the Root Identifier parameter in all Configuration Bridge PDUs originated by this node.
<i>Root Cost</i>	The cost of the path to the root as seen from this bridge
<i>Root If-name</i>	The interface which offers the lowest cost path from this bridge to the root bridge
<i>Hold Time (Sec)</i>	This minimum time interval in seconds, between two Configuration bridge PDUs transmitted by this node.
<i>Br Max Age (Sec)</i>	The maximum age (in seconds) of Spanning Tree Protocol information learned from the network on any port before it is discarded when this Bridge is the root of the Spanning Tree. It may range between 6 and 40.
<i>Curr Max Age (Sec)</i>	The actual maximum age (in seconds) of Spanning Tree Protocol information learned from the network on any port before it is discarded. It is derived from the Br Max Age of the Root Node. 802.1D-1990 specifies that the range for this parameter is related to the value of "Br Hello Time"
<i>Br Hello Time (Sec)</i>	The value (in seconds) that all bridges use for Hello-Time when this bridge is acting as the root. It may range between: 1 and 10
<i>Curr Hello Time (Sec)</i>	The actual amount of time between the transmission of Configuration bridge PDUs by this node on any port
<i>Br Fwd Delay (Sec)</i>	The value (in seconds) that all bridges use for Forward Delay when this bridge is acting as the root. 802.1D-1990 specifies that the range for this parameter is related to the value of "Br Max Age". It may range between: 4 and 30
<i>Curr Fwd Delay (Sec)</i>	This actual time value (in seconds) which determines how fast a port changes its spanning state when moving towards the Forwarding state. It is used to determine how long the port stays in each of the Listening and Learning states, which precede the Forwarding state; and also when a topology change has been detected and is underway, to age all dynamic entries in the Forwarding Database.
<i>Status</i>	Global status of STP

Caution

None.

References

❖ `get stp global` command

❖ *STP port* related commands.

3.259 modify stp port

Description

Use this command to alter the configuration for the spanning tree protocol.

Command Syntax

```
modify stp port ifname interface-name [enable|disable] [pcost path-cost] [priority priority-value]
```

Parameters

Name	Description
<i>ifname interface-name</i>	The port number of the port for which modification are to be done. Type: Mandatory Valid values: <i>eth-0, aal5-0 - *</i>
<i>enable disable</i>	Admin status of Port. Type: Optional Valid values: <i>enable, disable</i>
<i>pcost path-cost</i>	The contribution of this port to the path cost of paths towards the spanning tree root which included this port. Type: Optional Valid values: <i>1-65535</i>
<i>priority priority-value</i>	The value of the priority field. It should be input in Hexadecimal Format. Type: Optional Valid values: <i>0x0 to 0xFF</i>

Mode

Super-User.

Example

```
$ modify stp port ifname eth-0 disable pcost 1000 priority 0x10
```

Output

Verbose Mode On

```
Port Name      : eth-0                Priority      : 0x0
State         : Forwarding            Status       : Enable
Path Cost     : 100                  Desig Cost   : 0
Desig Root    : 80:00:00:10:5A:6C:DB:20 Desig Bridge: 80:00:00:10:5A:6C:DB:20
Desig Port    : 0x8000                Fwd Transitions : 1
```

Set Done

```

Port Name      : eth-0                Priority      : 0x10
State         : Disabled              Status       : Disable
Path Cost     : 1000                  Desig Cost   : 0
Desig Root    : 80:00:00:10:5A:6C:DB:20  Desig Bridge : 80:00:00:10:5A:6C:DB:20
Desig Port    : 0x8000                Fwd Transitions : 1

```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Port Name</i>	The port for which this entry contains Spanning Tree Protocol management information
<i>Priority</i>	Port Priority. It is contained in the first octet of the 2 octet Port Id. The other octet is used to derive the port name above.
<i>State</i>	The port's current state for STP. This state controls what action a port takes on reception of a frame. For example, a malfunctioning port will be placed in the broken state. The valid values are: Disabled, Blocking, Listening, Learning, Forwarding, Broken
<i>Status</i>	The Admin Status of the port. The possible values are: <i>Enable, Disable</i>
<i>Path Cost</i>	The contribution of this port to the path cost of paths towards the spanning tree root which included this port. 802.1D-1990 recommends that the default value of this parameter be in inverse proportion to the speed of the attached LAN.
<i>Desig Cost</i>	The path cost of the Designated Port of the segment connected to this port. This value is compared to the Root Path Cost field in received
<i>Desig Root</i>	The unique Bridge Identifier of the Bridge recorded as the Root in the Configuration BPDUs transmitted by the Designated Bridge for the segment to which the port is attached
<i>Desig Bridge</i>	The Bridge Identifier of the bridge which this port considers to be the Designated Bridge for this port's segment
<i>Desig Port</i>	The Port Identifier of the port on the Designated Bridge for this port's segment
<i>Fwd Transitions</i>	The number of times this port has transitioned from the Learning state to the Forwarding state

Caution

The specified interface should be an existing bridge interface. Please refer to the `create bridge port intf` command.

References

- ❖ *get stp port* command
- ❖ *create bridge port* command
- ❖ *stp global* related commands
- ❖ *bridge ports* related commands

3.260 modify system

Description

Use this command to modify the system parameters.

Command Syntax

```
modify system [contact sys-contact] [model model-name] [location sys-location] [vendor sys-vendor-info] [logthresh sys-log-threshold] [systime systime] [dst <on|off>] [timezone <timezone>] [name <name>] [dname <domain>]
```

Parameters

Name	Description
<i>contact sys-contact</i>	This contains the textual identification of the contact person for this modem, together with information on how to contact this person Type: Optional Valid values: String of upto 64 ASCII Characters
<i>model model-name</i>	This specifies the name of the modem Type: Optional Valid values: String of upto 64 ASCII Characters
<i>location sys-location</i>	This specifies the physical location of this modem Type: Optional Valid values: String of upto 64 ASCII Characters
<i>vendor sys-vendor-info</i>	This contains the vendor-specific information Type: Optional Valid values: String of upto 64 ASCII Characters
<i>logthresh sys-log-threshold</i>	This specifies the severity level of trap equal to or lower than that shall be logged. 1 is the lowest and represents critical traps. Type: Optional Valid values: 0-4
<i>systime systime</i>	This specifies the current system time Type: Optional Valid values: System Time String in format. The total string length must be 20 characters. Single digits should be prepended with a '0', e.g. '1' should be given as '01'

	mon dd hh:mm:ss year e.g. "Feb 01 21:20:10 2001"
name <name>	This contains the host name for this modem Type: Optional Valid values: String of upto 64 ASCII Characters
dst <on off>	This specifies if the Daylight Savings Time has been enabled or not. Type: Optional Valid values: on off
timezone <timezone>	This specifies the timezone that has been set on the modem Type: Optional Valid values: +hhmm
dname <domain>	This contains the domain name for this modem. Type: Optional Valid values: String of upto 63 ASCII Characters

Mode

Super-User.

Example

```
$ modify system systime "Feb 01 21:20:10 2001" model "titanium" dname "globespanvirata"
```

Output

Verbose Mode On

```
Model          : Titanium
Name           : Name of the unit
Domain Name    : globespanvirata
Description    : DSL Modem
Location      : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ 07701,U.S.A
Contact       : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ 07701,U.S.A
Vendor        : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ 07701,U.S.A
LogThreshold   : 0
Object-id     : 1.3.6.1.4.1.200
HwVersion     : 71fb0922
SwVersion     : VIK-1.37.020524a/T93.3.8
DSL Version    : T93.3.8
System Time   : Feb 01 21:20:10 2001
Time Zone     : GMT
DST           : Off
Services      : physical datalink internet end-to-end applications
UpTime (HH:MM:SS) : 0:0:9
```

```
Set Done
Model          : Titanium
Name           : Name of the unit
Domain Name    : globespanvirata
Description    : DSL Modem
```

Location : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ
07701,U.S.A
Contact : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ 07701,U.S.A
Vendor : GlobespanVirata Inc.,100 Schulz Drive, Red Bank,NJ
07701,U.S.A
LogThreshold : 0
Object-id : 1.3.6.1.4.1.200
HwVersion : 71fb0922
SwVersion : VIK-1.37.020524a/T93.3.8
DSL Version : T93.3.8
System Time : Feb 01 21:20:10 2001
Time Zone : GMT
DST : Off
Services : physical datalink internet end-to-end applications
UpTime (HH:MM:SS) : 0:0:9

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Model</i>	This specifies the name of the system
<i>Name</i>	This specifies the host name of the modem
<i>Domain name</i>	This specifies the domain name of the modem.
<i>Description</i>	This is textual description of the entity
<i>Location</i>	This specifies the physical location of this node
<i>Contact</i>	This shows the textual identification of the contact person for this managed node, together with information on how to contact this person.
<i>Vendor</i>	This shows the vendor-specific information
<i>LogThreshold</i>	This specifies the severity level of trap equal to or lower than that shall be logged. 1 is the lowest and represents critical traps.
<i>Object-id</i>	This shows the vendor's authoritative identification of the network management subsystem contained in the entity.
<i>HwVersion</i>	This specifies the hardware and firmware version of the system.
<i>SwVersion</i>	This specifies the software version of the system
<i>DSL Version</i>	This specifies the DSL-version of the system
<i>System Time</i>	This shows the current system time.
<i>Time Zone</i>	This specifies the time zone that has been set on the modem.
<i>DST</i>	This specifies whether Daylight Saving Time has been enabled or not.
<i>Services</i>	This specifies the functionality provided by this node. These may be: <i>physical, datalink, internet, end-to-end, applications</i>
<i>Up Time</i>	This specifies the time in seconds since the system is up

Caution

None.

References

- ❖ `get system` command
- ❖ `commit` command.

3.261 modify system timezone

Description

Use this command to modify the system parameters.

Command Syntax

Parameters

Name	Description

Mode

Example

Output

Verbose Mode On

Verbose Mode Off

Set DoneOutput field description

Field	Description

Caution

References

3.262 modify trace cfg

Description

Use this command to modify the trace and log configuration for a specific module.

Command Syntax

```
modify trace cfg module module-name|all [flow trace-flow] [level trace-level] [syslog|net|stdout] [dest ip-address] [port port-number]
```

Parameters

Name	Description
<i>module module-name all</i>	This specifies the module whose trace/log configuration is to be modified. Type: Mandatory Valid values: GCOS, ALPS, MEA5, OAM, CIN, GAG, CDB, LED, CLI, SAG, HAG, PPE, ATM, DCL, EOA, TBG, PPP, EMAC, DSL, USB, SPI, NVM, SPAN, SSI
<i>flow trace-flow</i>	This indicates a Hexadecimal bitmask which sets the filter for trace flow Type: Optional Valid values: 0x0 to 0xffffffff
<i>level trace-level</i>	This indicates a Hexadecimal bitmask which sets the filter for trace level Type: Optional Valid values: 0x0 to 0xffffffff
<i>syslog net stdout</i>	This specifies the type of logging to be done. In case <i>net</i> or <i>syslog</i> is specified then <i>dest</i> and <i>port</i> must be specified. Type: Optional
<i>dest ip-address</i>	This specifies the IP address for host for logging for trace type <i>syslog</i> and <i>net</i> . It is invalid in case of trace type <i>stdout</i> Type: Mandatory when type is modified to <i>net</i> or <i>syslog</i> ; else it is invalid Valid values: Any valid class A/B/C IP address
<i>port port-number</i>	Port number on which host is listening for trace info to be logged in case of trace type <i>syslog</i> and <i>net</i> . It is invalid in case of trace type <i>stdout</i> Type: Mandatory when type is modified to <i>net</i> or <i>syslog</i> ; else it is invalid Valid values: 0-4294967295

Mode

Super-User.

Example

```
$ modify trace cfg module GAG flow 0x1 level 0x1
```

Output

Verbose Mode On

Module	Flow	Level	Type	Destn	Port
GAG	0x0	0x0	Stdout	0.0.0.0	0

Set Done

Module	Flow	Level	Type	Destn	Port
GAG	0x1	0x1	Stdout	0.0.0.0	0

Verbose Mode Off

Set Done

Output field description

Field	Description
Module	This specifies the module for trace/log config whose information is being displayed: It can be: GCOS, ALPS, MEA5, OAM, CIN, GAG, CDB, LED, CLI, SAG, HAG, PPE, ATM, DCL, EOA, TBG, PPP, EMAC, DSL, USB, SPI, NVM, SPAN, SSI
Flow	This indicates a Hexadecimal bitmask which sets the filter for trace flow.
Level	This indicates a Hexadecimal bitmask which sets the filter for trace level.
Type	This specifies the type of logging to be done. It may be: Syslog, Net, Stdout
Destn	This specifies the IP address for host for logging for trace type syslog and net. It is invalid incase of trace type stdout
Port	Port number on which host is listening for trace info to be logged incase of trace type syslog and net. It is invalid incase of trace type stdout

Caution

None.

References

- ❖ `get trace cfg` command
- ❖ `get trace stats` command

3.263 modify trapprints

Description

Use this command to enable or disable trap prints on CLI.

Command Syntax

`modify trapprints enable|disable`

Parameters

Name	Description
<code>enable disable</code>	Desired state of Trap prints. Type : Mandatory Valid values: <code>enable, disable</code>

Mode

Super-User.

Example

`$ modify trapprints enable`

Output

Trap Prints Enabled

Output field description

None

Caution

None.

References

- ❖ `get trapprints` command

3.264 modify usagectrl

Description

Use this command to modify Usage Control Configuration.

Command Syntax

```
modify usagectrl [ maxusers <decvalue> ] [enable|disable]
```

Parameters

Name	Description
<i>maxusers <decvalue></i>	This field specifies the maximum number of data users, who can have simultaneous access to the WAN side. Type: Optional Valid values: 1 - 8
<i>enable disable</i>	This specifies the usage control status. Type: Optional Valid Value: <i>enable, disable</i>

Mode

Super-User

Example

```
$ modify usagectrl enable 0
```

Output

Verbose Mode On

```
Max Data Users      Status
-----
5                               disable
```

Set Done

```
Max Data Users      Status
-----
5                               enable
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>Max Data Users</i>	This field specifies the maximum number of data users, who can have simultaneous access to the WAN side.
<i>Status</i>	This field specifies the status of usage control.

Caution

None.

References

- ❖ `get usagectl` command
- ❖ `get datauserslist` command
- ❖ `reset datauserslist` command.

3.265 modify usb intf

Description

Use this command to modify the properties of an USB interface.

Command Syntax

`modify usb intf ifname interface-name [ip ip-address]
[mask net-mask]`

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the name assigned to this interface. Type: Mandatory Valid values: <i>usb-0</i>
<i>ip ip-address</i>	The IP address to be assigned to interface. Type: Optional Valid values: Any valid class A/B/C IP address Default value: <i>0.0.0.0</i>
<i>mask net-mask</i>	This parameter specifies the subnet mask to be applied to the IP address. Type: Optional Valid values: <i>128.0.0.0 – 255.255.255.254</i> Default value: <i>0.0.0.0</i>

Mode

Super-User

Example

```
$ modify usb intf ifname usb-0 ip 172.25.8.100
```

Output

Verbose Mode On

```
-----
IfName  If SecType  Ip Address      Mask              Nat Dir      Oper
-----
usb-0   Public      192.168.1.1    255.255.255.0    Inside       Down
```

Set Done

```
-----
IfName  If SecType  Ip Address      Mask              Nat Dir      Oper
-----
usb-0   Public      172.25.8.100   255.255.255.0    Inside       Down
```

Verbose Mode Off

Set Done

Output field description

Field	Description
<i>IfName</i>	The name of the interface, which has been created.
<i>Ip Address</i>	IP address assigned to the USB interface.
<i>Mask</i>	Network mask to be applied to the IP Address.
<i>Nat Dir</i>	This specifies the NAT direction, which may be: <i>inside</i> , <i>outside</i> or <i>none</i> .
<i>Oper</i>	The actual/current state of the interface. It can be either <i>Up</i> or <i>Down</i>
<i>If Sec Type</i>	Interface security type.

Caution

None.

References

- ❖ `create usb intf` command
- ❖ `delete usb intf` command
- ❖ `get usb intf intf` command
- ❖ `get usb stats` command.

3.266 modify zipb cfg enable**Description**

Use this command to either enable or disable the ZIPB mode of the modem.

Command Syntax

modify zipb cfg enable

Parameters

None.

Mode

Super-User

Example

modify zipb cfg enable

Output field description

None.

Caution

None.

References

None.

3.267 passwd

Description

Use this command to change the password associated with a user login. An ordinary user may change the password for another user if the old password is known to him. However, the root does not need to know a user's existing password before changing it. The passwords are not echoed onto the screen.

Command Syntax

passwd [user-id]

Parameters

Name	Description
user-id	The id of the user whose password is to be changed. If not spec-

	ified then the current user is assumed. Type: Mandatory, if user is logged in through serial port and user authentication is disabled through serial port. Otherwise, Optional. Valid values: String of up to 128 characters (All printable characters except ';')
--	--

Mode

Super-User, Intermediate, User

Example

See Sessions below

Normal Usage

```
$passwd  
Old Password:  
New Password:  
Confirm New Password:  
Set Done.
```

Super User (for ordinary user)

```
$passwd User1  
New Password:  
Confirm New Password:  
Set Done.
```

Output field description

None.

Caution

None.

References

❖ *get user* command

3.268 ping

Description

This command is used to send one or more ICMP messages to another host for a reply.

Command Syntax

```
ping {ip-address|dname domain-name} [-t|-n number] [-i time-to-live] [-w seconds] [-s size]
```

Parameters

Name	Description
<i>ip-address</i> <i>dname domain-name</i>	This specifies the Destination address to be pinged. Type: Mandatory Valid values: Any Valid IP Address (0.0.0.0 – 255.255.255.255) or Domain Name (String of Max 63 characters ('a'-'z', 'A'-'Z', '0'-'9', '-', '_' and '.'))
<i>-t</i>	This specifies to ping the host continuously until the user interrupts. Type: Optional
<i>-n number</i>	This specifies the number of pings to send to host. Type: Optional Valid values: 1-65535 Default value: 4
<i>-w seconds</i>	This specifies the time interval between successive ping requests Type: Optional Valid values: 0-65535 Default value: 2
<i>-i time-to-live</i>	This specifies the time to live to be filled in the ping request Type: Optional Valid values: 0 – 255 Default value: 64
<i>-s size</i>	This specifies the size of payload for ping. Type: Optional Valid values: 4-1472 Default value: 64

Mode

Super-User, user

Example

```
$ ping 192.168.1.13
```

Output

```
$ ping 192.168.1.13
64 bytes of data from 192.168.1.13, seq=0 ttl=64 rtt=0.000 msec
64 bytes of data from 192.168.1.13, seq=1 ttl=64 rtt=0.000 msec
64 bytes of data from 192.168.1.13, seq=2 ttl=64 rtt=0.000 msec
64 bytes of data from 192.168.1.13, seq=3 ttl=64 rtt=0.000 msec

----- Ping Statistics -----
4 packets transmitted, 4 packets received, 0 percent packet loss
```

Output field description

Field	Description
<i>64 bytes of...</i>	This denotes the number of bytes in the ping packet and the source IP Address.
<i>Seq</i>	This denotes the ping attempt counter value.
<i>Ttl</i>	This is the Time to live for the packet.
<i>Rtt</i>	This denotes the Round trip Time for the packet. A value less than <i>10ms</i> is shown as <i>0</i>

Caution

If there is only one user login with root privileges then that entry cannot be deleted.

References

❖ *traceroute* command.

3.269 prompt

Description

Use this command to set the new CLI prompt.

Command Syntax

prompt new-prompt

Parameters

Name	Description
<i>new-prompt</i>	The new prompt string. Type: Mandatory Valid values: String of upto 19 characters (All characters except <i>;</i> , <i>'</i> , <i>?</i>)

Mode

User, Super-User.

Example

```
$ prompt $$$
```

Output

```
Set Done  
$$$
```

Output field description

None.

Caution

The modified prompt is not saved across a reboot.

References

None.

3.270 rdf

Description

Use this command to read from flash.

Command Syntax

```
rdf [dev dev-name] [addr addr] [len len] [format  
<hex|dec>]
```

Parameters

Name	Description
<i>dev dev-name</i>	This indicates the flash device on which the read operation is to be performed Type: Optional Valid values: prim, sec, log, Manu, def, dhcp.Default Value: primary
<i>addr addr</i>	addr is location from where the contents are to be read from memory. It should be specified in hexadecimal format. Type: Mandatory Valid Values: valid memory address
<i>len len</i>	Len is the number of bytes that are to be read from the specified location. Type: Optional. Valid values : 1- Default Value: 32
<i>format <hex dec></i>	Format is hex or dec, i.e. whether the user wants to view the contents in hexadecimal or decimal Type: Optional. Valid values: hex or decDefault Value: hex

Mode

User, Super-User.

Example

```
$ rdf dev primary offset 6000 length 24 format dec
```

Output

Verbose Mode On:

Device Name: Prim

Address Data (Dec)

```
6000        10 16 12 52 17 33 52 20 52 255 12 16 12 52 17 34
6018        5  2  52 255 15 16 13 52
```

Verbose Mode Off:

Device Name: Prim

Address Data (Dec)

```
6000        10 16 12 52 17 33 52 20 52 255 12 16 12 52 17 34
6018        5  2  52 255 15 16 13 52
```

Output field description

Field	Description
<i>Device Name</i>	This indicates the flash device (prim) from which the contents are read.
<i>Address</i>	This is the address of the memory location whose contents have been read.
<i>Data (Dec)</i>	These are the values that are read from memory. And (Dec) signifies that the values are displayed in decimal format.

Caution

None.

References

- ❖ *rdm* command
- ❖ *memset* command

3.271 rdm

Description

Use this command to read from memory.

Command Syntax

rdm [VREG|NREG|NONE] addr addr [len len] [format <hex|dec>]

Parameters

Name	Description
<i>[VREG NREG NONE]</i>	This indicates that addr is from VREG_BASE/NREG_BASE/NONE. If NONE is specified, the base address is taken as 0. Type: Optional Valid values : VREG, NREG or NONE Default Value: NONE.
<i>addr addr</i>	addr is location from where the contents are to be read from memory. It should be specified in hexadecimal format. Type: Mandatory Valid Values: valid memory address
<i>len len</i>	Len is the number of bytes that are to be read from the specified offset. Type: Optional. Valid values : 1-65535 Default Value: 32
<i>format <hex dec></i>	Format is hex or dec, i.e. whether the user wants to view the contents in hexadecimal or decimal Type: Optional. Valid values: hex or dec Default Value: hex

Mode

User, Super-User.

Example

A. ***\$ rdm VREG addr 8 len 24 format hex***

Output

Verbose Mode On:

```
Address      Data (Hex)
80008      0A 10 0C 34 11 21 05 02 34 FF 0C 10 0C 34 11 22
80018      05 02 34 FF 0E 10 0D 34
```

Verbose Mode Off:

```
Address      Data (Hex)
80008      0A 10 0C 34 11 21 05 02 34 FF 0C 10 0C 34 11 22
80018      05 02 34 FF 0E 10 0D 34
```

Example

B. ***\$ rdm addr 9000 len 24 format dec***

Verbose Mode On:

```
Address      Data (Dec)
```

```
9000      10 11 20 34 11 21 05 02 34 54 12 10 20 34 11 22
9018      05 02 34 55 14 10 20 34
```

Verbose Mode Off:

Address Data (Dec)

```
9000      10 11 20 34 11 21 05 02 34 54 12 10 20 34 11 22
9018      05 02 34 55 14 10 20 34
```

Output field description

Field	Description
<i>Address</i>	This is the address of the memory location from where the contents have been read.
<i>Data (Hex)</i>	These are the values that are read from memory. And (Hex) signifies that the values are displayed in hexadecimal format.

Caution

None.

References

- ❖ *rdf* command
- ❖ *memset* command.

3.272 reboot

Description

Use this command to reboot the modem and to set the boot configuration (the source from which to boot up).

Command Syntax

reboot [default|backup|last|minimum|clean]

Parameters

Name	Description
<i>default backup last minimum clean</i>	This specifies the boot configuration – the source from which to boot up. The boot configuration is set to <i>last</i> automatically whenever a <i>commit</i> command is given.

	<p>The boot configuration being an optional parameter, if it is not specified, it retains the previous value. So giving <i>reboot</i> after a <i>commit</i> will result in a reboot from the committed configuration.</p> <p><i>Default</i>: Use Default factory configuration while booting up.</p> <p><i>Backup</i>: Use the Backup configuration to boot the modem.</p> <p><i>Last</i> : Use last committed configuration to boot the modem.</p> <p><i>Minimum</i>: Use a configuration in which:</p> <p><i>Clean</i>: The modem comes up with nothing configured.</p> <p>Type: Optional</p> <p>Default value: If a reboot is being given for the first time, then the default value is <i>default</i>. Otherwise, the default value is the same as what was given the last time.</p>
--	---

Mode

Super-User, User.

Example

\$ reboot

Output

None.

Output field description

None.

Caution

None.

References

❖ *commit* command.

3.273 remove

Description

Use this command to remove a configuration or binary file stored on the modem.

Command Syntax

remove fname file-name

Parameters

Name	Description
file-name	This specifies the file name which needs to be removed. Type: mandatory Valid values: string of upto 128 characters ('A'-'Z', 'a'-'z', '0'-'9', '-', '_')

Mode

Super-User.

Example

\$ remove fname myconfig.cfg

Output

Verbose Mode On

File removed

Verbose Mode Off

File removed

Output field description

None.

Caution

None.

References

- ❖ *get autoupdate* command
- ❖ *modify autoupdate* command
- ❖ *apply* command.
- ❖ *list* command.
- ❖ *download* command.

3.274 reset atm aal5 stats

Description

Use this command to reset AAL5 VC statistics for the specified interface.

Command Syntax

reset atm aal5 stats ifname interface-name

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the interface for which information is desired. In case the field is not specified, then the information for all valid aal5 interfaces should be displayed. Type: Mandatory Valid values: aal5-0 - *

Mode

Super-User.

Example

```
$ reset atm aal5 stats ifname aal5-0
```

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None.

Caution

None.

References

❖ *oam lpbk* command

- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *atm port* and *statistics* related commands

3.275 reset atm stats

Description

Use this command to reset ATM Port statistics for the specified interface.

Command Syntax

reset atm stats ifname interface-name

Parameters

Name	Description
<i>ifname interface-name</i>	This parameter specifies the ATM port for which statistics should be reset. Type: Mandatory Valid values: <i>atm-0</i>

Mode

Super-User.

Example

```
$ reset atm stats ifname atm-0
```

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None.

Caution

None.

References

- ❖ *oam lpbk* command
- ❖ *get atm stats* command
- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands
- ❖ *atm port* commands

3.276 reset atm vc stats

Description

Use this command to reset statistical information about a specific atm virtual circuit.

Command Syntax

reset atm vc stats ifname interface-name

Parameters

Name	Description
<i>ifname interface-name</i>	This specifies the Virtual Circuit whose statistics are to be reset. Type: Optional Valid values: <i>aal5-0 - *</i>

Mode

Super-User

Example

```
$ reset atm vc stats ifname aal5-0
```

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None.

Caution

The specified atm vc should exist. That is, *create atm vc intf* command should have been run for this interface.

References

- ❖ *oam lpbk* command
- ❖ *atm statistics* related commands
- ❖ *atm trfdesc* related commands
- ❖ *atm vc* related commands.
- ❖ *atm port* commands.

3.277 reset bridge port stats

Description

Use this command to reset bridge port statistics.

Command Syntax

reset bridge port stats ifname interface-name

Parameters

Field	Description
<i>ifname interface-name</i>	This specifies the bridge interface whose statistics are to be reset. Type: Optional Valid values: <i>eoan-0 - *, eth-0, usb-0</i>

Mode

Super-User

Example

```
$ reset bridge port stats ifname eth-0
```

Output

```
Set Done
```

Output field description

None.

Caution

None.

References

- ❖ *bridge mode* related commands
- ❖ *bridge port intf* related commands
- ❖ *bridge static* related commands
- ❖ *bridge forwarding* related commands.

3.278 reset bridge tbg stats

Description

Use this command to reset statistics related to transparent bridging.

Command Syntax

reset bridge tbg stats

Parameters

None.

Mode

Super-User

Example

\$ reset bridge tbg stats

Output

Set Done

Output field description

None.

Caution

None.

References

- ❖ *bridge tbg info* related commands

- ❖ *bridge* related commands
- ❖ *bridge port stats* related commands
- ❖ *bridge static* related commands
- ❖ *bridge forwarding* related commands

3.279 `reset datauserslist`

Description

Use this command to delete all data users.

Command Syntax

`reset datauserslist`

Parameters

None.

Mode

Super-User

Example

```
$ reset datauserslist
```

Output

Verbose mode on/off

```
Set Done
```

Output field description

None.

Caution

None.

References

- ❖ `get datauserslist` command
- ❖ `get usagectrl` command
- ❖ `modify usagectrl` command.

3.280 reset dhcp relay stats

Description

This command resets the global DHCP Relay statistics.

Command Syntax

reset dhcp relay stats

Parameters

None.

Mode

Super-User, User

Example

```
$ reset dhcp relay stats
```

Output

Verbose Mode On

```
Set Done
```

Verbose Mode Off

```
Set Done
```

Output field description

None.

Caution

None.

References

- ❖ *get dhcp relay stats* command
- ❖ *dhcp relay cfg* related commands
- ❖ *dhcp relay intf* related commands

3.281 reset dhcp server stats

Description

Use this command to reset the global DHCP Server statistics.

Command Syntax

reset dhcp server stats

Parameters

None.

Mode

Super-User

Example

\$ reset dhcp server stats

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None.

Caution

None.

References

- ❖ *get dhcp server stats* command
- ❖ *dhcp server cfg* related commands
- ❖ *dhcp server exclude* related commands
- ❖ *dhcp server address* related commands
- ❖ *dhcp server pool* related commands.

3.282 reset dns relay stats

Description

Use this command to reset DNS relay statistics

Command Syntax

reset dns relay stats

Mode

Super User

Output

Verbose mode on

Set Done

Verbose mode off

Set Done

Caution:

None

References

3.283 reset dsl stats cntrs

Description

Use this command to reset DSL statistics error counters.

Command Syntax

reset dsl stats cntrs

Parameters

None.

Mode

Super-User.

Example

```
$ reset dsl stats cntrs
```

Output

```
Set Done Verbose Mode On
Set Done Verbose Mode Off
```

Output field description

None.

Caution

None.

References

❖ [get dsl stats cntrs](#) command

3.284 reset dsl stats flrs

Description

Use this command to reset dsl statistics failures.

Command Syntax

```
reset dsl stats flrs
```

Parameters

None.

Mode

Super-User.

Example

```
$ reset dsl stats cntrs
```

Output

```
Set Done Verbose Mode On
```

Set Done
Verbose Mode Off

Output field description

None.

Caution

None.

References

❖ `get dsl stats flrs` command

3.285 reset fw1 stats

Description

Use this command to reset firewall statistics.

Command Syntax

`reset fw1 stats`

Parameters

None.

Mode

Super-User.

Example

`$ reset fw1 stats`

Output

Set Done
Verbose Mode On/Off

Output field description

None.

Caution

None.

References

❖ `get fw1 stats` command

3.286 reset ipf session

Description

Use this command to reset all IP filter sessions.

Command Syntax

`reset ipf session`

Parameters

None

Mode

Super-User

Example

`$ reset ipf session`

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None

Caution

This command is valid only when IP filter is enabled.

References

❖ `get ipf session` command

❖ `delete ipf session` command

3.287 reset ipf rule stats

Description

Use this command to reset IP filter stats for a specific rule ID.

Command Syntax

```
reset ipf rule stats ruleid rule-id
```

Parameters

Name	Description
<i>ruleid rule-id</i>	The index given by the caller to identify the rule entry. Type: Mandatory Valid values: 1-4294967295

Mode

Super-User.

Example

```
$ reset ipf rule stats ruleid 1
```

Output

Verbose Mode On

Set done

Verbose Mode Off

Set done

Output field description

None.

Caution

None.

References

- ❖ *get ipf rule stats* command
- ❖ *get ipf stats* command
- ❖ *reset ipf stats* command

3.288 reset ipf stats

Description

Use this command to reset global statistics of the IP filter.

Command Syntax

reset ipf stats

Parameters

None.

Mode

Super-User.

Example

\$ reset ipf stats

Output

Verbose Mode On

Set done

Verbose Mode Off

Set done

Output field description

None.

Caution

None.

References

- ❖ *get ipf stats* command
- ❖ *get ipf rule stats* command
- ❖ *reset ipf rule stats* command

3.289 reset l2tp session stats

Description

Use this command to reset l2tp session statistics for a L2TP session for particular PPP interface.

Command Syntax

reset l2tp session stats [pppifname interface-name]

Parameters

Name	Description
<i>pppifname</i> <i>interface-name</i>	Identifies the PPP interface name from which PPP packets are being tunneled Type: Optional Valid values: ppp-0, ppp-*

Mode

Super-User

Output

Verbose Mode On/Off

Set Done

Output field description

None.

Caution

None.

References

❖ *get l2tp session stats* command

s

3.290 reset l2tp tunnel stats

Description

Use this command to reset l2tp tunnel statistics for a particular tunnel interface.

Command Syntax

rreset l2tp tunnel stats ifname interface-name

Parameters

Name	Description
<i>ifname interface-name</i>	Identifies the interface name for L2TP layer. Type: Optional Valid values: l2t-0-l2t-*

Mode

Super-User

Example

reset l2tp tunnel stats ifname l2t-0

Output

Verbose Mode On/Off

Set Done

Output field description

None.

Caution

None.

References

❖ *get l2tp tunnel stats* command

3.291 reset nat rule stats

Description

Use this command to reset statistics for the specified NAT rule or for all rules.

Command Syntax

reset nat rule stats [ruleid rule-id]

Parameters

Name	Description
<i>Ruleid rule-id</i>	This identifies the NAT rule, statistics pertaining to which are to be reset. If no rule ID is specified then Statistics for all the rules are reset. Type: Optional Valid values: 1-4294967295

Mode

Super-User

Example

```
$ reset nat rule stats ruleid 1
```

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None.

Caution

None.

References

- ❖ *get nat rule stats* command
- ❖ *nat rule status* related commands
- ❖ *nat rule entry* related commands

3.292 reset nat stats

Description

Use this command to reset global NAT statistics.

Command Syntax

reset nat stats

Parameters

None.

Mode

Super-User

Example

\$ reset nat stats

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None.

Caution

None.

References

- ❖ *get nat stats* command
- ❖ *nat status info* commands.

3.293 reset pfraw rule stats

Description

Use this command to reset raw filter stats for a specific rule id.

Command Syntax

reset pfraw rule stats ruleid rule-id

Parameters

Name	Description
<i>Ruleid rule-id</i>	This identifies the rule index for which the statistics should be reset. Type: Mandatory Valid values: 0 - 65535 Only existing rule ids accepted as input.

Mode

Super-User.

Example

```
$ reset pfraw rule stats ruleid 1
```

Output

Verbose Mode On

Set done

Verbose Mode Off

Set done

Output field description

None.

Caution

None.

References

pfraw related commands.

3.294 reset pfraw stats

Description

Use this command to reset global statistics of the raw filter.

Command Syntax

```
reset pfraw stats
```

Parameters

None.

Mode

Super-User.

Example

\$ reset pfraw stats

Output

Verbose Mode On

Set Done

Verbose Mode Off

Set Done

Output field description

None.

Caution

None.

References

pfraw related commands.

3.295 reset rip stats

Description

Use this command to reset RIP stats.

Command Syntax

reset rip stats

Parameters

None.

Mode

Super-User and User

Example

reset rip stats

Output

Verbose Mode On

Set done

Verbose Mode Off

Set done

Output field description

None.

Caution

None.

References

❖ *get rip stats* commands.

3.296 *reset sntp stats*

Description

Use this command to reset SNTP statistics.

Command Syntax

reset sntp stats

Parameters

None.

Mode

User, Super-User

Example

\$ reset sntp stats

Output

Set Done

Output field description

None.

Caution

None.

References

3.297 reset stp stats

Description

Use this command to reset stp global statistics.

Command Syntax

reset stp stats

Parameters

None.

Mode

Super-User

Example

\$ reset stp stats

Output

Set Done

Output field description

None.

Caution

None.

References

- ❖ *modify stp info* command
- ❖ *stp port* related commands.

3.298 reset stp port stats

Description

Use this command to reset the stp port stats for a specific interface.

Command Syntax

reset stp port stats ifname interface-name

Parameters

Name	Description
<i>ifname interface-name</i>	The port for which this entry contains Spanning Tree Protocol management information. If no interface name is specified, then information for all entries is displayed. Type: Optional Valid values: <i>eth-0, aal5-0 - *</i>

Mode

Super-User

Example

\$ reset stp port stats ifname eth-0

Output

Set Done

Output field description

None.

Caution

None.

References

- ❖ *modify stp port* command
- ❖ *stp global* related commands
- ❖ *bridge ports* related commands

3.299 reset surf profile reg

Description

Use this command to reset the surfing profile registration.

Command Syntax

reset surf profile reg

Mode

Super-User

Example

\$ reset surf profile reg

Output

Verbose mode on/off
Set Done

Output field description

None.

Caution

None.

References

- ❖ *get surf profile cfg* command.

3.300 reset traps

Description

This command deletes all traps.

Command Syntax

reset traps

Parameters

None.

Mode

Super-User.

Example

\$ reset traps

Output

Set Done

Output field description

None.

Caution

None.

References

❖ *get traps* command

3.301 size

Description

Use this command to configure the system sizing information.

Command Syntax

size [maxvc max-num-of-vcs] [max1483vc max-1483-vc] [maxppe max-ppe-session] [maxmac max-num-of-mac-addresses] [maxpfrawrule max-num-pfraw-rules] [maxpfrawsubrule max-pfraw-subrules] [maxipfrule max-num-ipf-rules] [maxl2tpTunnel max-l2t-tunnel] [maxl2tpSessPerTunnel max-l2t-session-per-tunnel] [maxl2tppeerrws max-l2t-peer-recv-window]

Parameters

Name	Description
<i>Maxvc max-num-of-vcs</i>	This specifies the maximum number of VCCs supported over all ATM ports. Type: Optional Valid values: 1- * Default value: 2
<i>max1483vc max-1483-vc</i>	This specifies the maximum AAL5 connections used for MEA5. Type: Optional Valid values: 1- * Default value: 1
<i>maxppe max-ppe-session</i>	This specifies the maximum number of PPPoE sessions supported in the system Type: Optional Valid values: 1- * Default value: 1
<i>maxmac max-num-of-mac-addresses</i>	This specifies the maximum number of MAC address that can be learnt by bridging module Type: Optional Valid values: 1 - * Default value: 256
<i>maxpfrawrule max-num-pfraw- rules</i>	Maximum total number of rules that can be stored in global rule table Type: Optional Valid values: 1 - * Default value: 8
<i>maxpfrawsubrule max-pfraw- subrules</i>	Maximum total number of sub-rules that can be stored in sub-rule table Type: Optional Valid values: 1 - * Default value: 8
<i>maxipfrule max-num-ipf- rules</i>	Maximum total number of rules that can be stored in global ipfilter rule table. Type: Optional Valid values: 1 - * Default Value: 50
<i>maxl2tpTunnel mx-12t-tunnel</i>	Maximum number of L2TP tunnels supported in the system.
<i>maxl2tpSessPerTunnel max-12t-session-per-tunnel</i>	Maximum number of PPP sessions supported per L2TP tunnel.
<i>maxl2tppeerrows max-12t- peer-recv-window</i>	Maximum size of peer receive window size that can be handled.

Mode

Super-User

Example

```
$ size maxvc 4 max1483vc 2 maxppe 2 maxmac 6
```

Output

Verbose Mode On:

```
Entry Created
PPP Inactivity Timeout      : 0          Max PPE Sessions      : 2
Ignore WAN to LAN traffic  : False      Max TBG MAC address  : 6
Max VCs                    : 4          Max 1483 VCs         : 2
Max PFRaw Rules           : 8          Max PFRaw Subrules   : 8
Max IPF Rules             : 8          Max l2tp Tunnel      : 2
Max l2tp Sess Per Tunnel  : 2          Max L2TP Peer RWS   : 2
```

Verbose Mode Off:

Entry Created

Output field description

FIELD	DESCRIPTION
<i>PPP Inactivity Timeout</i>	This specifies the Inactivity timeout for PPP.
<i>Ignore WAN to LAN traffic</i>	Flag indicating whether to ignore WAN to LAN traffic for PPP Session timeout.
<i>Max PPE Sessions</i>	This specifies the maximum number of PPPoE sessions supported in the system.
<i>Max TBG MAC address</i>	This specifies the maximum number of MAC addresses that can be learned by the bridging module.
<i>Max VCs</i>	This specifies the maximum number of VCCs supported over all ATM ports.
<i>Max 1483 VCs</i>	This specifies the maximum AAL5 connections used for MEA5.
<i>Max PFRaw Rules</i>	Maximum total number of rules that can be stored in the global rule table.
<i>Max PFRaw Subrules</i>	Maximum total number of sub-rules that can be stored in the sub-rule table.
<i>Max IPF Rules</i>	Maximum total number of rules that can be stored in the global ipfilter rule table.
<i>Max l2tp Tunnel</i>	Maximum number of L2TP tunnels supported in the system.
<i>Max l2tp Sess Per Tunnel</i>	Maximum number of PPP sessions supported per L2TP tunnel.
<i>Max L2TP Peer RWS</i>	Maximum size of peer receive window size that can be handled.

Caution

None.

References

`get sizeinfo` command

3.302 traceroute

Description

This command is used to trace the route to the specified destination.

Command Syntax

```
traceroute {ip-address|dname domain-name} {ping|udp} [-m num-of-hops] [-w wait-time] [-p udp-port-number] [-q num-of-probes]
```

Parameters

Name	Description
<i>ip-address</i> <i>dname domain-name</i>	This specifies the Destination address to be pinged. Type: Mandatory Valid values: Any Valid IP Address (0.0.0.0 – 255.255.255.255) or Domain Name (String of Max 63 characters ('a'-'z', 'A'-'Z', '0'-'9', '-', '_' and '.'))
<i>ping</i> <i>udp</i>	Traceroute probe message type Type: Mandatory
<i>-m num-of-hops</i>	Maximum number of hops to search for ip-address Type: Optional Valid values: 0-255 Default value: 30
<i>-w wait-time</i>	This specifies the timeout in seconds Type: Optional Valid values: 0-65535 Default value: 5
<i>-p udp-port-number</i>	Destination UDP port to be used, only when Probe is Udp Type: Optional. Valid values: 0-65535 Default value: 32768
<i>-q num-of-probes</i>	Number of probes to be sent for each TTL value Type: Optional Valid values: 0-255 Default value: 3

Mode

Super-User, User

Example

```
$ traceroute 192.168.1.13 ping
```

Output

```
Tracing route to [192.168.1.13]
Over a maximum of 30 hops
1    0.000000 ms  0.000000 ms  0.000000 ms  192.168.1.13
Trace complete.
```

Output field description

Field	Description
-------	-------------

1	This denotes the hop counter value.
2-4	These are the Round trip timings of the 3 probe packets sent. A * denotes that this probe was missed.
5	This is the ip address of the intermediate/destination node.

Caution

None.

References

❖ *ping* command.

3.303 *trigger ilmi*

Description

Use this command to give a start trigger to the ILMI based auto configuration procedure. On receiving this trigger ILMI would initiate its procedures if ILMI is enabled.

Command Syntax

trigger ilmi

Parameters

None.

Mode

Super-User.

Example

\$ trigger ilmi

Output

None.

Caution

The *trigger ilmi* command can be given after creating an ILMI interface in the enabled state using the *create ilmi intf* command, or after modifying the state to enabled using the *modify ilmi intf* command. Alternately, the triggering can be achieved automatically if the modem is rebooted after enabling the ILMI interface.

In case an ILM interface is being created in the default configuration, the *create ilmi intf* command in the default configuration *must* be followed by a *trigger ilmi* command.

References

❖ *create ilmi intf* command

3.304 wrm

Description

This command writes data in memory.

Command Syntax

```
wrm [VREG|NREG|NONE] addr addr data data
```

Parameters

Name	Description
<i>[VREG NREG NONE]</i>	This indicates that offset is from VREG_BASE/ NREG_BASE. If NONE is specified, the base address is taken as 0. Type: Optional Valid values: VREG, NREG or NONE Default Value: NONE.
<i>addr addr</i>	addr is from where the data is to be written. Type: Mandatory
<i>data data</i>	Data is value that is to be written at the specified memory location. This should be specified in hexa- decimal format. Type: Mandatory. Valid values: 1,2 or 4 bytes.

Mode

Super-User

Example

```
$ wrm NREG addr 9000 data 0xab20
```

Output

None

Output field description

None

Caution

None.

References

- ❖ *rdf* command.
- ❖ *rdm* command.
- ❖ *memset* command.

4 CLI – Quick Reference Sheet

4.1 ALG Commands

COMMANDS	PARAMETERS
<i>create alg port</i>	<i>portno port-no [prot {any tcp udp icmp esp num <prot-number>}] algtype {ftp snmp cuseeme l2tp ra rcmd mircl h323_q931 h323_ras pptp rtsp timbuktu ldap sgicompcore msnmsggr ike esp}</i>
<i>delete alg port</i>	<i>portno port-no [prot {any tcp udp <prot- number>}]</i>
<i>get alg port</i>	<i>[portno port-no]</i>
<i>get alg type</i>	<i>none</i>

4.2 ATM Commands

COMMANDS	PARAMETERS
<i>create atm port</i>	<i>ifname interface-name [maxvc max-num-vccs] [fast interleaved] [oamsrc oam-src-id] [cbrpriority cbr-priority] [rtvbrpriority rtvbr- priority] [nrtvbrpriority nrtvbr-priority] [gfrpriority gfr-priority] [ubrpriority ubr- priority] [enable disable]</i>
<i>create atm trfdesc</i>	<i>trfindex traffic-descriptor-index [NOCLP_NOSCR CLP_NOTAG_MCR NOCLPSCR] [UBR GFR CBR RTVBR NRTVBR] [pcr peak-cell-rate] [mcr minimum-cell-rate] [scr sustained-cell- rate] [mbs maximum-burst-size]</i>
<i>create atm vc intf</i>	<i>ifname interface-name vpi vpi vci vci lowif virtual-atm-port- interface-name [enable disable] [trfindex traffic-descriptor- index] [aal5] [a5txsize aal5-cpcs-tx-sdu-size] [a5rxsize aal5- cpcs-rx-sdu-size] [vcmux llcmux none] [a5maxproto max-protocol- per-aal5] [vcweight vc-weight]</i>
<i>create atm svccfg</i>	<i>interface-name daddr dest-atm-address [pppoa eoa any] [nplan isdn atmes] [trfindex traffic-descriptor-index] [a5txsize aal5- cpcs- tx-sdu-size] [a5rxsize aal5-cpcs-rx-sdu-size] [vcmux llcmux none]</i>
<i>create ipoa intf</i>	<i>ifname interface-name ip ip-address mask net-mask [type 1577 non1577] [inside outside none] [ifsectype public private dmz] [gwy ip-address] [droute true false]</i>
<i>modify ipoa intf</i>	<i>ifname interface-name [ip ip-address] [mask net-mask] [gwy <ddd.ddd.ddd.ddd>] [droute true false]</i>

<code>delete atm port</code>	<code>ifname interface-name</code>
<code>delete atm trfdesc</code>	<code>trfindex traffic-descriptor-index</code>
<code>delete atm vc intf</code>	<code>ifname interface-name</code>
<code>delete atm svccfg</code>	<code>[ifname interface-name]</code>
<code>delete ipoa intf</code>	<code>ifname interface-name</code>
<code>get atm 1483 stats</code>	-
<code>get atm aal5 stats</code>	<code>[ifname interface-name]</code>
<code>get atm port</code>	<code>[ifname interface-name]</code>
<code>get atm stats</code>	<code>[ifname interface-name]</code>
<code>get atm svccfg</code>	<code>[ifname interface-name]</code>
<code>get atm trfdesc</code>	<code>trfindex [traffic-descriptor-index]</code>
<code>get atm vc intf</code>	<code>[ifname interface-name]</code>
<code>get atm vc stats</code>	<code>[ifname interface-name]</code>
<code>get ipoa intf</code>	<code>[ifname interface-name]</code>
<code>get oam lpbk vc</code>	<code>[ifname interface-name]</code>
<code>modify oam cc vc</code>	<code>[mode auto manual] [action act deact] [dir src sink both] [ethercheck enable disable]</code>
<code>get oam cc vc</code>	<code>[ifname interface-name]</code>
<code>modify atm port</code>	<code>ifname interface-name {enable disable}</code>
<code>modify atm vc intf</code>	<code>ifname interface-name {enable disable}</code>
<code>modify atm svccfg</code>	<code>ifname <interface-name> start stop</code>
<code>modify oam lpbk vc</code>	<code>ifname interface-name [lbid oam-loopback-location- id] [e2e seg]</code>
<code>reset atm aal5 stats</code>	<code>ifname interface-name</code>
<code>reset atm stats</code>	<code>ifname interface-name</code>
<code>Reset atm vc stats</code>	<code>ifname interface-name</code>

4.3 AutoDetect Commands

COMMANDS	PARAMETERS
<code>get autodetect cfg</code>	<code>none</code>
<code>modify autodetect cfg</code>	<code>[enable disable]</code>

4.4 Bridge Commands

COMMANDS	PARAMETERS
<code>create bridge port intf</code>	<code>ifname interface-name</code>
<code>create bridge static</code>	<code>macaddr mac-address inifname interface-name all [ifname interface-name all]+</code>
<code>delete bridge port intf</code>	<code>ifname interface-name</code>
<code>delete bridge static</code>	<code>macaddr mac-address inifname interface-name all</code>
<code>get bridge forwarding</code>	<code>[macaddr mac-address]</code>
<code>get bridge tbg info</code>	-
<code>get bridge mode</code>	-
<code>get bridge port intf</code>	<code>[ifname interface-name]</code>

<i>get bridge port stats</i>	<i>[ifname interface-name]</i>
<i>get bridge static</i>	<i>[macaddr mac-address] [inifname interface-name all]</i>
<i>get stp info</i>	-
<i>get stp port</i>	<i>[ifname interface-name]</i>
<i>modify bridge tbg info</i>	<i>aging aging-timeout</i>
<i>modify bridge mode</i>	<i>{enable disable}</i>
<i>modify bridge static</i>	<i>macaddr mac-address inifname interface-name all [ifname interface-name all]+</i>
<i>modify stp info</i>	<i>[priority priority-value] [maxage maximum-age] [htime hello-time] [fdelay forward-delay] [enable disable]</i>
<i>modify stp port</i>	<i>ifname interface-name [enable disable] [pcost path-cost] [priority priority-value]</i>

4.5 Bridge Router Autosense (BRAS) Commands

COMMANDS	PARAMETERS
<i>get bras cfg</i>	-
<i>modify bras cfg</i>	<i>[status enable disable] [selfppe restart]</i>

4.6 DHCP Client Commands

COMMANDS	PARAMETERS
<i>get dhcp client info</i>	<i>[ifname interface-name]</i>
<i>get dhcp client stats</i>	<i>[ifname interface-name]</i>

4.7 DNS Commands

COMMANDS	PARAMETERS
<i>modify DNS relay</i>	<i>[enable disable]</i>
<i>get DNS relay cfg</i>	-
<i>create dns servaddr</i>	<i><ip-address></i>
<i>delete dns servaddr</i>	<i><ip-address></i>
<i>get dns servaddr</i>	-
<i>get dns relay stats</i>	-
<i>reset dns relay stats</i>	-

4.8 DSL Commands

COMMANDS	PARAMETERS
<i>get dsl config</i>	-
<i>get dsl stats cntrs</i>	-

<code>get dsl stats curr</code>	-
<code>get dsl stats hist</code>	<code>[sintrvl start-interval-number] [nintrvl num-of-intervals]</code>
<code>modify dsl config</code>	<code>[t1413 glite gdm multi rsrv lgdm lg2] [annex annexa annexb annexc] [trellis enable disable] [expanded short] [framing0 framing1 framing2 framing3] [txatten tx-power-attenuation] [gain coding-gain] [maxbits max-bits-per-bin] [txstart tx-start-bin] [txend tx-end-bin] [txbinadj enable disable] [rxstart rx-start-bin] [rxend rx-end-bin] [rxbinadj enable disable] [fastretrain enable disable] [escfastretrain enable disable] [bitswap enable disable] [duallatency enable disable] [pmode enable disable] [pilotreq enable disable] [whip enable disable] [loop start stop] [acmodeitem fbm dbm] [acpilotreq enable disable] [actroffset offset0 42] [ecfdmmode ec fdm fdmhp fdmna]</code>
<code>reset dsl stats cntrs</code>	-
<code>get dsl stats flrs</code>	-
<code>reset dsl stats flrs</code>	-

4.9 DHCP Relay Commands

COMMANDS	PARAMETERS
<code>create dhcp relay intf</code>	<code>ifname interface-name</code>
<code>delete dhcp relay intf</code>	<code>ifname interface-name</code>
<code>get dhcp relay cfg</code>	-
<code>get dhcp relay intf</code>	<code>[ifname interface-name]</code>
<code>get dhcp relay stats</code>	-
<code>modify dhcp relay cfg</code>	<code>[enable disable] [ip serv-ip]</code>
<code>reset dhcp relay stats</code>	-

4.10 DHCP Server Commands

COMMANDS	PARAMETERS
<code>create dhcp server exclude</code>	<code>ip ip-address</code>
<code>create dhcp server host</code>	<code>ip ip-address mask ip-address hwaddr hw-address [dname domain-name] ({pop3 nntp web irc wins swins dns sdns gwy smtp} ip-address) * [dlease default-lease-time] [mlease max-lease-time]</code>
<code>create dhcp server pool</code>	<code>[pool-id] start-ip ip-address end-ip ip-address mask ip-address [dname domain-name] { {pop3 nntp web irc wins swins dns sdns gwy smtp}</code>

	<i>ip-address</i>)* [enabled disabled] [lthres low-threshold] [dlease default-lease-time] [mlease max-lease-time]
<i>delete dhcp server exclude</i>	<i>ip ip-address</i>
<i>delete dhcp server host</i>	<i>ip ip-address</i>
<i>delete dhcp server pool</i>	<i>pool-id</i>
<i>get dhcp server address</i>	[<i>ip ip-address</i>]
<i>get dhcp server cfg</i>	-
<i>get dhcp server exclude</i>	-
<i>get dhcp server host</i>	[<i>ip ip-address</i>]
<i>get dhcp server pool</i>	[<i>pool-id</i>]
<i>get dhcp server stats</i>	-
<i>modify dhcp server cfg</i>	{enable disable}
<i>modify dhcp server host</i>	<i>ip ip-address [dname domain-name] ({pop3 nntp web irc wins swins dns sdns gwy smtp} ip-address)*</i> [dlease default-lease-time] [mlease max-lease-time]
<i>modify dhcp server pool</i>	<i>pool-id [dname domain-name] {{pop3 nntp web irc wins swins dns sdns gwy smtp} ip-address}* [enabled disabled] [lthres low-threshold] [dlease default-lease-time] [mlease max-lease-time]</i>
<i>Reset dhcp server stats</i>	-

4.11 DNS Commands

COMMANDS	PARAMETERS
<i>get dns relay</i>	-
<i>modify dns relay</i>	[enable disable]

4.12 EoA Commands

COMMANDS	PARAMETERS
<i>create eoa intf</i>	<i>ifname interface-name [ip ip-address] [mask net-mask] lowif low-interface-name [inside outside none] [usedhcp true false] [ifsectype public private dmz] [gwy <ddd.ddd.ddd.ddd>]</i>
<i>get eoa intf</i>	[<i>ifname interface-name</i>]
<i>delete eoa intf</i>	[<i>ifname interface-name</i>]
<i>modify eoa intf</i>	<i>ifname interface-name [ip ip-address] [mask net-mask] [usedhcp true false] [gwy <ddd.ddd.ddd.ddd>] [droute true false]</i>

4.13 Ethernet Commands

COMMANDS	PARAMETERS
----------	------------

<i>create ethernet intf</i>	<i>ifname interface-name [ip ip-address] [mask net-mask] [phyif low-interface-name] [inside outside none] [usedhcp local remote false] [ifsectype public private dmz]</i>
<i>delete ethernet intf</i>	<i>Ifname interface-name</i>
<i>get ethernet intf</i>	<i>ifname interface-name</i>
<i>get ethernet stats</i>	<i>ifname interface-name</i>
<i>modify ethernet intf</i>	<i>ifname interface-name [ip ip-address] [mask net-mask] [usedhcp local remote false]</i>

4.14 Firewall Commands

COMMANDS	PARAMETERS
<i>get fwl blacklist</i>	-
<i>delete fwl blacklist</i>	-
<i>modify fwl global</i>	<i>[attackprotect enable disable] [dosprotect enable disable] [blastprotect enable disable] [blastperiod <decvalue>] [maxtcpconn <decvalue>] [maxicmpconn <decvalue>] [maxsinglehostconn <decvalue>] [logdest email trace both none] [emailid1 email-id] [emailid2 email-id] [emailid3 email-id]</i>
<i>get fwl global</i>	-
<i>get fwl stats</i>	-
<i>reset fwl stats</i>	-

4.15 ICMP Commands

COMMANDS	PARAMETERS
<i>get icmp stats</i>	-

4.16 IGMP Commands

COMMANDS	PARAMETERS
<i>create igmp intf</i>	<i>ifname <interface-name> [qinterval <query-interval>] [robust <robustness-variable>] [host router] [version igmpv1 igmpv2] [qmaxresponsetime < qmaxresponsetime >] [lmqinterval < lmqinterval >]</i>
<i>delete igmp intf</i>	<i>ifname interface-name</i>
<i>get igmp intf</i>	<i>[ifname <interface-name>]</i>
<i>get igmp groups</i>	<i>[grpaddr <ddd.ddd.ddd.ddd>] [ifname <interface-name>]</i>

4.17 ILMI Commands

COMMANDS	PARAMETERS
<i>create ilmi intf</i>	<i>intf ifname interface-name [enable disable] [vpi</i>

	<i>vpi-number</i>] [<i>vci vci-number</i>] [<i>timeout time-out</i>] [<i>keepalive keep-alive</i>] [<i>maxretry max-retry</i>]
<i>get ilmi intf</i>	<i>intf [ifname interface-name]</i>
<i>modify ilmi intf</i>	<i>intf ifname interface-name [enable disable] [vpi vpi-number] [vci vci-number] [timeout time-out] [keepalive keep-alive] [maxretry max-retry]</i>

4.18 IP Commands

COMMANDS	PARAMETERS
<i>create arp</i>	<i>ifname interface-name ip ip-address macaddr mac-address</i>
<i>create ip route</i>	<i>ip dest-ip-address gwyip gwy-ip-address mask net-mask</i>
<i>delete arp</i>	<i>ifname interface-name ip ip-address</i>
<i>delete ip route</i>	<i>ip dest-ip-address mask net-mask</i>
<i>get arp</i>	<i>[ifname interface-name] [ip ip-address]</i>
<i>get interface stats</i>	<i>[ifname interface-name]</i>
<i>get ip address</i>	<i>[ip ip-address]</i>
<i>get ip cfg</i>	-
<i>get ip route</i>	<i>[ip dest-ip-address] [mask net-mask]</i>
<i>get ip stats</i>	-
<i>get host info</i>	<i>[ip <ipaddress>]</i>
<i>modify ip cfg</i>	<i>[forwarding {enable disable}] [ttl time-to-live]</i>

4.19 IP Filtering Commands

COMMANDS	PARAMETERS
<i>create ipf rule entry</i>	<i>ruleid rule-id</i> <i>[ifname interface-name public private dmz all]</i> <i>[dir in out]</i> <i>[inifname interface-name public private dmz all]</i> <i>[act accept deny]</i> <i>[log enable disable]</i> <i>[enable disable]</i> <i>[srcaddr {lt lteq gt gteq eq neq <ddd.ddd.ddd.ddd> {{range erange} <ddd.ddd.ddd.ddd> <ddd.ddd.ddd.ddd>} any self}]</i> <i>[destaddr {lt lteq gt gteq eq neq <ddd.ddd.ddd.ddd> {{range erange} <ddd.ddd.ddd.ddd> <ddd.ddd.ddd.ddd>} any bcast self}]</i> <i>[srcport {lt lteq gt gteq eq neq {num <decvalue>} echo discard chargin ftp telnet smtp dns boot tftp http pop3 snmp >} {{range erange} <decvalue> <decvalue>} any}]</i> <i>[destport {lt lteq gt gteq eq neq {num <decvalue>} echo discard chargin ftp telnet smtp dns boot tftp http pop3 snmp >} {{range erange} <decvalue> <decvalue>} any}]</i>

	<i>[icmpcode {eq neq <decValue>} any] [icmptype {eq neq echoreq unreach redir echorep num <decValue>} any] [transprot {eq neq TCP UDP ICMP num <decValue>} any] [tcpflag syn nosyn any] [storestate enable disable] [seclevel {high medium low}+] [blistprotect enable disable] [logtag "log-tag"] [isfrag yes no ignore] [isipopt yes no ignore] [pktsize {lt lteq gt gteq eq neq <decvalue>} any] [todfrom <hh:mm:ss>] [todto <hh:mm:ss>] [todstatus enable disable]</i>
<i>delete ipf rule entry</i>	<i>ruleid rule-id</i>
<i>get ipf global</i>	-
<i>get ipf rule entry</i>	<i>[ruleid rule-id]</i>
<i>get ipf rule stats</i>	<i>[ruleid rule-id]</i>
<i>get ipf stats</i>	-
<i>modify ipf global</i>	<i>[enable disable] [accept deny]</i>
<i>modify ipf rule entry</i>	<i>ruleid rule-id [log enable disable] [enable disable]</i>
<i>reset ipf rule stats</i>	<i>ruleid rule-id</i>
<i>get ipf session</i>	-
<i>reset ipf session</i>	-
<i>reset ipf stats</i>	-

4.20 L2TP Commands

COMMANDS	PARAMETERS
<i>create l2tp tunnel config</i>	<i>ifname interface-name localip local-ip-address localhostname local-host-name remoteip remote-ip-address remotehostname remote-host-name [start stop] [authtype simple challenge none] [secret tunnel-secret] [hellointerval hello-interval] [idletimeout {infinite num <decValue>}] [crws contol-recv-window-size] [maxretx max-retransmission] [maxretxtimeout max-retransmission-timeout] [payloadseq never always] [transport udpip] [initiator local remote] [enable disable]</i>
<i>delete l2tp tunnel config</i>	<i>ifname interface-name</i>
<i>get l2tp global config</i>	-
<i>get l2tp tunnel config</i>	<i>ifname interface-name</i>
<i>get l2tp udp stats</i>	<i>ifname interface-name</i>
<i>get l2tp tunnel stats</i>	<i>ifname interface-name</i>
<i>get l2tp global info</i>	-
<i>get l2tp session stats</i>	<i>pppifname interface-name</i>
<i>modify l2tp global config</i>	<i>timeout {infinite num <decValue>}]</i>
<i>modify l2tp tunnel config</i>	<i>ifname interface-name [localhostname local-host-name] [remotehostname remote-host-name]</i>

	<pre>[start stop] [authtype simple challenge none] [secret tunnel-secret] [hellointerval hello-interval] [idletimeout {infinite {num <decValue>}}] [crws contol-recv-window-size] [maxretx max-retransmission] [maxretxtimeout max-retransmission-timeout] [payloadseq never always]] [transport udpip] [initiator local remote] [enable disable]</pre>
<code>reset l2tp tunnel stats</code>	<code>ifname interface-name</code>
<code>reset l2tp session stats</code>	<code>ifname interface-name</code>

4.21 L2Wall Commands

COMMANDS	PARAMETERS
<code>get l2wall cfg</code>	<code>none</code>
<code>modify l2wall cfg</code>	<code>[off on auto] [inacttime inactive-time]</code>

4.22 NAT Commands

COMMANDS	PARAMETERS
<code>create nat rule entry</code>	<pre>ruleid rule-id {basic filter napt bimap rdr pass} [prot {any tcp udp icmp num prot-number}] [ifname interface -name] [lcladdrfrom local-address-from] [lcladdrto local-address-to] [destaddrfrom dest-address-from] [destaddrto dest-address-to] [destportfrom {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp] [destportto {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp] [glbaddrfrom global-address-from] [glbaddrto global-address-to] [lclport {num <decvalue>} echo discard chargen ftp telnet smtp dns boot tftp http pop3 snmp]</pre>
<code>delete nat rule entry</code>	<code>ruleid rule-id</code>
<code>get nat global</code>	<code>-</code>
<code>get nat rule entry</code>	<code>[ruleid rule-id]</code>
<code>get nat rule stats</code>	<code>[ruleid rule-id]</code>
<code>get nat rule status</code>	<code>[ruleid rule-id]</code>
<code>get nat stats</code>	<code>-</code>
<code>get nat status</code>	<code>-</code>
<code>get nat translation</code>	<code>-</code>
<code>modify nat global</code>	<pre>[tcpidletimeout tcp-idle-timeout] [tcpclosewait tcp-close-wait] [tcptimeout tcp-timeout] [udptimeout udp-timeout] [gretimeout gre-timeout][esptimeout esp-timeout] [icmptimeout icmp-timeout] [defnatage default-nat-timeout] [{enable disable}] [portstart port-start] [portend port-end]</pre>
<code>reset nat rule stats</code>	<code>[ruleid rule-id]</code>

<code>reset nat stats</code>	-
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4.23 Raw Packet Filtering Commands

COMMANDS	PARAMETERS
<code>create pfraw rule entry</code>	<code>ruleid rule-id [ifname interface-name public private dmz all] [dir in out] [inifname interface-name public private dmz all] [enable disable] [log disable match nomatch all] [act accept deny callmgmt]</code>
<code>create pfraw subrule entry</code>	<code>ruleid rule-id subruleid sub-rule-id mask mask-value [start linkh iph tcph tcpd udph udpd icmph icmpd] offset offset [enable disable] cmpt {eq neq lt lteq gt gteq val} {range low-val high-val} {any}</code>
<code>delete pfraw rule entry</code>	<code>ruleid rule-id</code>
<code>delete pfraw subrule entry</code>	<code>ruleid rule-id subruleid sub-rule-id</code>
<code>get pfraw rule info</code>	<code>[ifname interface-name] [dir in out] [ruleid rule-id] [subruleid subrule-id]</code>
<code>modify pfraw rule entry</code>	<code>ruleid rule-id [enable disable] [log disable match nomatch all] [act accept deny callmgmt]</code>
<code>modify pfraw subrule entry</code>	<code>ruleid rule-id subruleid sub-rule-id [mask mask-value] [start linkh iph tcph tcpd udph udpd icmph icmpd] [offset offset] [enable disable] [cmpt {eq neq lt lteq gt gteq val} {range low-val high-val} {any}]</code>
<code>modify pfraw global</code>	<code>[enable disable] [accept deny callmgmt]</code>
<code>get pfraw global</code>	-
<code>get pfraw stats</code>	-
<code>get pfraw rule stats</code>	<code>[ruleid rule-id]</code>
<code>get pfraw block</code>	<code>protocol IPV6MCAST 8021Q ARP BPDU IPX NETBEUI APPLETALK RARP IPMCAST PPE L2WALL</code>
<code>modify pfraw block</code>	<code>protocol IPV6MCAST 8021Q ARP BPDU IPX NETBEUI APPLETALK RARP IPMCAST PPE L2WALL enable disable</code>

4.24 PPP Commands

COMMANDS	PARAMETERS
<code>create ppp intf</code>	<code>ifname interface-name lowif low-interface-name {PPOE PPOA L2TP} [ip ip-address] [usedhcp {true false}] [inside outside none] [mru max-rx-unit] [magic {true false}] [droute {true false}] [sname service-name] [start stop startondata] [usedns true false] [ifsectype public private dmz] [l2tpcalltype</code>

	<i>outlns outlac inlns inlac</i> [<i>usegwy local remote</i>][<i>gwyip <ddd.ddd.ddd.ddd></i>] [<i>numif <name></i>]
<i>create ppp security</i>	<i>ifname interface-name</i> [<i>pap chap</i>] <i>login login-name</i> <i>passwd password</i>
<i>delete ppp intf</i>	<i>ifname interface-name</i>
<i>delete ppp security</i>	<i>ifname interface-name</i>
<i>get ppp intf</i>	[<i>ifname interface-name</i>]
<i>get ppp ipinfo</i>	[<i>ifname interface-name</i>]
<i>get ppp lstatus</i>	[<i>ifname interface-name</i>]
<i>get ppp security</i>	[<i>ifname interface-name</i>]
<i>modify ppp intf</i>	<i>ifname interface-name</i> [<i>start stop statondata</i>] [<i>mru<decvalue></i>] [<i>magic true false</i>] [<i>l2tpcalltype outlns outlac inlns inlac</i>]
<i>get ppp global</i>	-
<i>modify ppp global</i>	[<i>pppsesstimer ppp-sess-timer</i>] [<i>ignorewantolan true false</i>]
<i>modify ppp security</i>	<i>ifname interface-name</i> [<i>login login-name</i>] [<i>passwd password</i>] [<i>pap chap</i>]

4.25 PPPoE Commands

COMMANDS	PARAMETERS
<i>create ppe pconf</i>	<i>acname AC-name</i> [<i>srvname service-name</i>]
<i>delete ppe pconf</i>	<i>acname AC-name</i> [<i>srvname service-name</i>]
<i>get ppe acserv</i>	<i>ifname interface-name</i>
<i>get ppe cfg</i>	-
<i>get ppe pconf</i>	-
<i>get ppe stats global</i>	-
<i>get ppe stats session</i>	[<i>ifname interface-name</i>]
<i>modify ppe cfg</i>	[<i>padimax max-padi-attempts</i>] [<i>padrmax max-padr-attempts</i>] [<i>discmax max-discovery-attempts</i>] [<i>paditime initial-padi-time-difference</i>] [<i>padrtime initial-padr-time-difference</i>] [<i>first-come serv-to-ac</i>]

4.26 RIP Commands

COMMANDS	PARAMETERS
<i>modify rip global</i>	[<i>enable disable</i>] [<i>updatetime update-time</i>] [<i>agetime age-time</i>]
<i>create rip intf</i>	{ <i>ifname interface-name</i> } [<i>metric metric-value</i>] [<i>send {rip1 rip2 rip1compat none}</i>] [<i>senddefroute {enable disable}</i>] [<i>receive {rip1 rip2 both none}</i>] [<i>rcvdefroute {enable disable}</i>] [<i>auth {none text password}</i>]
<i>delete rip intf</i>	{ <i>ifname interface-name</i> }
<i>get rip intf</i>	[<i>ifname interface-name</i>]

<i>modify rip intf</i>	<i>{ifname interface-name} [metric metric-value] [send {rip1 rip2 rip1compat none}] [senddefroute {enable disable}] [receive {rip1 rip2 both none}] [recvdefroute {enable disable}] [auth {none text password}]</i>
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4.27 RMON Commands

COMMANDS	PARAMETERS
<i>get rmon eventgrp</i>	<i>[rname event-grp-name]</i>
<i>get rmon mpool</i>	<i>[rname mem-pool-name]</i>
<i>get rmon queue</i>	<i>[rname queue-name]</i>
<i>get rmon semaphore</i>	<i>[rname semaphore-name]</i>
<i>get rmon task</i>	<i>[rname task-name]</i>

4.28 SNMP Commands

COMMANDS	PARAMETERS
<i>create snmp comm</i>	<i>community comm-name [ro rw]</i>
<i>create snmp host</i>	<i>ip ip-addr community comm-name</i>
<i>delete snmp comm</i>	<i>community comm-name</i>
<i>delete snmp host</i>	<i>ip ip-addr community comm-name</i>
<i>get snmp comm</i>	<i>[community comm-name]</i>
<i>get snmp host</i>	-
<i>get snmp stats</i>	-
<i>get snmp trap</i>	-
<i>modify snmp trap</i>	<i>{enable disable}</i>

4.29 SMTP Commands

COMMANDS	PARAMETERS
<i>modify smtp servaddr</i>	-
<i>get smtp servaddr</i>	-

4.30 SNTP Commands

COMMANDS	PARAMETERS
<i>create sntp servaddr</i>	<i><ip-address> dname <domain-name></i>
<i>delete sntp servaddr</i>	<i>< ip-address dname domain-name ></i>
<i>get sntp servaddr</i>	<i>[<ip-address> dname <domain-name>]</i>
<i>modify sntp cfg</i>	<i>[enable disable]</i>
<i>get sntp cfg</i>	-

<i>get sntp stats</i>	<i>[<ip-address>] dname <domain-name>]</i>
<i>reset sntp stats</i>	-

4.31 Surfing Profile Commands

COMMANDS	PARAMETERS
<i>reset surf profile reg</i>	-

4.32 TCP Commands

COMMANDS	PARAMETERS
<i>delete tcp conn</i>	<i>lclip local-ip-address lclport local-port rmtip remote-ip-address rmtport remote-port</i>
<i>get tcp conn</i>	-
<i>get tcp stats</i>	-

4.33 UDP Commands

COMMANDS	PARAMETERS
<i>get udp listen</i>	-
<i>get udp stats</i>	-

4.34 UNI Commands

COMMANDS	PARAMETERS
<i>create atm uni</i>	<i>ifname interface-name saddr source-atm-addr [nplan isdn atmes] [version uni31 uni40]</i>
<i>delete atm uni</i>	<i>[ifname interface-name]</i>
<i>get atm uni</i>	<i>[ifname interface-name]</i>

4.35 Usage Control Commands

COMMANDS	PARAMETERS
<i>get usagectl</i>	-
<i>modify usagectl</i>	<i>[maxusers <maxuser>] [enable disable]</i>
<i>get datauserslist</i>	-
<i>reset datauserslist</i>	-

4.36 USB Commands

COMMANDS	PARAMETERS
<code>create usb intf</code>	<code>ifname interface - name [ip ip-address] [mask net-mask] [inside outside none] [ifsectype public private dmz]</code>
<code>delete usb intf</code>	<code>delete usb intf ifname interface-name</code>
<code>get usb intf</code>	<code>get usb intf [ifname interface-name]</code>
<code>modify usb intf</code>	<code>modify usb intf ifname interface-name [ip ip-address] [mask net-mask]</code>
<code>get usb stats</code>	<code>get usb stats [ifname interface-name]</code>

4.37 ZIPB Commands

COMMANDS	PARAMETERS
<code>modify zipb cgf enable</code>	-

4.38 Other Commands

COMMANDS	PARAMETERS
<code>apply</code>	<code>fname file-name [besteffort true false] [sparams "<params>"]</code>
<code>alias</code>	<code>[alias-string = aliased-command]</code>
<code>commit</code>	-
<code>create user</code>	<code>name user-name passwd password [root user intermediate] useserial</code>
<code>delete user</code>	<code>name user-name</code>
<code>do getserialize</code>	-
<code>do getver</code>	-
<code>do serialize</code>	<code>MAC-address serial-number USB-MAC-address</code>
<code>download</code>	<code>fname file-name ip ip-address</code>
<code>get autoupdate</code>	-
<code>get size info</code>	-
<code>get system</code>	-
<code>get trace cfg</code>	<code>[module module-name]</code>
<code>get trace stats</code>	-
<code>get traps</code>	<code>[num-of-traps]</code>
<code>get trapprints</code>	-
<code>get user</code>	-
<code>get nbsize</code>	-
<code>help</code>	?
<code>list</code>	list
<code>logout</code>	quit exit
<code>modify autoupdate</code>	<code>modify autoupdate true false</code>
<code>modify system</code>	<code>[contact sys-contact] [model model-name] [location sys-location] [vendor sys-vendor-info] [logthresh sys-log-threshold] [systime systime] [dst <on off>] [timezone <timezone>] [name <name>]</code>

	<i>[dname <domain>]</i>
<i>modify trace cfg</i>	<i>module module-name [flow trace-flow] [level trace-level] [syslog net stdout] [dest ip-address] [port port-number]</i>
<i>modify trapprints</i>	<i>enable disable</i>
<i>passwd</i>	<i>[user-id]</i>
<i>ping</i>	<i>{ip-address domain-name} [-t -n number] [-i time-to-live] [-w seconds] [-s size]</i>
<i>prompt</i>	<i>new-prompt</i>
<i>reboot</i>	<i>[default backup last minimum clean]</i>
<i>remove</i>	<i>remove fname file-name</i>
<i>reset traps</i>	<i>-</i>
<i>size</i>	<i>[maxvc max-num-of-vcs] [max1483vc max-1483-vc] [maxppe max-ppe-session] [maxmac max-num-of-mac-addresses] [maxpfrawrule max-num-pfraw-rules] [maxpfrawsubrule max-pfraw-subrules] [maxipfrule max-num-ipf-rules] [maxl2tpTunnel max-l2t-tunnel] [maxl2tpSessPerTunnel max-l2t-session-per-tunnel] [maxl2tppeerws max-l2t-peer-recv-window]</i>
<i>traceroute</i>	<i>{ip-address domain-name} {ping udp} [-m num-of-hops] [-w wait-time] [-p udp-port-number] [-q num-of-probes]</i>
<i>unalias</i>	<i>{all alias-string}</i>
<i>modify nbsize</i>	<i>maxipsess max-num-ip-sessions] [httpport http-port] [telnetport telnet-port] [ftpport ftp-port][serialauth enable disable]</i>
<i>verbose</i>	<i>{on off}</i>
<i>do getver</i>	<i>-</i>
<i>do serialize</i>	<i><Ethernet Mac Address> <Serial Number> <USB Mac Address></i>

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