CLI Documentation

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Chapter 1 Introduction

1.1 Notes

1) Definitions

1. {}: indicates that the element is required. If multiple elements are separated with a vertical bar (|), it indicates that either one of the elements is required.

2. []: indicates that the element is optional.

3. <>: indicates that the element is a single required element.

4. Host name is written as hostname in the CLI prompt.

5. is an end mark.

2) Command-Line Interface (CLI)

Introduction

CLI provides a rich set of command-line commands and command-line interfaces for users to configure and manage resources.

The following sections will be dedicated to the introduction of CLI usage and features.

CLI Modes and Prompts

Operational Mode

When you log in, the CLI opens in operational mode.

You are only allowed to perform operations within your permission.

The command prompt is hostname#, including a #.

Global Configuration Mode

In global configuration mode, you are allowed to view and modify the configuration.

To enter global configuration mode while in operational mode, use the config command.

The command prompt is hostname(config)#.

Specific Configuration Modes

Specific configuration modes are used for the configuration of specific modules.

From global configuration mode, you can use a number of commands to enter specific configuration modes.

For example, enter and execute interface eth0 command to enter interface configuration mode.

The command prompt is hostname(config-interface-eth0)#.

Switchover

When you log in, the CLI opens in operational mode.

You can use different commands to switch from one mode to another mode.

1. config: Switch from operational mode to global configuration mode.

2. exit: Exit this mode and go back to previous mode. Typing exit in operational mode will end the CLI session.

3. end: Exit a mode and return to operational mode.

4. Entering different commands will return you from global configuration mode to different specific configuration mode.

Enter CLI Commands

Auto-Display Commands

You can enter a question mark (?) at the CLI prompt to display one of two types of user information.

1. Enter part of a command string and end it with a question mark (?) to display options that you can use to complete the string or available arguments to follow the command.

2. Enter a question mark (?) at the CLI prompt to display the commands you can execute in the current mode.

Auto-Complete Commands

The CLI supports the TAB completion.

You can hit the TAB key for auto-completion of entered commands.

However, entered characters must uniquely identify a command or keyword in a command string.

For example, if you enter conf and then press the Tab key in the operational mode, the command-line interface will auto-complete the command as config.

Escape Characters

You can escape special characters with a backslash. Examples:

1. Suppose you want to enter a backslash. This needs to be escaped as \\.

2. \n for the Enter key and \t for the horizontal tab key.

3. For non-escape characters, \k equals to k.

Edit CLI Commands

View Command History

The history buffer retains the last 60 commands entered. You can press the up and down arrow keys or use the shortcut (Ctrl-P and Ctrl-N) to view the previous command or next command in the history list.

Keyboard Shortcuts

1. Ctrl-A Move to the start of the current line.

2. Ctrl-B Move back a character.

3. Ctrl-D Delete character at point.

4. Ctrl-E Move to the end of the line.

5. Ctrl-F Move forward a character.

6. Ctrl-H Delete the character before point.

7. Ctrl-K Delete the text from point to the end of the line.

8. Ctrl-N Fetch the next command from the history list.

9. Ctrl-P Fetch the previous command from the history list.

10. Ctrl-T Transposes the current and previous characters.

11. Ctrl-U Delete the current line.

Filter the Output

show command shows running system information.

You can filter the output of show command as per your needs.

The method is to add a filter after the show command and separate the filter and the command with a vertical bar.

Four filters are as follows (regex is supported).

1. include: displays matched information.

2. exclude: displays all information other than matched information.

3. begin: displays output from the first match of the filter.

4. begin2: displays output from the second match of the filter.

Display Paged Output

Output of some commands is very long, which may be displayed on many pages. For this kind of output, the CLI uses the prompt --More-- to indicate the end of a page.

You can enter different commands to display more information or display no more information.

1. Display next row: press the Enter key.

2. Return to the command line: press Q, q, N or n.

3. Display next page: press Y, y or space.

Verify the Output

If you write a script for output verification, you should use column header name field to obtain the output.

Chapter 2 Objects

2.1 Network Objects

2.1.1 show netidentify−server

1) Command Name

show netidentify−server

2) Synopsis

show netidentify−server <cr>

3) Function Specification

View server discovery results

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show netidentify−server

2.1.2 show ipgroup

1) Command Name

show ipgroup

2) Synopsis

show ipgroup [<name>]

3) Function Specification

View network object

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	Network object name

5) Subcommand

None

6) Sample

hostname(config)# show ipgroup test
hostname(config)# show ipgroup

2.1.3 show ignore-page

1) Command Name

show ignore-page

2) Synopsis

show ignore-page <cr>

3) Function Specification

View ignored pages

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show ignore-page

2.1.4 show advanced-config

1) Command Name

show advanced-config

2) Synopsis

show advanced-config <cr>

3) Function Specification

View Advanced in Server Discovery

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show advanced-config

2.1.5 show ignore-server

1) Command Name

show ignore-server

2) Synopsis

show ignore-server <cr>

3) Function Specification

View ignored servers

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show ignore-server

2.1.6 show sensitive-page

1) Command Name

show sensitive-page

2) Synopsis

show sensitive-page <cr>

3) Function Specification

View pages without being ignored

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show sensitive-page

2.1.7 ipgroup

1) Command Name

ipgroup

2) Synopsis

ipgroup <name> [<address-type-value>]

3) Function Specification

Configure a network object and edit it

4) Parameter Specification

Name	Range	Mandatory	Description

<address-type-value>	ENUM:[ipv4: IPv4 address ipv6: IPv6 address]	ENUM	Protocol
<name>	length:(1-95)	STRING	Name of network object

5) Subcommand

<1> member

- **Synopsis**

member <member-name>
- **Function Specification**

Associate with an address group for current address group
- **Parameter Specification**

Name	Range	Mandatory	Description
<member-name>	length:(1-95)	STRING	Network object

<2> no member

- **Synopsis**

no member <member-name>
- **Function Specification**

Delete an associated address group from current address group
- **Parameter Specification**

Name	Range	Mandatory	Description
<member-name>	length:(1-95)	STRING	Network object

<3> sensitive-data

- **Synopsis**

sensitive-data <sensitive-value>
- **Function Specification**

Set sensitivity for network object
- **Parameter Specification**

Name	Range	Mandatory	Description
<sensitive-value>	ENUM:[auto: Any exist: Sensitive not-exist: Insensitive]	ENUM	Sensitivity

<4> type

- **Synopsis**

type <type-value>
- **Function Specification**

Set address type
- **Parameter Specification**

Name	Range	Mandatory	Description
<type-value>	ENUM:[ip: IP address business: Business asset address user: User IP address addrgroup: Address group]	ENUM	Address type

<5> importance

- **Synopsis**

importance <importance-value>

- **Function Specification**

Set criticality for network object

- **Parameter Specification**

Name	Range	Mandatory	Description
<importance-value>	ENUM:[oridnary: Noncritical user or noncritical business asset key: Critical user or critical business asset]	ENUM	Criticality of network objects

<6> ipentry

- **Synopsis**

ipentry <ip46-address>

- **Function Specification**

Add an IP entry for current network object

- **Parameter Specification**

Name	Range	Mandatory	Description

<ip46-address>	–	A.B.C.D/M Address format: A.B.C.D/M A.B.C.D/E.F.G.H Address format: A.B.C.D/E.F.G.H A.B.C.D–E.F.G.H Address format: A.B.C.D–E.F.G.H A.B.C.D Address format: A.B.C.D A:B:C:D::E Address format: A:B:C:D::E A:B:C:D::E/M Address format: A:B:C:D::E/M A:B:C:D::E–F:G:H:I::J Address format: A:B:C:D::E–F:G:H:I::J	IP address

<7> no ipentry

- **Synopsis**

no ipentry <ip46-address>
- **Function Specification**

Delete an IP entry for current network object
- **Parameter Specification**

Name	Range	Mandatory	Description

<ip46-address>	–	A:B:C:D::E Address format: A:B:C:D::E A:B:C:D::E /M Address format: A: B:C:D::E/ M A:B:C:D::E –F:G:H:I::J Address format: A: B:C:D::E– F:G:H:I::J A.B.C.D/M Address format: A.B.C.D/M A.B.C.D/E. F.G.H Address format: A. B.C.D/E.F. G.H A.B.C.D– E.F.G.H Address format: A. B.C.D–E.F .G.H A.B.C.D Address format: A.B.C.D	IP address

<8> description

- **Synopsis**

  description <description-value>
- **Function Specification**

  Set description for network object
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value >	length:(0-95)	STRING	Description of network objects

6) Sample

```
hostname(config)# ipgroup test
hostname((config-ipgroup-test)# type business
hostname((config-ipgroup-test)# description test
hostname((config-ipgroup-test)# importance key
hostname((config-ipgroup-test)# sensitive-data auto
hostname((config-ipgroup-test)# ipentry 192.168.1.1
hostname((config-ipgroup-test)# no ipentry 192.168.1.1
```

hostname((config-ipgroup-test)# member testgroup
hostname((config-ipgroup-test)# no member testgroup

2.1.8 no ipgroup

1) Command Name

no ipgroup

2) Synopsis

no ipgroup <name>

3) Function Specification

Delete network object

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Network object name

5) Subcommand

None

6) Sample

hostname(config)# no ipgroup test

2.1.9 discoverd-servers

1) Command Name

discoverd-servers

2) Synopsis

discoverd-servers <cr>

3) Function Specification

Configure server discovery

4) Parameter Specification

None

5) Subcommand

<1> custom-identify

- **Synopsis**

custom-identify <custom-identify-value>
- **Function Specification**

Specified network objects
- **Parameter Specification**

Name	Range	Mandatory	Description

	ENUM:[enable: Enable disable: Disable]	ENUM	Specified network objects
<custom-identify-value>			

<2> sensitive-identify

- **Synopsis**

sensitive-identify <sensitive-identify-value>
- **Function Specification**

Identify sensitive business data
- **Parameter Specification**

Name	Range	Mandatory	Description
<sensitive-identify-value>	ENUM:[enable: Enable disable: Disable]	ENUM	Identify sensitive business data

<3> ignore-server

- **Synopsis**

ignore-server <server-ip> <cr>
- **Function Specification**

Add server IP address to the ignored servers
- **Parameter Specification**

Name	Range	Mandatory	Description
<server-ip>	–	STRING	Server IP address

<4> no ignore-server

- **Synopsis**

no ignore-server <server-ip>
- **Function Specification**

Remove server IP address from ignored servers
- **Parameter Specification**

Name	Range	Mandatory	Description
<server-ip>	–	STRING	Server IP address

<5> ignore-page

- **Synopsis**

ignore-page <number>
- **Function Specification**

Add pages with sensitive data to the ignored pages
- **Parameter Specification**

Name	Range	Mandatory	Description
<number>	–	NUMBER	Add pages with sensitive data to the ignored pages

<6> no ignore-page

- **Synopsis**

no ignore-page <number>
- **Function Specification**

Remove pages with sensitive data from ignored pages
- **Parameter Specification**

Name	Range	Mandatory	Description
<number>	–	NUMBER	Remove pages with sensitive data from ignored pages

<7> auto-identify

- **Synopsis**

auto-identify <auto-identify-value>
- **Function Specification**

Auto-discover servers and services
- **Parameter Specification**

Name	Range	Mandatory	Description
<auto-identify-value>	ENUM:[enable: Enable disable: Disable]	ENUM	Auto-discover servers and services

<8> custom-identify-range

- **Synopsis**

custom-identify-range <netobj>
- **Function Specification**

Add network objects to the specified network objects
- **Parameter Specification**

Name	Range	Mandatory	Description
<netobj>	–	STRING	Network object

<9> no custom-identify-range

- **Synopsis**

no custom-identify-range <netobj>
- **Function Specification**

Remove network objects from the specified network objects
- **Parameter Specification**

Name	Range	Mandatory	Description
<netobj>	–	STRING	Network object

6) Sample

```
hostname(config)# discoverd-servers
hostname(config)# ignore-server 1.1.1.1
hostname(config)# no ignore-server 1.1.1.1
hostname(config)# ignore-page 0
hostname(config)# no ignore-page 0
```

```
hostname(config)# auto-identify enable
hostname(config)# custom-identify disable
hostname(config)# custom-identify-range testRange
hostname(config)# no custom-identify-range testRange
```

2.2 Services

2.2.1 show servgroup

1) Command Name

show servgroup

2) Synopsis

show servgroup [<servgroup-name>] <cr>

3) Function Specification

View service group

4) Parameter Specification

Name	Range	Mandatory	Description
<servgroup-name>	length:(1-95)	STRING	View service group

5) Subcommand

None

6) Sample

```
hostname# show servgroup
hostname# show servgroup servg1
```

2.2.2 show service

1) Command Name

show service

2) Synopsis

show service [{name <service-name> | type <type-value>}] <cr>

3) Function Specification

View all services

4) Parameter Specification

Name	Range	Mandatory	Description

type <type−value>	ENUM:[predefined: Predefined service userdefined: Custom service]	ENUM	Service type
name <service−name>	length:(1−95)	STRING	Service name

5) Subcommand

None

6) Sample

```
hostname# show service
hostname# show service name serv1
hostname# show service type userdefined
```

2.2.3 servgroup

1) Command Name

servgroup

2) Synopsis

servgroup <name−value>

3) Function Specification

Add or edit service group

4) Parameter Specification

Name	Range	Mandatory	Description
<name−value>	length:(1−95)	STRING	Add or edit service group

5) Subcommand

<1> description

- **Synopsis**

description <description−value>
- **Function Specification**

Description of service group
- **Parameter Specification**

Name	Range	Mandatory	Description
<description−value >	length:(0−95)	STRING	Description of service group

<2> service

- **Synopsis**

service <service-name>
- **Function Specification**

Configure service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Configure service

<3> no service

- **Synopsis**

no service <service-name>
- **Function Specification**

Delete service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Delete service

6) Sample

```
hostname(config)# servgroup servg1
hostname(config-servgroup-sg1)# description xxxxx
hostname(config-servgroup-sg1)# service ftp
```

2.2.4 no servgroup

1) Command Name

no servgroup

2) Synopsis

no servgroup <name-value>

3) Function Specification

Delete service group

4) Parameter Specification

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Delete service group

5) Subcommand

None

6) Sample

```
hostname(config)# no servgroup servg1
```

2.2.5 service

1) Command Name

service

2) Synopsis

service <name-value>

3) Function Specification

Add or modify service

4) Parameter Specification

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Add or modify service

5) Subcommand

<1> icmpv6

- **Synopsis**

icmpv6 type <type-num> code <code-num>
- **Function Specification**

Add ICMPv6 service
- **Parameter Specification**

Name	Range	Mandatory	Description
type	0-255	NUMBER	Type (255 indicates any ICMP type)
code	0-255	NUMBER	Code (255 indicates any ICMP code)

<2> no icmpv6

- **Synopsis**

no icmpv6 type <type-num> code <code-num>
- **Function Specification**

Delete ICMPv6 service
- **Parameter Specification**

Name	Range	Mandatory	Description
type	0-255	NUMBER	Type (255 indicates any ICMP type)
code	0-255	NUMBER	Code (255 indicates any ICMP code)

<3> udp

- **Synopsis**

udp [src-port <port-num>] dst-port <port-num>
- **Function Specification**

Port details of UDP
- **Parameter Specification**

Name	Range	Mandatory	Description
dst-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Destination port
src-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Source port

<4> no udp

- **Synopsis**

no udp [src-port <port-num>] dst-port <port-num>
- **Function Specification**

Port details of UDP
- **Parameter Specification**

Name	Range	Mandatory	Description
dst-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Destination port

src-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Source port

<5> tcp

- **Synopsis**

tcp [src-port <port-num>] dst-port <port-num>
- **Function Specification**

Port details of TCP
- **Parameter Specification**

Name	Range	Mandatory	Description
dst-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Destination port
src-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Source port

<6> no tcp

- **Synopsis**

no tcp [src-port <port-num>] dst-port <port-num>
- **Function Specification**

Port details of TCP
- **Parameter Specification**

Name	Range	Mandatory	Description

dst-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Destination port
src-port <port-num>	–	A A port number A-B Port range A-B,C-D, E Multiple port ranges, separated by commas	Source port

<7> protocol

- **Synopsis**

protocol <protocol-num>
- **Function Specification**

Details of other protocols
- **Parameter Specification**

Name	Range	Mandatory	Description
<protocol-num>	0-256	0-256 IP protocol number	Details of other protocols

<8> no protocol

- **Synopsis**

no protocol <protocol-num>
- **Function Specification**

Details of other protocols
- **Parameter Specification**

Name	Range	Mandatory	Description
<protocol-num>	0-256	0-256 IP protocol number	Details of other protocols

<9> icmp

- **Synopsis**

icmp type <type-num> code <code-num>
- **Function Specification**

Type and code details of ICMP

- Parameter Specification

Name	Range	Mandatory	Description
type	0-255	NUMBER	Type (255 indicates any ICMP type)
code	0-255	NUMBER	Code (255 indicates any ICMP code)

<10> no icmp

- Synopsis

no icmp type <type-num> code <code-num>

- Function Specification

Type and code details of ICMP

- Parameter Specification

Name	Range	Mandatory	Description
type	0-255	NUMBER	Type (255 indicates any ICMP type)
code	0-255	NUMBER	Code (255 indicates any ICMP code)

<11> description

- Synopsis

description <description-value>

- Function Specification

Edit description of service

- Parameter Specification

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Service description

6) Sample

```
hostname(config)# service serv1
hostname(config-service-sv1)# description xxxxx
hostname(config-service-sv1)# tcp dst-port 10
hostname(config-service-sv1)# tcp src-port 0-65535 dst-port 10
hostname(config-service-sv1)# tcp src-port 10-20 dst-port 10-20
hostname(config-service-sv1)# tcp src-port 10-20,30 dst-port 10-20,30
hostname(config-service-sv1)# udp dst-port 10
hostname(config-service-sv1)# udp src-port 0-65535 dst-port 10
hostname(config-service-sv1)# udp src-port 10-20 dst-port 10-20
hostname(config-service-sv1)# udp src-port 10-20,30 dst-port 10-20,30
hostname(config-service-sv1)# icmp type 10 code 10
hostname(config-service-sv1)# icmpv6 type 10 code 10
hostname(config-service-sv1)# no tcp dst-port 10
hostname(config-service-sv1)# no udp dst-port 10
hostname(config-service-sv1)# no icmp type 10 code 10
hostname(config-service-sv1)# no icmp6 type 10 code 10
hostname(config-service-sv1)# no protocol 10
```

2.2.6 no service

1) Command Name

no service

2) Synopsis

no service <service-name>

3) Function Specification

Delete service

4) Parameter Specification

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Delete service

5) Subcommand

None

6) Sample

```
hostname(config)# no service serv1
hostname(config-service-sv1)# no tcp dst-port 10
hostname(config-service-sv1)# no tcp src-port 0-65535 dst-port 10
hostname(config-service-sv1)# no tcp src-port 10-20 dst-port 10-20
hostname(config-service-sv1)# no tcp src-port 10-20,30 dst-port 10-20,30
hostname(config-service-sv1)# no udp dst-port 10
hostname(config-service-sv1)# no udp src-port 0-65535 dst-port 10
hostname(config-service-sv1)# no udp src-port 10-20 dst-port 10-20
hostname(config-service-sv1)# no udp src-port 10-20,30 dst-port 10-20,30
hostname(config-service-sv1)# no icmp type 10 code 10
hostname(config-service-sv1)# no icmpv6 type 10 code 10
hostname(config-service-sv1)# no protocol 10
```

2.3 Content Identification

2.3.1 Application Signatures

2.3.1.1 show app-signature

1) Command Name

show app-signature

2) Synopsis

show app-signature {feature [<name>]|intellegence [<name>]|userdefined [<name>]|list [<name>]|application <name>}

3) Function Specification

View signature name in Application Signature Database

4) Parameter Specification

Name	Range	Mandatory	Description
list <name>	–	STRING	View all rules
application <name>	–	STRING	View all signatures of the application

userdefined <name>	–	STRING	View custom application signatures
intellegence <name>	–	STRING	View predefined signature database (Advanced App Signatures)
feature <name>	–	STRING	View predefined application signature database (Application Signatures)

5) Subcommand

None

6) Sample

```
hostname# show app-signature feature
hostname# show app-signature feature DNS
hostname# show app-signature intellegence
hostname# show app-signature intellegence skype
hostname# show app-signature userdefined
hostname# show app-signature userdefined test
hostname# show app-signature application Custom_tt1/Custom_aa1
```

2.3.1.2 show application-type

1) Command Name

show application-type

2) Synopsis

show application-type {feature [<type-name>]|intellegence [<type-name>]|list [<type-name>]|userdefined [<type-name>]}

3) Function Specification

View application category of application signature

4) Parameter Specification

Name	Range	Mandatory	Description
intellegence [<type-name>]	–	STRING	View predefined application category (Advanced App Signatures)
userdefined [<type-name>]	–	STRING	View category of custom application signature
list [<type-name>]	–	STRING	View all application categories
feature [<type-name>]	–	STRING	View predefined application category (Application Signatures)

5) Subcommand

None

6) Sample

```
hostname# show application-type list
hostname# show application-type feature
hostname# show application-type userdefined
hostname# show application-type intellegence
hostname# show application-type list IM
hostname# show application-type feature IM
hostname# show application-type intellegence IM
hostname# show application-type userdefined Custom_tt1
```

2.3.1.3 show application

1) Command Name

show application

2) Synopsis

show application {feature [<name>]|intellegence [<name>]|userdefined [<name>]|list [<name>]}

3) Function Specification

View application names in Application Signature Database

4) Parameter Specification

Name	Range	Mandatory	Description
intellegence <name>	–	STRING	View predefined application (Advanced App Signatures)
userdefined <name>	–	STRING	View custom applications
list <name>	–	STRING	View all applications
feature <name>	–	STRING	View predefined application (Application Signatures)

5) Subcommand

None

6) Sample

```
hostname# show application list
hostname# show application feature
hostname# show application intellegence
hostname# show application userdefined
hostname# show application list  IM/skype
hostname# show application feature IM/skype
hostname# show application intellegence IM/skype
hostname# show application userdefined Custom_tt1/Custom_aa1
```

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2.3.1.4 show application-ref

1) Command Name

show application-ref

2) Synopsis

show application-ref <ref-value> <cr>

3) Function Specification

View application/application category reference (full path of application/application category required)

4) Parameter Specification

Name	Range	Mandatory	Description
<ref-value>	–	STRING	View application/application category reference (full path of application/application category required)

5) Subcommand

None

6) Sample

hostname# show application-ref apptype/appname
hostname# show application-ref apptype

2.3.1.5 app-signature

1) Command Name

app-signature

2) Synopsis

app-signature <name> [appname <appname-value>]

3) Function Specification

Add or modify custom application signature

4) Parameter Specification

Name	Range	Mandatory	Description
appname <appname-value>	–	STRING	Application name (Custom application path is required. Example: IM/QQ)
<name>	–	STRING	Rule name

5) Subcommand

<1> enable

- Synopsis

enable <cr>
- Function Specification

Description
- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable rule

<2> setappname

- Synopsis

setappname <appname−value>
- Function Specification

Modify application name of custom application signature
- Parameter Specification

Name	Range	Mandatory	Description
<appname−value>	–	STRING	Modify application name of custom application signature

<3> domains

- Synopsis

domains <domain−value>
- Function Specification

Add a matched destination domain name. Number of domain names cannot exceed 10.
- Parameter Specification

Name	Range	Mandatory	Description
<domain−value>	–	STRING	Add a matched destination domain name. Number of domain names cannot exceed 10.

<4> no domains

- Synopsis

no domains <domain−value> <cr>
- Function Specification

Delete target domain of a custom application signature
- Parameter Specification

Name	Range	Mandatory	Description
<domain−value>	–	STRING	Delete target domain of a custom application signature

\<5\> iprange

- **Synopsis**

iprange \<ip-address\>
- **Function Specification**

Modify IP address of custom application signature
- **Parameter Specification**

Name	Range	Mandatory	Description
\<ip-address\>	–	A.B.C.D IP address A.B.C.D/M IP address, netmask A.B.C.D-A.B.C.D IP range A.B.C.D/A.B.C.D IP addresses with dotted decimal netmask, for example, A.B.C.D/A.B.C.D	Modify IP address of custom application signature

\<6\> no iprange

- **Synopsis**

no iprange \<cr\>
- **Function Specification**

Clear IP range
- **Parameter Specification**

None

\<7\> protocol

- **Synopsis**

protocol {tcp \<port-range\>|udp \<port-range\>|icmp|other \<protocol-id\>}
- **Function Specification**

Modify protocol
- **Parameter Specification**

Name	Range	Mandatory	Description
tcp \<port-range\>	–	STRING	Port number must be 0–65535. Separate multiple ports or port ranges with a comma. Example: 10–20,100,300–500. 0 indicates all ports.

icmp	–	–	ICMP
udp <port-range>	–	STRING	Port number must be 0–65535. Separate multiple ports or port ranges with a comma. Example: 10–20,100,300–500. 0 indicates all ports.
other <protocol-id>	1–255	NUMBER	Protocol number must be 1–255.

<8> packet-direction

- Synopsis

packet-direction <packet-direction-type>
- Function Specification

Modify packet direction in a custom application signature (LAN->WAN: from internal network to external network; WAN->LAN: from external network to internal network; LAN<->WAN: bidirectional)
- Parameter Specification

Name	Range	Mandatory	Description
<packet-direction-type>	ENUM:[both: LAN<->WAN lan-wan: LAN->WAN wan-lan: WAN->LAN]	ENUM	Modify packet direction in a custom application signature (LAN->WAN: from internal network to external network; WAN->LAN: from external network to internal network; LAN<->WAN: bidirectional)

<9> disable

- Synopsis

disable <cr>
- Function Specification

Description
- Parameter Specification

Name	Range	Mandatory	Description
disable	–	–	Disable rule

<10> description

- Synopsis

description <description-value>
- Function Specification

Modify description of custom application signature
- Parameter Specification

Name	Range	Mandatory	Description

<description-value >	length:(0-95)	STRING	Modify description of custom application signature

<11> no description

- **Synopsis**

no description <cr>
- **Function Specification**

Clear description
- **Parameter Specification**

None

6) Sample

```
hostname(config)# app-signature test
hostname(config)# no app-signature test
hostname(config)# app-signature test appname Custom_tt1/Custom_aa1
hostname(config)# enable
hostname(config)# disable
hostname(config-app-signature-test)# description xxx
hostname(config-app-signature-test)# no description
hostname(config-app-signature-test)# setappname Custom_tt1/Custom_aa1
hostname(config-app-signature-test)# packet-direction wan-lan
hostname(config-app-signature-test)# protocol tcp portrange 1-5
hostname(config-app-signature-test)# iprange 1.1.1.1-1.1.1.2
hostname(config-app-signature-test)# domains www.baidu.com
hostname(config-app-signature-test)# no domains www.baidu.com
hostname(config-app-signature-test)# no iprange
```

2.3.1.6 no app-signature

1) Command Name

no app-signature

2) Synopsis

no app-signature <name>

3) Function Specification

Delete custom application signature. Predefined application signature cannot be deleted.

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	-	STRING	Delete custom application signature. Predefined application signature cannot be deleted.

5) Subcommand

None

6) Sample

hostname(config)# no app-signature test

2.3.1.7 application-type

1) Command Name

application-type

2) Synopsis

application-type <type-name>

3) Function Specification

Add or modify application category

4) Parameter Specification

Name	Range	Mandatory	Description
<type-name>	–	STRING	Add or modify application category

5) Subcommand

<1> add-application

- **Synopsis**

add-application <application-name>
- **Function Specification**

Add application
- **Parameter Specification**

Name	Range	Mandatory	Description
<application-name>	length:(1-95)	STRING	Add application

<2> description

- **Synopsis**

description <description-value>
- **Function Specification**

Modify application category description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Modify application category description

<3> no description

- **Synopsis**

no description <cr>
- **Function Specification**

Clear description
- **Parameter Specification**

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None

6) Sample

```
hostname(config)# application-type Custom_tt1
hostname(config-application-type-Custom_tt1)# description xxx
hostname(config-application-type-Custom_tt1)# add-application Custom_tt1/Custom_aa1
```

2.3.1.8 no application-type

1) Command Name

no application-type

2) Synopsis

no application-type [<type-name>]

3) Function Specification

Delete application category (can only delete custom application category)

4) Parameter Specification

Name	Range	Mandatory	Description
<type-name>	–	STRING	Delete application category (can only delete custom application category)

5) Subcommand

None

6) Sample

```
hostname(config)# no application-type Custom_tt1
```

2.3.1.9 application

1) Command Name

application

2) Synopsis

application <name>

3) Function Specification

Add or modify application signature (application name required)

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	Add or modify application signature (application name required)

5) Subcommand

<1> description

- **Synopsis**

description <description-value>

- **Function Specification**

Modify description

- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Modify description

<2> no description

- **Synopsis**

no description <cr>

- **Function Specification**

Clear description

- **Parameter Specification**

None

6) Sample

```
hostname(config)# application Custom_tt1/Custom_aa1
hostname(config-application-Custom_aa1)# description xxx
```

2.3.1.10 no application

1) Command Name

no application

2) Synopsis

no application <name>

3) Function Specification

Delete application (can only delete custom application)

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	Delete application (can only delete custom application)

5) Subcommand

None

6) Sample

```
hostname(config)# no application Custom_tt1/Custom_aa1
```

2.3.2 URL Category

2.3.2.1 show url-db

1) Command Name

show url-db

2) Synopsis

show url-db [query <url-value>] <info> <cr>

3) Function Specification

Return information about URL category database

4) Parameter Specification

Name	Range	Mandatory	Description
query <url-value>	length:(1-4096)	STRING	Look up URL category
info	-	-	Return information about URL category database

5) Subcommand

None

6) Sample

hostname(config)# show url-db query www.sangfor.com
hostname(config)# show url-db info

2.3.2.2 show url-category

1) Command Name

show url-category

2) Synopsis

show url-category [<name>] <cr>

3) Function Specification

View URL category database

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	View URL category database

5) Subcommand

None

6) Sample

```
hostname(config)# show url-category
hostname(config)# show url-category test
```

2.3.2.3 url-category

1) Command Name

url-category

2) Synopsis

url-category <name> <cr>

3) Function Specification

URL category database configuration

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	URL category database configuration

5) Subcommand

<1> urlItems

- **Synopsis**

urlItems <value> <cr>
- **Function Specification**

Add URL
- **Parameter Specification**

Name	Range	Mandatory	Description
<value>	length:(1-4096)	STRING	Add URL

<2> no urlItems

- **Synopsis**

no urlItems <value> <cr>
- **Function Specification**

Delete URL
- **Parameter Specification**

Name	Range	Mandatory	Description
<value>	length:(1-4096)	STRING	Delete URL

<3> keywords

- **Synopsis**

keywords <keywords-value> <cr>
- **Function Specification**

Add URL keyword
- **Parameter Specification**

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Name	Range	Mandatory	Description
<keywords-value>	length:(2-19)	STRING	Add URL keyword

<4> no keywords

- **Synopsis**

no keywords <cr>

- **Function Specification**

Delete URL keyword

- **Parameter Specification**

None

<5> description

- **Synopsis**

description <description-value> <cr>

- **Function Specification**

Add description

- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	–	STRING	Add description

6) Sample

```
hostname(config)# url-category test
hostname(config-url-category-test)# description thisIsTest
hostname(config-url-category-test)# urlItems www.baidu.com
hostname(config-url-category-test)# no urlItems www.baidu.com
hostname(config-url-category-test)# keywords hr
hostname(config-url-category-test)# no keywords
```

2.3.2.4 no url-category

1) Command Name

no url-category

2) Synopsis

no url-category <name> <cr>

3) Function Specification

Delete a URL category

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Delete URL category database configuration

5) Subcommand

None

6) Sample

hostname(config)# no url-category test

2.4 IP Location Database

2.4.1 show isp-ip

1) Command Name

show isp-ip

2) Synopsis

show isp-ip <ip-address>

3) Function Specification

ISP lookup

4) Parameter Specification

Name	Range	Mandatory	Description
<ip-address>	length:(1-95)	STRING	ISP lookup

5) Subcommand

None

6) Sample

hostname# show isp-ip 23.3.3.3

2.4.2 show ip-location

1) Command Name

show ip-location

2) Synopsis

show ip-location [<ipv4-address>] <cr>

3) Function Specification

Return IP location policy

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv4-address>	-	A.B.C.D Address format: A.B.C.D	IPv4 address or IP range

5) Subcommand

None

6) Sample

```
hostname# show ip-location
hostname# show ip-location 200.200.1.1
```

2.4.3 show board-country-list

1) Command Name

show board-country-list

2) Synopsis

show board-country-list [board <board-name>] <cr>

3) Function Specification

View countries/regions

4) Parameter Specification

Name	Range	Mandatory	Description
board <board-name>	length:(0-128)	STRING	Enter continent to view countries or regions in the continent

5) Subcommand

None

6) Sample

```
hostname# show board-country-list board Asia Pacific
hostname# show board-country-list
```

2.4.4 show isp

1) Command Name

show isp

2) Synopsis

show isp [<name>]

3) Function Specification

View ISP

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	View ISP

5) Subcommand

None

6) Sample

hostname# show isp
hostname# show isp testISP

2.4.5 ip-location

1) Command Name

ip-location

2) Synopsis

ip-location <ipv4-address> country-region <country-region-value> <cr>

3) Function Specification

Add a single IP location policy

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv4-address>	length:(0-35)	A.B.C.D/M Address format: A.B.C.D/M A.B.C.D/E.F.G.H Address format: A.B.C.D/E.F.G.H A.B.C.D-E.F.G.H Address format: A.B.C.D-E.F.G.H A.B.C.D Address format: A.B.C.D	IPv4 address or IP range
country-region <country-region-value>	length:(0-128)	STRING	Configure country or region in IP location policy

5) Subcommand

None

6) Sample

hostname(config)# ip-location 1.1.1.1 country-region Asia Pacific/Japan
hostname(config)# ip-location 1.1.2.0/24 country-region Asia Pacific/Singapore

2.4.6 no ip-location

1) Command Name

no ip-location

2) Synopsis

no ip-location <ipv4-address>

3) Function Specification

Delete a single IP location policy

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv4-address>	length:(0-35)	A.B.C.D/M Address format: A.B.C.D/M A.B.C.D/E.F.G.H Address format: A.B.C.D/E.F.G.H A.B.C.D-E.F.G.H Address format: A.B.C.D-E.F.G.H A.B.C.D Address format: A.B.C.D	IPv4 address or IP range

5) Subcommand

None

6) Sample

```
hostname(config)# no ip-location 1.1.1.1
hostname(config)# no ip-location 1.1.2.0/24
```

2.4.7 isp

1) Command Name

isp

2) Synopsis

isp <name>

3) Function Specification

Configure IP location database

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Configure IP location database

5) Subcommand

<1> whois

- Synopsis

whois <whois-value>
- Function Specification

Add WHOIS (number of WHOIS entries cannot exceed 5)
- Parameter Specification

Name	Range	Mandatory	Description
<whois-value>	length:(1-32)	STRING	Add WHOIS (number of WHOIS entries cannot exceed 5)

<2> no whois

- Synopsis

no whois <whois-value>
- Function Specification

Delete WHOIS
- Parameter Specification

Name	Range	Mandatory	Description
<whois-value>	length:(1-32)	STRING	Delete WHOIS

<3> ipentry

- Synopsis

ipentry <ip-address>
- Function Specification

Specify the destination host by IP address.
- Parameter Specification

Name	Range	Mandatory	Description

Name	Range	Mandatory	Description
<ip-address>	–	A.B.C.D Specify the destination host by IP address. A.B.C.D/M IP range: A.B.C.D/E.F.G.H A.B.C.D–A1.B1.C1.D1 IP range format: A.B.C.D–E.F.G.H A.B.C.D/A1.B1.C1.D1 IP range: A.B.C.D/E.F.G.H	Specify the destination host by IP address.

<4> no ipentry

- **Synopsis**

no ipentry <ip-address>
- **Function Specification**

Delete IP location
- **Parameter Specification**

Name	Range	Mandatory	Description
<ip-address>	–	STRING	Delete IP location

<5> rename

- **Synopsis**

rename <name-value>
- **Function Specification**

Modify ISP name
- **Parameter Specification**

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Modify ISP name

6) Sample

```
hostname(config)# isp testISP
hostname(config-isp-testISP)# ipentry 12.33.33.33-12.33.33.66
hostname(config-isp-testISP)# ipentry 12.33.32.0/24
hostname(config-isp-testISP)# ipentry 12.33.30.1
hostname(config-isp-testISP)# ipentry 12.33.29.0/255.255.255.0
hostname(config-isp-testISP)# whois test
hostname(config-isp-testISP)# rename testISP2
```

2.4.8 no isp

1) Command Name

no isp

2) Synopsis

no isp <name>

3) Function Specification

Delete IP location database

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Delete IP location database

5) Subcommand

None

6) Sample

hostname(config)# no isp testISP

2.5 Schedule

2.5.1 show single-schedule

1) Command Name

show single-schedule

2) Synopsis

show single-schedule [<schedule-name>]

3) Function Specification

View one-time schedule

4) Parameter Specification

Name	Range	Mandatory	Description
<schedule-name>	length:(1-95)	STRING	View one-time schedule

5) Subcommand

None

6) Sample

hostname# show single-schedule
hostname# show single-schedule testSingleSchedule

2.5.2 show schedule

1) Command Name

show schedule

2) Synopsis

show schedule [<name>]

3) Function Specification

View recurring schedule

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	View recurring schedule

5) Subcommand

None

6) Sample

```
hostname# show schedule
hostname# show schedule testleSchedule
```

2.5.3 schedule

1) Command Name

schedule

2) Synopsis

schedule <name>

3) Function Specification

Configure recurring schedule

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	Configure recurring schedule

5) Subcommand

<1> absolute

- **Synopsis**

absolute start <date-value> end <date-value>
- **Function Specification**

Configure start time and end time
- **Parameter Specification**

Name	Range	Mandatory	Description

end <date-value>	-	STRING	End time (Example: YYYY-MM-DD hh:mm:ss)
start <date-value>	-	STRING	Start time (Example: YYYY-MM-DD hh:mm:ss)

<2> no absolute

- Synopsis

no absolute <cr>
- Function Specification

Delete start time and end time
- Parameter Specification

None

<3> periodic

- Synopsis

periodic <[monday] [···] [sunday]> start <date-value> end <date-value>
- Function Specification

Configure schedule
- Parameter Specification

Name	Range	Mandatory	Description
<date-value>	-	STRING	End time/end time (Example: hh:mm:ss)

<4> no periodic

- Synopsis

no periodic <[monday] [···] [sunday]> start <date-value> end <date-value>
- Function Specification

Delete schedule
- Parameter Specification

Name	Range	Mandatory	Description
<date-value>	-	STRING	End time/end time (Example: hh:mm:ss)

<5> description

- Synopsis

description <description-value>
- Function Specification

Configure description
- Parameter Specification

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Configure description

<6> no description

- **Synopsis**

no description <cr>
- **Function Specification**

Clear description
- **Parameter Specification**

None

6) Sample

```
hostname(config)# schedule testSchedule
hostname(config-schedule-testSchedule)# description test
hostname(config-schedule-testSchedule)# absolute start "2020-01-01 10:00:00" end "2020-04-01 1
0:00:00"
hostname(config-schedule-testSchedule)# periodic monday start 09:00:00 end 18:00:00
hostname(config-schedule-testSchedule)# periodic friday saturday sunday start 09:00:00 end 18:00:
00
```

2.5.4 no schedule

1) Command Name

no schedule

2) Synopsis

no schedule <name>

3) Function Specification

Delete recurring schedule

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Delete recurring schedule

5) Subcommand

None

6) Sample

```
hostname(config)# no schedule testSchedule
```

2.5.5 single-schedule

1) Command Name

single-schedule

2) Synopsis

single-schedule <name>

3) Function Specification

Configure one-time schedule

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Configure one-time schedule

5) Subcommand

<1> description

- Synopsis

description <description-value>
- Function Specification

Configure description
- Parameter Specification

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Configure description

<2> no description

- Synopsis

no description<cr>
- Function Specification

Clear description
- Parameter Specification

Name	Range	Mandatory	Description
no description	-	-	Clear description

<3> absolute

- Synopsis

absolute start <date-value> end <date-value>
- Function Specification

Configure start time and end time
- Parameter Specification

Name	Range	Mandatory	Description
end <date-value>	-	STRING	End time (Example: YYYY-MM-DD hh:mm:ss)
start <date-value>	-	STRING	Start time (Example: YYYY-MM-DD hh:mm:ss)

6) Sample

```
hostname(config)# single-schedule testSingleSchedule
hostname(config-single-schedule-testSingleSchedule)# absolute start "2020-01-01 10:00:00" end "
2020-04-01 10:00:00"
hostname(config-single-schedule-testSingleSchedule)# description test
```

2.5.6 no single-schedule

1) Command Name

no single-schedule

2) Synopsis

no single-schedule <name>

3) Function Specification

Delete one-time schedule

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Delete one-time schedule

5) Subcommand

None

6) Sample

hostname(config)# no single-schedule testSingleSchedule

Chapter 3 Network

3.1 Interfaces

3.1.1 show interface

1) Command Name

show interface

2) Synopsis

show interface [<name> | type <type-value> | counter [<name>]] <cr>

3) Function Specification

View interface configurations

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	View interface configurations
type <type-value>	ENUM:[physicalif: Physical interface subif: Subinterface vlanif: VLAN interface channelif: Aggregate interface]	ENUM	Filter interface by type
counter [<name>]	–	STRING	View packet rate on interface

5) Subcommand

None

6) Sample

```
hostname(config)# show interface
hostname(config)# show interface eth3
hostname(config)# show interface type vlanif
hostname(config)# show interface counter
```

3.1.2 interface

1) Command Name

interface

2) Synopsis

interface <name>

3) Function Specification

Add or edit interface

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	ethY.X Name of newly added sub interface (X: 1–4094) veth.X Name of newly added VLAN interface (X: 1–4094) aggr.X Name of newly added aggregate interface (X: 1–4)	Interface name

5) Subcommand

<1> speed-duplex

- Synopsis

speed-duplex <speed-value> <type-value> <cr>
- Function Specification

Configure link mode
- Parameter Specification

Name	Range	Mandatory	Description
<type-value>	ENUM:[half: Half-duplex full: Full duplex]	ENUM	Configure duplex

Name	Range	Mandatory	Description
<speed-value>	ENUM:[10: 10 Mbps 100: 100 Mbps 1000: 1000 Mbps 10000: 10000 Mbps]	ENUM	Configure speed

<2> no speed-duplex

- **Synopsis**

no speed-duplex <cr>
- **Function Specification**

Set link mode to auto-negotiation
- **Parameter Specification**

None

<3> aggr-mode

- **Synopsis**

aggr-mode <mode-type-value>
- **Function Specification**

Configure aggregation mode
- **Parameter Specification**

Name	Range	Mandatory	Description
<mode-type-value>	ENUM:[static: Static link aggregation lacp: Dynamic link aggregation]	ENUM	Configure aggregation mode

<4> mtu

- **Synopsis**

mtu <mtu-value>
- **Function Specification**

Configure MTU
- **Parameter Specification**

Name	Range	Mandatory	Description
<mtu-value>	68-1796	NUMBER	Configure MTU

<5> no mtu

- **Synopsis**

no mtu <cr>
- **Function Specification**

Restore default MTU (1500)
- **Parameter Specification**

None

<6> bandwidth

- **Synopsis**

bandwidth {upstream | downstream} <bits-value>
- **Function Specification**

Configure link bandwidth
- **Parameter Specification**

Name	Range	Mandatory	Description
<bits-value>	–	–	Configure link bandwidth

<7> no bandwidth

- **Synopsis**

no bandwidth {upstream | downstream} <cr>
- **Function Specification**

Restore default link bandwidth
- **Parameter Specification**

Name	Range	Mandatory	Description
downstream	–	–	Restore default inbound bandwidth
upstream	–	–	Restore default outbound bandwidth

<8> zone

- **Synopsis**

zone <zone-name>
- **Function Specification**

Configure zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<9> no zone

- **Synopsis**

no zone <cr>
- **Function Specification**

Remove interface from zone
- **Parameter Specification**

None

<10> vlan

- **Synopsis**

vlan {access <access-value> | native <nativce-value> | trunk <trunk-value>}
- **Function Specification**

Configure layer 2 mode
- **Parameter Specification**

Name	Range	Mandatory	Description
trunk <trunk-value>	–	STRING	Trunk range: 1–4094 (Example: 1, 2, 3–10)
native <nativce-value>	0–4094	NUMBER	Configure trunk ID
access <access-value>	0–4094	NUMBER	Configure Access ID

<11> mac

- **Synopsis**

mac <mac-address>
- **Function Specification**

Configure MAC address
- **Parameter Specification**

Name	Range	Mandatory	Description
<mac-address>	–	AA:BB:CC :DD:EE:FF MAC address format	Configure MAC address

<12> no mac

- **Synopsis**

no mac <cr>
- **Function Specification**

Restore default MAC
- **Parameter Specification**

None

<13> pppoe

- **Synopsis**

pppoe bond <pppoe-name>
- **Function Specification**

Configure PPPoE
- **Parameter Specification**

Name	Range	Mandatory	Description
<pppoe-name>	–	STRING	PPPoE name

<14> no pppoe

- **Synopsis**

no pppoe bond <cr>
- **Function Specification**

Change IP assignment from PPPoE to static IP
- **Parameter Specification**

None

<15> description

- **Synopsis**

description <description-value>
- **Function Specification**

Interface description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Interface description

<16> no description

- **Synopsis**

no description <cr>
- **Function Specification**

Clear description
- **Parameter Specification**

None

<17> flow-stats

- **Synopsis**

flow-stats {enable | disable | ip-group <ipgroup-name>}
- **Function Specification**

Configure Traffic Statistics
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	-	-	Enable Traffic Statistics
ip-group <ipgroup-name>	-	STRING	Add address group
disable	-	-	Disable Traffic Statistics

<18> no flow-stats

- **Synopsis**

no flow-stats ip-group <ipgroup-name>
- **Function Specification**

Disable Traffic Statistics for specified address group
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	-	STRING	Address group name

<19> aggr-lacp

- **Synopsis**

aggr-lacp {hash-mode <hash-type-value> | negotiate-mode <negotiate-type-value>}
- **Function Specification**

Configure dynamic link aggregation
- **Parameter Specification**

Name	Range	Mandatory	Description
hash-mode <hash-type-value>	ENUM:[mac: Based on src/dst MAC addresses 2tuple: Based on src/dst IP and MAC address 3tuple: Based on src/dst IP, MAC address and port]	ENUM	Configure hash for dynamic link aggregation
negotiate-mode <negotiate-type-value>	ENUM:[initiative: Proactive passive: Passive]	ENUM	Configure negotiation mode for dynamic link aggregation

<20> aggr-static

- Synopsis

  aggr-static {mode <type-value> | loadbalance <type-value>} <cr>
- Function Specification

  Configure link aggregation manually
- Parameter Specification

Name	Range	Mandatory	Description
mode <type-value>	ENUM:[failover: Failover loadbalance: Load balancing]	ENUM	Configure static link aggregation
loadbalance <type-value>	ENUM:[roundrobin: Load balancing-RR l3hash: Load balancing-hash]	ENUM	Select load-balancing mode

<21> manage

- Synopsis

  manage {ssh | https | snmp | ping | update} {enable | disable} <cr>
- Function Specification

  Configure management service
- Parameter Specification

Name	Range	Mandatory	Description
https	–	–	Configure HTTPS

https enable	–	–	Enable HTTPS
https disable	–	–	Disable HTTPS
ping	–	–	Configure Ping
ping enable	–	–	Enable Ping
ping disable	–	–	Disable Ping
snmp	–	–	Configure SNMP
snmp enable	–	–	Enable SNMP
snmp disable	–	–	Disable SNMP
update	–	–	Configure system upgrade
update enable	–	–	Enable system upgrade via the interface
update disable	–	–	Disable system upgrade via the interface
ssh	–	–	Configure SSH
ssh enable	–	–	Enable SSH
ssh disable	–	–	Disable SSH

<22> shutdown

- **Synopsis**

  shutdown <cr>
- **Function Specification**

  Disable interface
- **Parameter Specification**

  None

<23> no shutdown

- **Synopsis**

  no shutdown <cr>
- **Function Specification**

  Enable interface
- **Parameter Specification**

  None

<24> ipv6

- **Synopsis**

  ipv6 address {<ipv6–address> | dhcp6} <cr>
- **Function Specification**

  Configure IPv6
- **Parameter Specification**

Name	Range	Mandatory	Description

		A:B:C:D::E/M Address format: A:B:C:D::E/M A:B:C:D::E-F:G:H:I::J/M Address format: A:B:C:D::E-F:G:H:I::J/M	
<ipv6-address>	-		IPv6 address
dhcp6	-	-	Return IP address via DHCP

<25> no ipv6

- **Synopsis**

  no ipv6 address {<ipv6-address> | dhcp6} <cr>
- **Function Specification**

  Delete IPv6 address
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipv6-address>	-	A:B:C:D::E/M Address format: A:B:C:D::E/M A:B:C:D::E-F:G:H:I::J/M Address format: A:B:C:D::E-F:G:H:I::J/M	IPv6 address
dhcp6	-	-	Cancle obtaining IP address via DHCP

<26> ip

- **Synopsis**

  ip address {<ip-address> | dhcp [setroute]} <cr>
- **Function Specification**

  IPv4 configuration
- **Parameter Specification**

Name	Range	Mandatory	Description

<ip-address>	–	A.B.C.D/M Address format: A.B.C.D/M A.B.C.D/E.F.G.H Address format: A.B.C.D/E.F.G.H A.B.C.D-A.B.C.E/M Address format: A.B.C.D-A.B.C.E/M A.B.C.D-A.B.C.E/E.F.G.H Address format: A.B.C.D-A.B.C.E/E.F.G.H	IPv4 address
dhcp	–	–	Return IP address via DHCP
dhcp [setroute]	–	–	Return default route

<27> no ip

- **Synopsis**

no ip address {<ip-address> | dhcp}
- **Function Specification**

Delete IPv4 address
- **Parameter Specification**

Name	Range	Mandatory	Description

<ip-address>	–	A.B.C.D/M Address format: A.B.C.D/M A.B.C.D/E.F.G.H Address format: A.B.C.D/E.F.G.H A.B.C.D–A.B.C.E/M Address format: A.B.C.D–A.B.C.E/M A.B.C.D–A.B.C.E/E.F.G.H Address format: A.B.C.D–A.B.C.E/E.F.G.H	Delete IPv4 address
dhcp	–	–	Cancle obtaining IP address via DHCP

<28> if-mode

- **Synopsis**

if-mode <mode-type-value>
- **Function Specification**

Configure interface type
- **Parameter Specification**

Name	Range	Mandatory	Description
<mode-type-value >	ENUM:[route: Layer 3 switch: Layer 2 virtualline: Virtual wire bypassmirror: Mirror]	ENUM	Configure interface type

<29> wan

- **Synopsis**

wan {enable|disable}
- **Function Specification**

Configure WAN attribute
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Set it to WAN interface

disable	–	–	Disable WAN

<30> aggregate

- **Synopsis**

aggregate <aggr-interface-name>

- **Function Specification**

Add this physical interface to specified aggregate interface

- **Parameter Specification**

Name	Range	Mandatory	Description
<aggr-interface-name>	–	STRING	Interface name

<31> no aggregate

- **Synopsis**

no aggregate <cr>

- **Function Specification**

Remove this physical interface from aggregate interface

- **Parameter Specification**

None

6) Sample

```
hostname(config)# interface eth3
hostname(config-interface-eth3)# if-mode route
hostname(config-interface-eth3)# if-description test
hostname(config-interface-eth3)# ip address 10.10.10.10/24
hostname(config-interface-eth3)# no ip address 10.10.10.10/24
hostname(config-interface-eth3)# mtu 1450
hostname(config-interface-eth3)# no mtu
hostname(config-interface-eth3)# no mac
hostname(config-interface-eth3)# wan enable
hostname(config-interface-eth3)# ipv6 address 2001::abc/64
hostname(config-interface-eth3)# no ipv6 address 2001::abc/64
hostname(config-interface-eth3)# no bandwidth upstream
hostname(config-interface-eth3)# no bandwidth downstream
hostname(config-interface-eth3)# manage ssh enable
hostname(config-interface-eth3)# manage https enable
hostname(config-interface-eth3)# manage ping enable
hostname(config-interface-eth3)# manage snmp disable
hostname(config-interface-eth3)# speed-duplex 1000 full
hostname(config-interface-eth3)# zone manager
hostname(config-interface-eth3)# no zone
hostname(config-interface-eth3)# pppoe bond eth3
```

3.1.3 no interface

1) Command Name

no interface

2) Synopsis

no interface <name>

3) Function Specification

Delete interface

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	Interface name

5) Subcommand

None

6) Sample

hostname(config)# no interface eth1.1

3.2 Zones

3.2.1 show zone

1) Command Name

show zone

2) Synopsis

show zone [<zone-name>]

3) Function Specification

View zone

4) Parameter Specification

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

5) Subcommand

None

6) Sample

hostname(config)# show zone
hostname(config)# show zone testZone

3.2.2 zone

1) Command Name

zone

2) Synopsis

zone <name>

3) Function Specification

Add or edit zone

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Zone name

5) Subcommand

<1> forward-type

- Synopsis

forward-type <type-value>
- Function Specification

Type
- Parameter Specification

Name	Range	Mandatory	Description
<type-value>	ENUM:[switch: Layer 2 route: Layer 3 virtual: Virtual wire]	ENUM	Type

<2> interfaces

- Synopsis

interfaces <interface-name>
- Function Specification

Add specified interface to zone
- Parameter Specification

Name	Range	Mandatory	Description
<interface-name>	-	STRING	Interface name

<3> no interfaces

- Synopsis

no interfaces <interface-name>
- Function Specification

Delete specified interface from zone
- Parameter Specification

Name	Range	Mandatory	Description
<interface-name>	-	STRING	Interface name

6) Sample

```
hostname(config)# zone test
hostname(config-zone-test)# forward-type route
hostname(config-zone-test)# interfaces eth1
hostname(config-zone-test)# interfaces eth2
hostname(config-zone-test)# no interfaces eth2
```

3.2.3 no zone

1) Command Name

no zone

2) Synopsis

no zone <name>

3) Function Specification

Delete zone

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Zone name

5) Subcommand

None

6) Sample

hostname(config)# no zone test

3.3 Routes

3.3.1 show pbr6

1) Command Name

show pbr6

2) Synopsis

show pbr6 [<pbr6-name>]

3) Function Specification

View IPv6 policy-based routes

4) Parameter Specification

Name	Range	Mandatory	Description
<pbr6-name>	length:(1-95)	STRING	IPv6 policy-based route name

5) Subcommand

None

6) Sample

hostname(config)# show pbr6
hostname(config)# show pbr6 test

3.3.2 show ip

1) Command Name

show ip

2) Synopsis

show ip {static-route-config | route {static|direct|ospf|rip|vpn|sslvpn|ibgp|ebgp} <cr>

3) Function Specification

View IPv4 route

4) Parameter Specification

Name	Range	Mandatory	Description
static-route-config	-	-	View IPv4 static route configurations
route sslvpn	-	-	View IPv4 SSLVPN
route rip	-	-	View IPv4 RIP
route ebgp	-	-	View IPv4 EBGP
route direct	-	-	View IPv4 direct route
route ospf	-	-	View IPv4 OSPF
route ibgp	-	-	View IPv4 IBGP
route vpn	-	-	View IPv4 VPN
route static	-	-	View IPv4 static route

5) Subcommand

None

6) Sample

```
hostname(config)# show ip static-route-config
hostname(config)# show ip route
hostname(config)# show ip route static
hostname(config)# show ip route direct
hostname(config)# show ip route ospf
hostname(config)# show ip route rip
hostname(config)# show ip route vpn
hostname(config)# show ip route sslvpn
hostname(config)# show ip route ibgp
hostname(config)# show ip route ebgp
```

3.3.3 show ipv6

1) Command Name

show ipv6

2) Synopsis

show ipv6 {static-route-config | route {static|direct|ospf}} <cr>

3) Function Specification

View IPv6 route

4) Parameter Specification

Name	Range	Mandatory	Description
static-route-config	-	-	View IPv6 static route
route direct	-	-	View IPv6 direct route
route ospf	-	-	View IPv6 OSPF
route static	-	-	View IPv6 static route

5) Subcommand

None

6) Sample

```
hostname(config)# show ipv6 static-route-config
hostname(config)# show ipv6 route
hostname(config)# show ipv6 route static
hostname(config)# show ipv6 route direct
hostname(config)# show ipv6 route ospf
```

3.3.4 show pbr

1) Command Name

show pbr

2) Synopsis

show pbr [<pbr-name>]

3) Function Specification

View IPv4 policy-based routes

4) Parameter Specification

Name	Range	Mandatory	Description
<pbr-name>	length:(1-95)	STRING	IPv4 policy-based route name

5) Subcommand

None

6) Sample

```
hostname(config)# show pbr
hostname(config)# show pbr test
```

3.3.5 ipv6

1) Command Name

　　ipv6

2) Synopsis

　　ipv6 route <ipv6–address–bits> <ipv6–address> [interface <interface–name>] [metric <metric–value>] [description <description–value>] [disable] <cr>

3) Function Specification

　　Configure IPv6 route

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv6–address>	–	A:B:C:D::E Next–hop IP	Next hop
<ipv6–address–bits>	–	A:B:C:D::E /M Destination IP and netmask	Destination IP/netmask
disable	–	–	Status (disabled)
metric <metric–value>	256–1023	NUMBER	Metric
interface <interface–name>	length:(1–48)	STRING	Interface
description <description–value>	length:(0–95)	STRING	Description

5) Subcommand

　　None

6) Sample

　　　hostname(config)# ipv6 route 2000::/64 2001:: interface eth0 metric 256 description ipv6staticroute di sable
　　　hostname(config)# ipv6 route 2000::/64 2001::
　　　hostname(config)# ipv6 route 2000::/64 2001:: disable

3.3.6 no ipv6

1) Command Name

　　no ipv6

2) Synopsis

　　no ipv6 route <ipv6–address–bits> <ipv6–address> [interface <interface–name>] [metric <metric–value>] [description <description–value>] [disable] <cr>

3) Function Specification

　　Delete IPv6 route

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv6-address>	–	A:B:C:D::E Next-hop IP	Next hop
<ipv6-address-bits>	–	A:B:C:D::E /M Destination IP and netmask	Destination IP/netmask
disable	–	–	Status (disabled)
metric <metric-value>	256-1023	NUMBER	Metric
interface <interface-name>	length:(1-48)	STRING	Interface
description <description-value>	length:(0-95)	STRING	Description

5) Subcommand

None

6) Sample

```
hostname(config)# ipv6 route 2000::/64 2001:: interface eth0 metric 256 description ipv6staticroute di
sable
hostname(config)# no ipv6 route 2000::/64 2001:: interface eth0 metric 256 description ipv6staticroute
 disable
hostname(config)# ipv6 route 2000::/64 2001::
hostname(config)# ipv6 route 2000::/64 2001:: disable
hostname(config)# no ipv6 route 2000::/64 2001::
```

3.3.7 ip

1) Command Name

ip

2) Synopsis

ip {route <ip-address-bits> <ip-address> [interface <interface-name>] [metric <metric-value>] [description <description-value>] [disable] | route-test {tcp|udp|icmp|other|all} <dst-ip <ip-address>> [dst-port <port-num>] [src-ip <ip-address>] [src-port <port-num>] [protocol-code <protocol-num>]} <cr>

3) Function Specification

Configure IPv4 route

4) Parameter Specification

Name	Range	Mandatory	Description
dst-ip <ip-address>	–	A.B.C.D Destination IP	Destination IP
dst-port <port-num>	1-65535	NUMBER	Destination port

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src-port <port-num>	1-65535	NUMBER	Source port or range
src-ip <ip-address>	-	A.B.C.D Source IP	Source IP
protocol-code <protocol-num>	0-255	NUMBER	Protocol number
<ip-address>	-	A.B.C.D Next-hop IP	Next hop
<ip-address-bits>	-	A.B.C.D/M Destinatio n IP and CIDR prefix length A.B.C.D/E. F.G.H Des tination IP and dotted decimal netmask	Destination IP/netmask
disable	-	-	Status (disabled)
metric <metric-value>	0-255	NUMBER	Metric
interface <interface-name>	length:(1-48)	STRING	Interface
description <descri ption-value>	length:(0-95)	STRING	Description

5) Subcommand

None

6) Sample

```
hostname(config)# ip route 192.168.1.0/24 192.168.2.1 interface eth0 metric 0 description ipv4staticrou
te disable
hostname(config)# ip route 192.168.1.0/24 192.168.2.1
hostname(config)# ip route 192.168.1.0/24 192.168.2.1 disable
hostname(config)# ip route-test tcp dst-ip 192.168.1.1
hostname(config)# ip route-test udp dst-ip 192.168.1.1
hostname(config)# ip route-test icmp dst-ip 192.168.1.1 src-ip 196.168.2.1
hostname(config)# ip route-test other protocol-code 1 dst-ip 192.168.1.1 src-ip 196.168.2.1
```

3.3.8 no ip

1) Command Name

no ip

2) Synopsis

no ip route <ip-address-bits> <ip-address> [interface <interface-name>] [metric <metric-value>] [description <description-value>] [disable] <cr>

3) Function Specification

Delete IPv4 route

4) Parameter Specification

Name	Range	Mandatory	Description
<ip-address>	–	A.B.C.D Next-hop IP	Next hop
<ip-address-bits>	–	A.B.C.D/M Destination IP and CIDR prefix length A.B.C.D/E.F.G.H Destination IP and dotted decimal netmask	Destination IP/netmask
disable	–	–	Status (disabled)
metric <metric-value>	0-255	NUMBER	Metric
interface <interface-name>	length:(1-48)	STRING	Interface
description <description-value>	length:(0-95)	STRING	Description

5) Subcommand

None

6) Sample

```
hostname(config)# ip route 192.168.1.0/24 192.168.2.1 interface eth0 metric 0 description ipv4staticroute disable
hostname(config)# no ip route 192.168.1.0/24 192.168.2.1 interface eth0 metric 0 description ipv4static route disable
hostname(config)# ip route 192.168.1.0/24 192.168.2.1
hostname(config)# ip route 192.168.1.0/24 192.168.2.1 disable
hostname(config)# no ip route 192.168.1.0/24 192.168.2.1
```

3.3.9 pbr6

1) Command Name

pbr6

2) Synopsis

pbr6 <name> [<type>] [{top|bottom|after <pbr6-name>|before <pbr6-name>}] <cr>

3) Function Specification

Create or configure IPv6 policy-based route

4) Parameter Specification

Name	Range	Mandatory	Description
<type>	ENUM:[src-address: Source-based route]	ENUM	Route type
bottom	–	–	Move the authentication policy to bottom
after <pbr6-name>	length:(1-95)	STRING	Move to below a specified policy
before <pbr6-name>	length:(1-95)	STRING	Move to above a specified policy
top	–	–	Move the authentication policy to top
<name>	length:(1-95)	STRING	Name

5) Subcommand

<1> enable

- Synopsis

enable <cr>
- Function Specification

Enable
- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable

<2> dst-ipgroup

- Synopsis

dst-ipgroup <ipgroup-name>
- Function Specification

Destination network object
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	–	STRING	Network object name

<3> no dst-ipgroup

- Synopsis

no dst-ipgroup <ipgroup-name>
- Function Specification

Remove reference of destination network object
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	–	STRING	Network object name

<4> src-ipgroup

- **Synopsis**

src-ipgroup <ipgroup-name>
- **Function Specification**

Source network object
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	–	STRING	Network object name

<5> no src-ipgroup

- **Synopsis**

no src-ipgroup <ipgroup-name>
- **Function Specification**

Remove reference of source network object
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	–	STRING	Network object name

<6> service

- **Synopsis**

service <service-name>
- **Function Specification**

Service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	–	STRING	Service name

<7> no service

- **Synopsis**

no service <service-name>
- **Function Specification**

Remove reference of service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	–	STRING	Service name

<8> out-if

- **Synopsis**

out-if {interface <interface-name>|gateway <ipv6-address>}
- **Function Specification**

Outbound interface
- **Parameter Specification**

Name	Range	Mandatory	Description
interface <interface-name>	–	STRING	Interface
gateway <ipv6-address>}	–	A:B:C:D::E Next-hop IP	Next hop

<9> no out-if

- **Synopsis**

no out-if {interface <interface-name>|gateway <ipv6-address>}}
- **Function Specification**

Delete outbound interface
- **Parameter Specification**

Name	Range	Mandatory	Description
interface <interface-name>	–	STRING	Interface
gateway <ipv6-address>	–	A:B:C:D::E Next-hop IP	Next hop

<10> dst-area

- **Synopsis**

dst-area <area-value>
- **Function Specification**

Destination country or region
- **Parameter Specification**

Name	Range	Mandatory	Description
<area-value>	–	STRING	Country/region name

<11> no dst-area

- **Synopsis**

no dst-area <area-value>
- **Function Specification**

Remove reference of destination country or region
- **Parameter Specification**

Name	Range	Mandatory	Description
<area-value>	–	STRING	Country/region name

<12> disable

- **Synopsis**

disable <cr>
- **Function Specification**

Disable
- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable

<13> rename

- **Synopsis**

rename <name> <cr>
- **Function Specification**

Rename policy-based route
- **Parameter Specification**

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Name

<14> application

- **Synopsis**

application <app-name>
- **Function Specification**

Application
- **Parameter Specification**

Name	Range	Mandatory	Description
<app-name>	–	STRING	Application name

<15> no application

- **Synopsis**

no application <app-name>
- **Function Specification**

Remove reference of application
- **Parameter Specification**

Name	Range	Mandatory	Description
<app-name>	–	STRING	Application name

<16> src-zone

- **Synopsis**

src-zone <zone-name>
- **Function Specification**

Source zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	–	STRING	Zone name

<17> no src-zone

- **Synopsis**

no src-zone <zone-name>
- **Function Specification**

Remove reference of source zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	–	STRING	Zone name

<18> schedule

- **Synopsis**

  schedule <schedule-name>
- **Function Specification**

  Schedule
- **Parameter Specification**

Name	Range	Mandatory	Description
<schedule-name>	–	STRING	Schedule name

<19> description

- **Synopsis**

  description <description-value>
- **Function Specification**

  Edit description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Description

<20> no description

- **Synopsis**

  no description <cr>
- **Function Specification**

  Clear description
- **Parameter Specification**

Name	Range	Mandatory	Description
no description	–	–	Description

6) Sample

```
hostname(config)# pbr6 test type src-address
hostname(config-pbr6-test)# enable
hostname(config-pbr6-test)# description ipv6PolicyRoute
hostname(config-pbr6-test)# schedule workday
hostname(config-pbr6-test)# src-zone manager
hostname(config-pbr6-test)# src-ipgroup all
hostname(config-pbr6-test)# dst-ipgroup all
hostname(config-pbr6-test)# dst-area china
hostname(config-pbr6-test)# service any
hostname(config-pbr6-test)# application all
hostname(config-pbr6-test)# out-if interface eth0 gateway 2000::1
hostname(config-pbr6-test)# out-if interface eth0
hostname(config-pbr6-test)# out-if gateway 2000::1
```

3.3.10 no pbr6

1) Command Name

  no pbr6

2) Synopsis

no pbr6 <name> <cr>

3) Function Specification

Delete IPv6 policy-based route

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Name

5) Subcommand

None

6) Sample

hostname(config)# no pbr6 test

3.3.11 pbr

1) Command Name

pbr

2) Synopsis

pbr <name> [type <type-value>] [top|bottom|after <pbr-name>|before <pbr-name>]

3) Function Specification

Add or configure IPv4 policy-based route

4) Parameter Specification

Name	Range	Mandatory	Description
type <type-value>	ENUM:[src-address: Source-based route mult-line: Link load-balancing route]	ENUM	Route type
bottom	–	–	Move the authentication policy to bottom
after <pbr-name>	length:(1-95)	STRING	Move to below a specified policy
before <pbr-name>	length:(1-95)	STRING	Move to above a specified policy
top	–	–	Move the authentication policy to top
<name>	length:(1-95)	STRING	Name

5) Subcommand

<1> enable

- Synopsis

enable <cr>
- Function Specification

Enable
- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable

<2> dst-ipgroup

- Synopsis

dst-ipgroup <ipgroup-name>
- Function Specification

Destination network object
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	–	STRING	Network object name

<3> no dst-ipgroup

- Synopsis

no dst-ipgroup <ipgroup-name>
- Function Specification

Remove reference of destination network object
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	–	STRING	Network object name

<4> src-ipgroup

- Synopsis

src-ipgroup <ipgroup-name>
- Function Specification

Source network object
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	–	STRING	Network object name

<5> no src-ipgroup

- Synopsis

no src-ipgroup <ipgroup-name>
- Function Specification

Remove reference of source network object
- Parameter Specification

Name	Range	Mandatory	Description

<ipgroup-name>	–	STRING	Network object name

<6> dst-isp

- Synopsis

dst-isp <isp-name>
- **Function Specification**

Destination ISP
- **Parameter Specification**

Name	Range	Mandatory	Description
<isp-name>	–	STRING	ISP name

<7> no dst-isp

- Synopsis

no dst-isp <isp-name>
- **Function Specification**

Remove reference of destination ISP
- **Parameter Specification**

Name	Range	Mandatory	Description
<isp-name>	–	STRING	ISP name

<8> rename

- Synopsis

rename <name-value>
- **Function Specification**

Rename policy-based route
- **Parameter Specification**

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Name

<9> lb-method

- Synopsis

lb-method <lb-method-value> <cr>
- **Function Specification**

Load-balancing method name
- **Parameter Specification**

Name	Range	Mandatory	Description

<lb-method-value>	ENUM:[poll: Round robin bandwidth: Bandwidth ratio round robin weighted-minimum-flow: Weighted least traffic priority-front-line: Prefer link at top]	ENUM	Load-balancing method

<10> no lb-method

- **Synopsis**

no lb-method <cr>
- **Function Specification**

Reset load-balancing method to Round robin
- **Parameter Specification**

None

<11> out-if

- **Synopsis**

out-if {interface <interface-name>|gateway <ip-address>}
- **Function Specification**

Outbound interface
- **Parameter Specification**

Name	Range	Mandatory	Description
interface <interface-name>	–	STRING	Interface
gateway <ip-address>	–	A.B.C.D Next-hop IP	Next hop

<12> no out-if

- **Synopsis**

no out-if {interface <interface-name>|gateway ip-address}
- **Function Specification**

Delete outbound interface
- **Parameter Specification**

Name	Range	Mandatory	Description
interface <interface-name>	–	STRING	Interface
gateway <ip-address>	–	A.B.C.D Next-hop IP	Next hop

<13> dst-area

- Synopsis

dst-area <area-value>
- Function Specification

Destination country/region
- Parameter Specification

Name	Range	Mandatory	Description
<area-value>	–	STRING	Country/region name

<14> no dst-area

- Synopsis

no dst-area <area-value>
- Function Specification

Remove reference of destination country/region
- Parameter Specification

Name	Range	Mandatory	Description
<area-value>	–	STRING	Country/region name

<15> service

- Synopsis

service <service-name>
- Function Specification

Associate with a service
- Parameter Specification

Name	Range	Mandatory	Description
<service-name>	–	STRING	Service name

<16> no service

- Synopsis

no service <service-name>
- Function Specification

Remove reference of service
- Parameter Specification

Name	Range	Mandatory	Description
<service-name>	–	STRING	Service name

<17> disable

- Synopsis

disable <cr>
- Function Specification

Disable
- Parameter Specification

Name	Range	Mandatory	Description
disable	–	–	Disable

<18> application

- **Synopsis**

application <app-name>
- **Function Specification**

Application
- **Parameter Specification**

Name	Range	Mandatory	Description
<app-name>	–	STRING	Application name

<19> no application

- **Synopsis**

no application <app-name>
- **Function Specification**

Remove reference of application
- **Parameter Specification**

Name	Range	Mandatory	Description
<app-name>	–	STRING	Application name

<20> src-zone

- **Synopsis**

src-zone <zone-name>
- **Function Specification**

Source zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	–	STRING	Zone name

<21> no src-zone

- **Synopsis**

no src-zone <zone-name>
- **Function Specification**

Remove reference of source zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	–	STRING	Zone name

<22> schedule

- **Synopsis**

schedule <schedule-name>
- **Function Specification**

Schedule
- **Parameter Specification**

Name	Range	Mandatory	Description
<schedule-name>	–	STRING	Schedule name

<23> description

- **Synopsis**

description <description-value>
- **Function Specification**

Edit description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Description

<24> no description

- **Synopsis**

no description <cr>
- **Function Specification**

Clear description
- **Parameter Specification**

None

6) Sample

```
hostname(config)# pbr test type src-address
hostname(config-pbr-test)# enable
hostname(config-pbr-test)# description ipv4PolicyRoute
hostname(config-pbr-test)# schedule workday
hostname(config-pbr-test)# src-zone manager
hostname(config-pbr-test)# src-ipgroup all
hostname(config-pbr-test)# dst-ipgroup all
hostname(config-pbr-test)# dst-isp all
hostname(config-pbr-test)# dst-area china
hostname(config-pbr-test)# service any
hostname(config-pbr-test)# application all
hostname(config-pbr-test)# out-if interface eth0 gateway 192.168.2.1
hostname(config-pbr-test)# out-if interface eth0
hostname(config-pbr-test)# out-if gateway 192.168.2.1
hostname(config-pbr-test)# lb-method poll
```

3.3.12 no pbr

1) Command Name

no pbr

2) Synopsis

no pbr <name>

3) Function Specification

Delete policy-based route

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Name

5) Subcommand

None

6) Sample

hostname(config)# no pbr test

3.3.13 move

1) Command Name

move

2) Synopsis

move {pbr|pbr6 <pbr−name>} {top|bottom|after <pbr−name>|before <pbr−name>}

3) Function Specification

Move policy

4) Parameter Specification

Name	Range	Mandatory	Description
<pbr−name>	length:(1−95)	STRING	Name
bottom	−	−	Move the authentication policy to bottom
after <pbr−name>	length:(1−95)	STRING	Move to below a specified policy
before <pbr−name>	length:(1−95)	STRING	Move to above a specified policy
top	−	−	Move the authentication policy to top

5) Subcommand

None

6) Sample

hostname(config)# move pbr prouteName top
hostname(config)# move pbr prouteName after otherName
hostname(config)# move pbr6 prouteName top
hostname(config)# move pbr6 prouteName after otherName

3.4 Virtual Wires

3.4.1 show virline

1) Command Name

show virline

2) Synopsis

show virline [<name>]

3) Function Specification

Return virtual wire

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	Return virtual wire

5) Subcommand

None

6) Sample

hostname(config)# show virline
hostname(config)# show virline test

3.4.2 virline

1) Command Name

virline

2) Synopsis

virline <name>

3) Function Specification

Edit virtual wire

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	Name

5) Subcommand

<1> description

- Synopsis

description <description-value>
- Function Specification

Description
- Parameter Specification

Name	Range	Mandatory	Description
<description-value>	length:(0–95)	STRING	Description

<2> interface-pair2

- Synopsis

interface-pair2 <interface-name>
- Function Specification

Interface pair 2
- **Parameter Specification**

Name	Range	Mandatory	Description
<interface-name>	–	STRING	Name of interface pair 2

<3> name

- **Synopsis**

name <name>
- **Function Specification**

Rename virtual wire
- **Parameter Specification**

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Name

<4> interface-pair1

- **Synopsis**

interface-pair1 <interface-name>
- **Function Specification**

Interface pair 1
- **Parameter Specification**

Name	Range	Mandatory	Description
<interface-name>	–	STRING	Name of interface pair 1

6) Sample

```
hostname(config)# virline test
hostname(config-virline-test)# interface-pair1 eth1
hostname(config-virline-test)# interface-pair2 eth2
hostname(config-virline-test)# description testDescription
```

3.4.3 no virline

1) Command Name

no virline

2) Synopsis

no virline <name>

3) Function Specification

Delete virtual wire

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Name

5) Subcommand

None

6) Sample

       hostname(config)# no virline test

3.5 PPPoE Interfaces

3.5.1 show pppoe

1) Command Name

    show pppoe

2) Synopsis

    show pppoe [<name>]

3) Function Specification

    Return PPPoE configurations

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	Return PPPoE configurations

5) Subcommand

    None

6) Sample

       hostname(config)# show pppoe
       hostname(config)# show pppoe eth1.1

3.5.2 show pppoe-status

1) Command Name

    show pppoe-status

2) Synopsis

    show pppoe-status <pppoe-name>

3) Function Specification

    Return PPPoE status

4) Parameter Specification

Name	Range	Mandatory	Description
<pppoe-name>	–	STRING	Return PPPoE status

5) Subcommand

    None

6) Sample

hostname(config)# show pppoe-status eth1

3.5.3 pppoe

1) Command Name

pppoe

2) Synopsis

pppoe <name>

3) Function Specification

Configure PPPoE

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	PPPoE name

5) Subcommand

<1> idle-timeout

- Synopsis

idle-timeout <timeout-num>
- Function Specification

Timeout (secs)
- Parameter Specification

Name	Range	Mandatory	Description
<timeout-num>	20-240	NUMBER	Timeout (secs)

<2> set-dns

- Synopsis

set-dns {enable | disable}
- Function Specification

Configure Taken as preferred
- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable Taken as preferred
disable	–	–	Disable Taken as preferred

<3> user

- Synopsis

user <user-value>
- Function Specification

Username
- Parameter Specification

Name	Range	Mandatory	Description
<user-value>	length:(0-95)	STRING	Username

<4> connect

- **Synopsis**

connect <connect-type-value> <cr>
- **Function Specification**

Status (connected/disconnected)
- **Parameter Specification**

Name	Range	Mandatory	Description
<connect-type-value>	ENUM:[linkon: Connect linkoff: Disconnected onstatus: Status (connected/disconnected)]	ENUM	Connected or disconnected

<5> password

- **Synopsis**

password <password-value>
- **Function Specification**

Password
- **Parameter Specification**

Name	Range	Mandatory	Description
<password-value>	length:(0-512)	STRING	Username and password

<6> auto-connect

- **Synopsis**

auto-connect {enable | disable}
- **Function Specification**

Enable Auto dial-up
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	-	-	Enable Auto dial-up
disable	-	-	Disable Auto dial-up

<7> lcp-echo-timeout

- **Synopsis**

lcp-echo-timeout <timeout-num>
- **Function Specification**

Handshake time (secs)
- **Parameter Specification**

Name	Range	Mandatory	Description
<timeout-num>	5-60	NUMBER	Handshake time (secs)

<8> lcp-echo-retry

- **Synopsis**

lcp-echo-retry <retry-num>
- **Function Specification**

PPPoE max attempts
- **Parameter Specification**

Name	Range	Mandatory	Description
<retry-num>	1-10	NUMBER	PPPoE max attempts

<9> set-route

- **Synopsis**

set-route {enable | disable}
- **Function Specification**

Configure Add default route
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Configure Add default route
disable	–	–	Do not configure Add default route

6) Sample

```
hostname(config)# pppoe eth1.1
hostname(config-pppoe-eth1.1)# user test1234
hostname(config-pppoe-eth1.1)# password test1234
```

3.5.4 no pppoe

1) Command Name

no pppoe

2) Synopsis

no pppoe <name>

3) Function Specification

Delete PPPoE configurations

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	–	STRING	PPPoE interface name

5) Subcommand

None

6) Sample

hostname(config)# no pppoe eth1.1

Chapter 4 Policies

4.1 NAT

4.1.1 show bnat

1) Command Name

show bnat

2) Synopsis

show bnat [<name>]

3) Function Specification

View bidirectional policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	View bidirectional NAT policy name

5) Subcommand

None

6) Sample

```
hostname(config)# show bnat
hostname(config)# show bnat xxx
```

4.1.2 show nat6

1) Command Name

show nat6

2) Synopsis

show nat6 <cr>

3) Function Specification

View NAT6 policy

4) Parameter Specification

None

5) Subcommand

None

6) Sample

> hostname(config)# show nat6

4.1.3 show nat64

1) Command Name
show nat64

2) Synopsis
show nat64 [<name>]

3) Function Specification
View NAT64 policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	NAT64 policy

5) Subcommand
None

6) Sample

> hostname(config)# show nat64
> hostname(config)# show nat64 xxx

4.1.4 show dnat

1) Command Name
show dnat

2) Synopsis
show dnat [<name>]

3) Function Specification
View DNAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Destination NAT

5) Subcommand
None

6) Sample

> hostname(config)# show dnat
> hostname(config)# show dnat xxx

4.1.5 show nat46

1) Command Name

show nat46

2) Synopsis

show nat46 [<nat-name>]

3) Function Specification

View NAT46 policy

4) Parameter Specification

Name	Range	Mandatory	Description
<nat-name>	length:(1-95)	STRING	NAT46 policy

5) Subcommand

None

6) Sample

```
hostname(config)# show nat46
hostname(config)# show nat46 xxx
```

4.1.6 show snat6

1) Command Name

show snat6

2) Synopsis

show snat6 [<snat6-name>]

3) Function Specification

View SNAT6 policy

4) Parameter Specification

Name	Range	Mandatory	Description
<snat6-name>	length:(1-95)	STRING	SNAT6 policy

5) Subcommand

None

6) Sample

```
hostname(config)# show snat6
hostname(config)# show snat6 xxx
```

4.1.7 show snat

1) Command Name

show snat

2) Synopsis

show snat [<nat-name>]

3) Function Specification

View SNAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
<nat-name>	–	STRING	SNAT policy

5) Subcommand

None

6) Sample

```
hostname(config)# show snat
hostname(config)# show snat xxx
```

4.1.8 show nat646

1) Command Name

show nat646

2) Synopsis

show nat646 <cr>

3) Function Specification

View NAT64 and NAT46 policies

4) Parameter Specification

None

5) Subcommand

None

6) Sample

```
hostname(config)# show nat646
```

4.1.9 show dnat6

1) Command Name

show dnat6

2) Synopsis

show dnat6 [<name>]

3) Function Specification

View DNAT6 policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	DNAT6 policy

5) Subcommand

None

6) Sample

```
hostname(config)# show dnat6
hostname(config)# show dnat6 xxx
```

4.1.10 show nat

1) Command Name

show nat

2) Synopsis

show nat <cr>

3) Function Specification

View NAT policy

4) Parameter Specification

None

5) Subcommand

None

6) Sample

```
hostname(config)# show nat
```

4.1.11 show dnsmap

1) Command Name

show dnsmap

2) Synopsis

show dnsmap <cr>

3) Function Specification

View DNS–mapping

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show dnsmap

4.1.12 dnat-rule

1) Command Name

dnat-rule

2) Synopsis

dnat-rule <name> [{before <nat-name>|after <nat-name>|top|bottom}]

3) Function Specification

Destination NAT

4) Parameter Specification

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	–	–	Move to top
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>
- **Function Specification**

Enable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable NAT policy

<2> src-ipgroups

- **Synopsis**

src-ipgroups <ipgroup-name>
- **Function Specification**

Add source address group, one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<3> no src-ipgroups

- **Synopsis**

no src-ipgroups [<ipgroup-name>]

- **Function Specification**

Delete source address group (all groups will be deleted if unspecified)

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<4> dst-ipgroups

- **Synopsis**

dst-ipgroups <ipgroup-name>

- **Function Specification**

Add destination address group one by one

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<5> no dst-ipgroups

- **Synopsis**

no dst-ipgroups [<ipgroup-name>]

- **Function Specification**

Delete destination address group (all groups will be deleted if unspecified)

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<6> service

- **Synopsis**

service <service-name>

- **Function Specification**

Configure service

- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<7> no service

- **Synopsis**

no service [<service-name>]

- **Function Specification**

Delete service (all services will be deleted if unspecified)

- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<8> src-zones

- **Synopsis**

src-zones <zone-name>
- **Function Specification**

Add source zone, one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<9> no src-zones

- **Synopsis**

no src-zones [<zone-name>]
- **Function Specification**

Delete source zone (all zones will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<10> transfer

- **Synopsis**

transfer {ip <ip-address> [port <port-num...>]|iprange <iprange-address> [port <port-num...>]|ipgroup <ipgroup-name> [port <port-num...>]|load-balance {enable|disable}|no-trans} <cr>
- **Function Specification**

Configure NAT. If not specified, port will not be translated by default.
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups
<port-num>	-	STRING	Port range, example: 66, 66-666. Number of ports or port ranges cannot exceed 128.
enable	-	-	Enable Load-balancing
disable	-	-	Disable Load-balancing
<iprange-address>	-	A.B.C.D-E.F.G.H Address format: A.B.C.D-E.F.G.H	Translate destination IP to IP range
no-trans	-	-	Untranslate destination IP
<ip-address>	-	A.B.C.D Address format: A.B.C.D	Translate destination IP to IP address

<11> move

- **Synopsis**

move {top|bottom|before <nat-name>|after <nat-name>}
- **Function Specification**

Move NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
bottom	–	–	Move to bottom
top	–	–	Move to top
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy

<12> disable

- **Synopsis**

<disable>
- **Function Specification**

Disable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable NAT policy

<13> schedule

- **Synopsis**

schedule <schedule-name>
- **Function Specification**

Set schedule
- **Parameter Specification**

Name	Range	Mandatory	Description
<schedule-name>	length:(1-95)	STRING	Schedule

<14> rename

- **Synopsis**

rename <name-value>
- **Function Specification**

Rename
- **Parameter Specification**

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Rename

<15> dst-ip

- **Synopsis**

dst-ip <ip-address>
- **Function Specification**

Add destination IP one by one, format: x.x.x.x
- **Parameter Specification**

Name	Range	Mandatory	Description
<ip-address>	–	A.B.C.D Address format: A.B.C.D	Add destination IP one by one, format: x.x.x.x

<16> no dst-ip

- **Synopsis**

no dst-ip [<ip-address>]
- **Function Specification**

Delete destination IP (all IPs will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<ip-address>	–	STRING	Policy name

<17> ignore-acl

- **Synopsis**

ignore-acl {enable|disable}
- **Function Specification**

Allow adding ACL policy automatically
- **Parameter Specification**

None

<18> description

- **Synopsis**

description <description-value>
- **Function Specification**

Description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0–95)	STRING	Description

6) Sample

```
hostname(config)# dnat-rule aa top
hostname(config-dnat-rule-aa)# enable
hostname(config-dnat-rule-aa)# disable
hostname(config-dnat-rule-aa)# description dnat
hostname(config-dnat-rule-aa)# schedule workday
hostname(config-dnat-rule-aa)# src-zones manager
hostname(config-dnat-rule-aa)# src-ipgroups all
hostname(config-dnat-rule-aa)# dst-ip 10.10.10.10
hostname(config-dnat-rule-aa)# dst-ipgroups all
hostname(config-dnat-rule-aa)# ignore-acl disable
hostname(config-dnat-rule-aa)# service any
hostname(config-dnat-rule-aa)# transfer iprange 20.20.20.20-20.20.20.255 port 500-800 1000-1100
hostname(config-dnat-rule-aa)# transfer ip 20.20.20.20
hostname(config-dnat-rule-aa)# transfer ipgroup all port 8888
hostname(config-dnat-rule-aa)# transfer no-trans
hostname(config-dnat-rule-aa)# transfer load-balance disable
```

4.1.13 no dnat-rule

1) Command Name

no dnat-rule

2) Synopsis

no dnat-rule <name>

3) Function Specification

Delete DNAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

hostname(config)# no dnat-rule aa

4.1.14 nat46-rule

1) Command Name

nat46-rule

2) Synopsis

nat46-rule <name> [{before <nat-name>|after <nat-name>|top|bottom}]

3) Function Specification

NAT46 policy (IPv4 to IPv6)

4) Parameter Specification

Name	Range	Mandatory	Description
bottom	-	-	Move to bottom
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	-	-	Move to top
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- Synopsis

enable <cr>
- Function Specification

Enable NAT policy
- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable NAT policy

<2> transfer-dst

- Synopsis

transfer-dst ipv6 <ipv6-address> [port <port-num>]
- Function Specification

Configure DNAT
- Parameter Specification

Name	Range	Mandatory	Description
<port-num>	–	STRING	Port range, example: 66, 66-666
<ipv6-address>	–	A:B:C:D::E/M Address format: A:B:C:D::E/M	Configure destination IPv6

<3> service

- Synopsis

service <service-name>
- Function Specification

Configure service
- Parameter Specification

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<4> no service

- Synopsis

no service [<service-name>] <cr>
- Function Specification

Delete service (all services will be deleted if unspecified)
- Parameter Specification

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<5> src-zones

- **Synopsis**

src-zones <zone-name>
- **Function Specification**

Add source zone one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<6> no src-zones

- **Synopsis**

no src-zones [<zone-name>]
- **Function Specification**

Delete source zone (all source zones will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<7> transfer-src

- **Synopsis**

transfer-src {iprange <ipv6range-address>|ipv6 <ipv6-address>}
- **Function Specification**

Configure SNAT
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipv6-address>	–	A:B:C:D::E Address format: A:B:C:D::E	Translate source address to specified IPv6 address
<ipv6range-address>	–	A:B:C:D::E -F:G:H:I::J Address format: A:B:C:D::E-F:G:H:I::J	Translate source address to IPv6 address range

<8> move

- **Synopsis**

move {top|bottom|before <nat-name>|after <nat-name>}
- **Function Specification**

Move NAT46 policy
- **Parameter Specification**

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy

before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	-	-	Move to top

<9> disable

- Synopsis

<disable>

- Function Specification

Disable NAT policy

- Parameter Specification

Name	Range	Mandatory	Description
disable	-	-	Disable NAT policy

<10> src-ipgroups

- Synopsis

src-ipgroups <ipgroup-name>

- Function Specification

Add source address group one by one

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<11> no src-ipgroups

- Synopsis

no src-ipgroups [<ipgroup-name>]

- Function Specification

Delete source address group (all groups will be deleted if unspecified)

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<12> rename

- Synopsis

rename <name-value>

- Function Specification

Rename

- Parameter Specification

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Rename

<13> dst-ip

- Synopsis

dst-ip <ip-address>

- Function Specification

Configure destination IP

- Parameter Specification

Name	Range	Mandatory	Description
<ip-address>	–	A.B.C.D/M Address format: A.B.C.D/M	Configure destination IP

<14> ignore-acl

- **Synopsis**

ignore-acl {enable|disable}
- **Function Specification**

Whether to allow adding ACL policy automatically
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Allow adding ACL policy automatically
disable	–	–	Does not allow adding ACL policy automatically

<15> description

- **Synopsis**

description <description-value>
- **Function Specification**

Description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Description

6) Sample

```
hostname(config)# nat46-rule aa top
hostname(config-nat46-rule-aa)# enable
hostname(config-nat46-rule-aa)# disable
hostname(config-nat46-rule-aa)# description nat46
hostname(config-nat46-rule-aa)# src-zones manager
hostname(config-nat46-rule-aa)# ignore-acl disable
hostname(config-nat46-rule-aa)# src-ipgroups all
hostname(config-nat46-rule-aa)# dst-ip 10.10.10.0/24
hostname(config-nat46-rule-aa)# service any
hostname(config-nat46-rule-aa)# transfer-src ipv6 2000::1
hostname(config-nat46-rule-aa)# transfer-src iprange 2000::1-2000::100
hostname(config-nat46-rule-aa)# transfer-dst ipv6 3000::/64
```

4.1.15 no nat46-rule

1) Command Name

no nat46-rule

2) Synopsis

no nat46-rule <name>

3) Function Specification

Delete NAT46 policy (IPv4 to IPv6)

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

hostname(config)# no nat46-rule aa

4.1.16 snat-rule

1) Command Name

snat-rule

2) Synopsis

snat-rule <name> [{before <nat-mame>|after <nat-name>|top|bottom}]

3) Function Specification

SNAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
bottom	-	-	Move to bottom
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	-	-	Move to top
name <name-value>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>
- **Function Specification**

Enable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description

| enable | – | – | Enable NAT policy |

<2> src-ipgroups

- Synopsis

src-ipgroups <ipgroup-name>
- Function Specification

Add source address group, one by one
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<3> no src-ipgroups

- Synopsis

no src-ipgroups [<ipgroup-name>]
- Function Specification

Delete source address group (all groups will be deleted if unspecified)
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<4> dst-ipgroups

- Synopsis

dst-ipgroups <ipgroup-name>
- Function Specification

Add destination address group one by one
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<5> no dst-ipgroups

- Synopsis

no dst-ipgroups [<ipgroup-name>]
- Function Specification

Delete destination address group (all groups will be deleted if unspecified)
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<6> service

- Synopsis

service <service-name>
- Function Specification

Configure service
- Parameter Specification

Name	Range	Mandatory	Description

| <service-name> | length:(1-95) | STRING | Service name |

<7> no service

- Synopsis

no service [<service-name>]

- Function Specification

Delete service (all services will be deleted if unspecified)

- Parameter Specification

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<8> src-zones

- Synopsis

src-zones <zone-name>

- Function Specification

Add source zone, one by one

- Parameter Specification

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<9> no src-zones

- Synopsis

no src-zones [<zone-name>]

- Function Specification

Delete source zone (all zones will be deleted if unspecified)

- Parameter Specification

Name	Range	Mandatory	Description
<zone-name>	-	STRING	Zone name

<10> transfer

- Synopsis

transfer {egress-interface|iprange <iprange-address> [static|dynamic]|ip <ip-address>|ipgroup <ipgroup-name>|no-trans}

- Function Specification

Configure NAT. If not specified, port will not be translated by default.

- Parameter Specification

Name	Range	Mandatory	Description
egress-interface	-	-	Translate source IP to outbound interface
no-trans	-	-	Untranslate source IP
{static | dynamic}	ENUM:[static: Static NAT dynamic: Dynamic NAT]	ENUM	NAT mode, including static and dynamic

<iprange-address>	–	A.B.C.D-E.F.G.H Address format: A.B.C.D-E.F.G.H	Configure IP range
<ip-address>	–	A.B.C.D Address format: A.B.C.D	Translate source IP to IP address
<ipgroup-name>	length:(1-95)	STRING	Translate source IP to address group

<11> move

- **Synopsis**

move {top|bottom|before <nat-name>|after <nat-name>}
- **Function Specification**

Move NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	–	–	Move to top

<12> dst-if

- **Synopsis**

dst-if <interface-name>
- **Function Specification**

Configure destination interface
- **Parameter Specification**

Name	Range	Mandatory	Description
<interface-name>	–	STRING	Configure destination interface

<13> disable

- **Synopsis**

<disable>
- **Function Specification**

Disable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable NAT policy

<14> dst-zones

- **Synopsis**

dst-zones <zone-name>
- **Function Specification**

Add destination zone one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<15> no dst-zones

- **Synopsis**

no dst-zones [<zone-name>]
- **Function Specification**

Delete destination zone (all zones will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<16> rename

- **Synopsis**

rename <name-value>
- **Function Specification**

Rename
- **Parameter Specification**

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Rename

<17> schedule

- **Synopsis**

schedule <schedule-name>
- **Function Specification**

Set schedule
- **Parameter Specification**

Name	Range	Mandatory	Description
<schedule-name>	length:(1-95)	STRING	Schedule

<18> description

- **Synopsis**

description <description-value>
- **Function Specification**

Description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Description

6) Sample

```
hostname(config)# snat-rule aa top
hostname(config-snat-rule-aa)# enable
hostname(config-snat-rule-aa)# disable
hostname(config-snat-rule-aa)# description snat
hostname(config-snat-rule-aa)# schedule workday
hostname(config-snat-rule-aa)# src-zones manager
hostname(config-snat-rule-aa)# src-ipgroups all
hostname(config-snat-rule-aa)# dst-if eth0
hostname(config-snat-rule-aa)# dst-zones manager
hostname(config-snat-rule-aa)# dst-ipgroups all
hostname(config-snat-rule-aa)# service any
hostname(config-snat-rule-aa)# transfer egress-interface
hostname(config-snat-rule-aa)# transfer iprange 10.10.10.10-10.10.10.255 static
hostname(config-snat-rule-aa)# transfer ip 10.10.10.10
hostname(config-snat-rule-aa)# transfer ipgroup all
hostname(config-snat-rule-aa)# transfer no-trans
```

4.1.17 no snat-rule

1) Command Name

no snat-rule

2) Synopsis

no snat-rule <name>

3) Function Specification

Delete IPv4 source NAT

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

```
hostname(config)# no snat-rule aa
```

4.1.18 dnat6-rule

1) Command Name

dnat6-rule

2) Synopsis

dnat6-rule <name> [{before <nat-name>|after <nat-name>|top|bottom}]

3) Function Specification

IPv6 DNAT

4) Parameter Specification

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	–	–	Move to top
<name>	length:(1-95)	STRING	Rule name

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>
- **Function Specification**

Enable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable NAT policy

<2> dst-ipv6

- **Synopsis**

dst-ipv6 <ipv6-address>
- **Function Specification**

Configure destination IPv6 address
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipv6-address>	–	A:B:C:D::E /M Address format: A: B:C:D::E/ M	Configure destination IPv6 address

<3> rename

- **Synopsis**

rename <name-value>
- **Function Specification**

Rename
- **Parameter Specification**

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Rename

<4> transfer-dst

- **Synopsis**

transfer-dst <ipv6-address>

- **Function Specification**

Configure transferred IPv6 address

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipv6-address>	–	A:B:C:D::E/M Address format: A:B:C:D::E/M	Configure transferred IPv6 address

<5> move

- **Synopsis**

move {before <nat-name>|after <nat-name>|top|bottom}

- **Function Specification**

Move NAT6 policy

- **Parameter Specification**

Name	Range	Mandatory	Description
bottom	–	–	Move to top
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	–	–	Move to top

<6> disable

- **Synopsis**

disable <cr>

- **Function Specification**

Disable NAT policy

- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable NAT policy

<7> src-zones

- **Synopsis**

src-zones <zone-name>

- **Function Specification**

Add source zone one by one

- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<8> no src-zones

- **Synopsis**

no src-zones [<zone-name>]
- **Function Specification**

Delete source zone (all source zones will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<9> description

- **Synopsis**

description <description-value>
- **Function Specification**

Description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Description

6) Sample

```
hostname(config)# dnat6-rule aa top
hostname(config-dnat6-aa)# enable
hostname(config-dnat6-aa)# disable
hostname(config-dnat6-aa)# description dnat6
hostname(config-dnat6-aa)# src-zones manager
hostname(config-dnat6-aa)# dst-ipv6 2000::/64
hostname(config-dnat6-aa)# transfer-dst 3000::/64
```

4.1.19 no dnat6-rule

1) Command Name

no dnat6-rule

2) Synopsis

no dnat6-rule <name>

3) Function Specification

Delete IPv6 DNAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

> hostname(config)# no dnat6-rule aa

4.1.20 bnat-rule

1) Command Name

bnat-rule

2) Synopsis

bnat-rule <name> [{before <nat-name>|after <nat-name>|top|bottom}]

3) Function Specification

Bidirectional NAT

4) Parameter Specification

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy
top	–	–	Move to top
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- Synopsis

enable <cr>
- Function Specification

Enable NAT policy
- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable NAT policy

<2> src-ipgroups

- Synopsis

src-ipgroups <ipgroup-name>
- Function Specification

Add source address group, one by one
- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<3> no src-ipgroups

- **Synopsis**

no src-ipgroups [<ipgroup-name>]
- **Function Specification**

Delete source address group (all groups will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<4> dst-ipgroups

- **Synopsis**

dst-ipgroups <ipgroup-name>
- **Function Specification**

Add destination address group one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<5> no dst-ipgroups

- **Synopsis**

no dst-ipgroups [<ipgroup-name>]
- **Function Specification**

Delete destination address group (all groups will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<6> service

- **Synopsis**

service <service-name>
- **Function Specification**

Configure service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<7> no service

- **Synopsis**

no service [<service-name>]
- **Function Specification**

Delete service (all services will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<8> src-zones

- **Synopsis**

src-zones <zone-name>

- **Function Specification**

Add source zone, one by one

- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<9> no src-zones

- **Synopsis**

no src-zones [<zone-name>]

- **Function Specification**

Delete source zone (all zones will be deleted if unspecified)

- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<10> transfer-src

- **Synopsis**

transfer-src {egress-interface|iprange <iprange-address> [static|dynamic]|ip <ip-address>|ipgroup <ipgroup-name>|no-trans}

- **Function Specification**

Configure NAT

- **Parameter Specification**

Name	Range	Mandatory	Description
egress-interface	–	–	Translate source IP to outbound interface
no-trans	–	–	Untranslate source IP
{dynamic | static}	ENUM:[static: Static NAT dynamic: Dynamic NAT]	ENUM	NAT mode, including static and dynamic
<iprange-address>	–	A.B.C.D-E.F.G.H Address format: A.B.C.D-E.F.G.H	Configure IP range
<ip-address>	–	A.B.C.D Address format: A.B.C.D	Translate source IP to IP address
<ipgroup-name>	length:(1-95)	STRING	Translate source IP to address group

<11> move

- **Synopsis**

  move {top|bottom|before <nat-name>|after <nat-name>}
- **Function Specification**

  Move NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
after <nat-name>	length:(1-95)	STRING	Move to below a specified policy
bottom	-	-	Move to bottom
top	-	-	Move to top
before <nat-name>	length:(1-95)	STRING	Move to above a specified policy

<12> disable

- **Synopsis**

  <disable>
- **Function Specification**

  Disable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
disable	-	-	Disable NAT policy

<13> schedule

- **Synopsis**

  schedule <schedule-name>
- **Function Specification**

  Set schedule
- **Parameter Specification**

Name	Range	Mandatory	Description
<schedule-name>	length:(1-95)	STRING	Schedule

<14> rename

- **Synopsis**

  rename <name-value>
- **Function Specification**

  Rename
- **Parameter Specification**

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Rename

<15> dst-ip

- **Synopsis**

  dst-ip <ip-address>
- **Function Specification**

Add destination IP one by one, format: x.x.x.x
- **Parameter Specification**

Name	Range	Mandatory	Description
<ip-address>	–	A.B.C.D Address format: A.B.C.D	Add destination IP one by one, format: x.x.x.x

<16> no dst-ip

- **Synopsis**

no dst-ip [<ip-address>]
- **Function Specification**

Delete destination IP (all IPs will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<ip-address>	–	STRING	Policy name

<17> transfer-dst

- **Synopsis**

transfer-dst {ip <ip-address> [port <port-num...>]|iprange <iprange-address> [port <port-num...>]|ipgroup <ipgroup-name> [port <port-num...>]|load-balance {enable|disable}|no-trans} <cr>
- **Function Specification**

Configure NAT
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups
<port-num>	–	STRING	Port range, example: 66, 66-666. Number of ports or port ranges cannot exceed 128.
enable	–	–	Enable Load-balancing
disable	–	–	Disable Load-balancing
<iprange-address>	–	A.B.C.D-E.F.G.H Address format: A.B.C.D-E.F.G.H	Translate destination IP to IP range
no-trans	–	–	Untranslate destination IP
<ip-address>	–	A.B.C.D Address format: A.B.C.D	Translate destination IP to IP address

<18> ignore-acl

- **Synopsis**

ignore-acl {enable|disable}
- **Function Specification**

Allow adding ACL policy automatically
- **Parameter Specification**

None

<19> description

- **Synopsis**

description <description-value>
- **Function Specification**

Description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value >	length:(0-95)	STRING	Description

6) Sample

```
hostname(config)# bnat-rule aa top
hostname(config-bnat-rule-aa)# enable
hostname(config-bnat-rule-aa)# disable
hostname(config-bnat-rule-aa)# description bnat
hostname(config-bnat-rule-aa)# schedule workday
hostname(config-bnat-rule-aa)# src-zones manager
hostname(config-bnat-rule-aa)# src-ipgroups all
hostname(config-bnat-rule-aa)# dst-ip 30.30.30.30
hostname(config-bnat-rule-aa)# dst-ipgroups all
hostname(config-bnat-rule-aa)# ignore-acl enable
hostname(config-bnat-rule-aa)# service any
hostname(config-bnat-rule-aa)# transfer-dst iprange 20.20.20.20-20.20.20.255 port 100-200 300-
400
hostname(config-bnat-rule-aa)# transfer-dst ip 20.20.20.20 port 200-300 500-600
hostname(config-bnat-rule-aa)# transfer-dst ipgroup all port 500-600 800-1000
hostname(config-bnat-rule-aa)# transfer-dst no-trans
hostname(config-bnat-rule-aa)# transfer-dst load-balance enable
hostname(config-bnat-rule-aa)# transfer-src egress-interface
hostname(config-bnat-rule-aa)# transfer-src iprange 10.10.10.10-10.10.10.255 dynamic
hostname(config-bnat-rule-aa)# transfer-src ip 10.10.10.10
hostname(config-bnat-rule-aa)# transfer-src ipgroup all
hostname(config-bnat-rule-aa)# transfer-src no-trans
```

4.1.21 no bnat-rule

1) Command Name

no bnat-rule

2) Synopsis

no bnat-rule <name>

3) Function Specification

Delete IPv4 bidirectional NAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

hostname(config)# no bnat-rule aa

4.1.22 dnsmap

1) Command Name

dnsmap

2) Synopsis

dnsmap internet-ip <ip-address> internal-ip <ip-address> domains
<domain-value>

3) Function Specification

Add DNS-mapping

4) Parameter Specification

Name	Range	Mandatory	Description
internal-ip <ip-address>	-	A.B.C.D Address format: A.B.C.D	IPv4 address
domains <domain-value>	length:(1-4095)	STRING	DNS-mapping domain name restrictions
internet-ip <ip-address>	-	A.B.C.D Address format: A.B.C.D	IPv4 address

5) Subcommand

None

6) Sample

hostname(config)# dnsmap internet-ip 1.1.1.1 internal-ip 2.2.2.2 domains www.sangfor.com www.google.com

4.1.23 no dnsmap

1) Command Name

no dnsmap

2) Synopsis

no dnsmap internet-ip <ip-address> internal-ip <ip-address>

3) Function Specification

Delete DNS-mapping

4) Parameter Specification

Name	Range	Mandatory	Description
internal-ip <ip-address>	-	A.B.C.D Address format: A.B.C.D	IPv4 address
internet-ip <ip-address>	-	A.B.C.D Address format: A.B.C.D	IPv4 address

5) Subcommand

None

6) Sample

hostname(config)# no dnsmap internet-ip 1.1.1.1 internal-ip 2.2.2.2

4.1.24 snat6-rule

1) Command Name

snat6-rule

2) Synopsis

snat6-rule <name> [{before <nat6-name>|after <nat6-name>|top|bottom}]

3) Function Specification

IPv6 source NAT

4) Parameter Specification

Name	Range	Mandatory	Description
bottom	-	-	Move to bottom
after <nat6-name>	length:(1-95)	STRING	Move to below a specified policy
before <nat6-name>	length:(1-95)	STRING	Move to above a specified policy
top	-	-	Move to top
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>
- **Function Specification**

Enable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable NAT policy

<2> rename

- **Synopsis**

rename <name>
- **Function Specification**

Rename
- **Parameter Specification**

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	Rename

<3> src-zones

- **Synopsis**

src-zones <zone-name>
- **Function Specification**

Add source zone one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1–95)	STRING	Zone name

<4> no src-zones

- **Synopsis**

no src-zones <zone-name>
- **Function Specification**

Delete source zone (all source zones will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1–95)	STRING	Zone name

<5> transfer-src

- **Synopsis**

transfer-src <ipv6-address>
- **Function Specification**

Configure destination IPv6
- **Parameter Specification**

Name	Range	Mandatory	Description

Name	Range	Mandatory	Description
<ipv6-address>	–	A:B:C:D::E/M Address format: A:B:C:D::E/M	Configure destination IPv6

<6> dst-zones

- **Synopsis**

dst-zones <zone-name>
- **Function Specification**

Add destination zone one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1–95)	STRING	Zone name

<7> no dst-zones

- **Synopsis**

no dst-zones <zone-name>
- **Function Specification**

Delete destination zone (all destination zones will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1–95)	STRING	Zone name

<8> src-ipv6

- **Synopsis**

src-ipv6 <ipv6-address>
- **Function Specification**

Configure source IPv6 address
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipv6-address>	–	A:B:C:D::E/M Address format: A:B:C:D::E/M	Configure source IPv6 address

<9> move

- **Synopsis**

move {before <nat6-name>|after <nat6-name>|top|bottom}
- **Function Specification**

Move NAT6 policy
- **Parameter Specification**

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom

<nat6-name>	length:(1-95)	STRING	Move to below a specified policy
top	–	–	Move to top

<10> disable

- **Synopsis**

<disable>
- **Function Specification**

Disable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable NAT policy

<11> description

- **Synopsis**

description <description-value>
- **Function Specification**

Description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Description

6) Sample

```
hostname(config)# snat6-rule aa top
hostname(config-snat6-aa)# enable
hostname(config-snat6-aa)# disable
hostname(config-snat6-aa)# description snat6
hostname(config-snat6-aa)# src-zones manager
hostname(config-snat6-aa)# no src-zones manager
hostname(config-snat6-aa)# no src-zones
hostname(config-snat6-aa)# src-ipv6 2000::/64
hostname(config-snat6-aa)# dst-zones manager
hostname(config-snat6-aa)# transfer-src 3000::/64
```

4.1.25 no snat6-rule

1) Command Name

no snat6-rule

2) Synopsis

no snat6-rule <name>

3) Function Specification

Delete IPv6 SNAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

hostname(config)# no snat6-rule aa

4.1.26 nat64-rule

1) Command Name

nat64-rule

2) Synopsis

nat46-rule <name> [{before <nat-name>|after <nat-name>|top|bottom}]

3) Function Specification

NAT64 policy (IPv6 to IPv4)

4) Parameter Specification

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <nat-name>	length:(1–95)	STRING	Move to below a specified policy
before <nat-name>	length:(1–95)	STRING	Move to above a specified policy
top	–	–	Move to top
<name>	length:(1–95)	STRING	Policy name

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>
- **Function Specification**

Enable NAT policy
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable NAT policy

<2> transfer-dst

- **Synopsis**

transfer-dst ip <ip-address> [port <port-num>]
- **Function Specification**

Configure DNAT
- **Parameter Specification**

Name	Range	Mandatory	Description

<ip-address>	–	A.B.C.D/M Address format: A.B.C.D/M	Configure destination IP
<port-num>	–	STRING	Port range, example: 66, 66-666

<3> service

- **Synopsis**

service <service-name>
- **Function Specification**

Configure service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<4> no service

- **Synopsis**

no service [<service-name>]
- **Function Specification**

Delete service (all services will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<5> src-zones

- **Synopsis**

src-zones <zone-name>
- **Function Specification**

Add source zone one by one
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<6> no src-zones

- **Synopsis**

no src-zones [<zone-name>]
- **Function Specification**

Delete source zone (all source zones will be deleted if unspecified)
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<7> transfer-src

- **Synopsis**

transfer-src {iprange <iprange-address>|ip <ip-address>}
- **Function Specification**

Configure NAT
- **Parameter Specification**

Name	Range	Mandatory	Description
<ip-address>	–	A.B.C.D Address format: A.B.C.D	Translate source address to specified IPv4 address
<iprange-address>	–	A.B.C.D–E.F.G.H Address format: A.B.C.D–E.F.G.H	Translate source address to IPv4 address range

<8> move

- **Synopsis**

move {top|bottom|before <nat-name>|after <nat-name>}
- **Function Specification**

Move NAT64 policy
- **Parameter Specification**

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <nat-name>	length:(1–95)	STRING	Move to below a specified policy
before <nat-name>	length:(1–95)	STRING	Move to above a specified policy
top	–	–	Move to top

<9> description

- **Synopsis**

description <description-value>
- **Function Specification**

Description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0–95)	STRING	Description

<10> src-ipgroups

- **Synopsis**

src-ipgroups <ipgroup-name>
- **Function Specification**

Add source address group one by one

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<11> no src-ipgroups

- Synopsis

no src-ipgroups [<ipgroup-name>]

- Function Specification

Delete source address group (all groups will be deleted if unspecified)

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Address groups

<12> rename

- Synopsis

rename <name-value>

- Function Specification

Rename

- Parameter Specification

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Rename

<13> disable

- Synopsis

<disable>

- Function Specification

Disable NAT policy

- Parameter Specification

Name	Range	Mandatory	Description
disable	-	-	Disable NAT policy

<14> ignore-acl

- Synopsis

ignore-acl {enable|disable}

- Function Specification

Whether to allow adding ACL policy automatically

- Parameter Specification

Name	Range	Mandatory	Description
enable	-	-	Allow adding ACL policy automatically
disable	-	-	Does not allow adding ACL policy automatically

<15> dst-ipv6

- **Synopsis**

dst-ipv6 <ipv6-address>

- **Function Specification**

Configure destination IP

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipv6-address>	–	A:B:C:D::E/M Address format: A:B:C:D::E/M	Configure destination IP

6) Sample

```
hostname(config)# nat64-rule aa top
hostname(config-nat64-rule-aa)# enable
hostname(config-nat64-rule-aa)# disable
hostname(config-nat64-rule-aa)# description nat64
hostname(config-nat64-rule-aa)# src-zones manager
hostname(config-nat64-rule-aa)# ignore-acl enable
hostname(config-nat64-rule-aa)# src-ipgroups all
hostname(config-nat64-rule-aa)# dst-ipv6 2000::/64
hostname(config-nat64-rule-aa)# service any
hostname(config-nat64-rule-aa)# transfer-src ip 10.10.10.10
hostname(config-nat64-rule-aa)# transfer-src iprange 10.10.10.10-10.10.10.20
hostname(config-nat64-rule-aa)# transfer-dst ip 20.20.20.0/24 port 100
hostname(config-nat64-rule-aa)# rename bb
```

4.1.27 no nat64-rule

1) Command Name

no nat64-rule

2) Synopsis

no nat64-rule <name>

3) Function Specification

Delete NAT64 policy (IPv6 to IPv4)

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

```
hostname(config)# no nat64-rule aa
```

4.1.28 clear

1) Command Name

clear

2) Synopsis

clear nathit <rule-name>

3) Function Specification

Reset hit count of a single NAT policy

4) Parameter Specification

Name	Range	Mandatory	Description
nathit <rule-name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

hostname(config)# clear nathit rulename

4.2 Access Control

4.2.1 Application Control

4.2.1.1 show acl-policy

1) Command Name

show acl-policy

2) Synopsis

show acl-policy [{[label <label-value>] [src-zone <zone-name>] [dst-zone <zone-name>] [action <action-type-value>] [status <status-value>] | [name <name>] | invalid}] <cr>

3) Function Specification

View application control policy

4) Parameter Specification

Name	Range	Mandatory	Description
label <label-value>	length:(1-95)	STRING	Tag
status <status-value>	ENUM:[enable: Enable disable: Disable]	ENUM	Status
src-zone <zone-name>	length:(1-95)	STRING	Source zone

dst-zone <zone-name>	length:(1-95)	STRING	Destination zone
action <action-type -value>	ENUM:[permit: Allow deny: Deny]	ENUM	Action
invalid	-	-	View invalid policy
<name>	length:(1-95)	STRING	View a single policy

5) Subcommand

None

6) Sample

```
hostname# show acl-policy
hostname# show acl-policy label testLabel
hostname# show acl-policy label testLabel src-zone testZone
hostname# show acl-policy label testLabel src-zone testZone dst-zone testZone2
hostname# show acl-policy src-zone testZone dst-zone testZone2 action permit status enable
hostname# show acl-policy name testPolicy
hostname# show acl-policy invalid
```

4.2.1.2 show acl-group

1) Command Name

show acl-group

2) Synopsis

show acl-group [<name>] <cr>

3) Function Specification

View policy group

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

```
hostname(config)# show acl-group
hostname(config)# show acl-group testGroup
```

4.2.1.3 show acl-policy-tool

1) Command Name

show acl-policy-tool

2) Synopsis

show acl-policy-tool simulate-match {tcp [src-zone <zone-name>] [dst-zone <zone-name>] [src-ip <ip-address>] [dst-ip <ip-address>] [src-port <port-num>] [dst-port <port-num>] [action-time <date-value>] | udp [src-zone <zone-name>] [dst-zone <zone-name>] [src-ip <ip-address>] [dst-ip <ip-address>] [src-port <port-num>] [dst-port <port-num>] [action-time <date-value>] | icmp [src-zone <zone-name>] [dst-zone <zone-name>] [src-ip <ip-address>] [dst-ip <ip-address>] [action-time <date-value>] | other [proto <protocol-num>] [src-zone <zone-name>] [dst-zone <zone-name>] [src-ip <ip-address>] [dst-ip <ip-address>] [action-time <date-value>]} <cr>

3) Function Specification

View Settings in application control policy

4) Parameter Specification

Name	Range	Mandatory	Description
tcp dst-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Destination IP
tcp dst-port <port-num>	0-65535	NUMBER	Destination port
tcp dst-zone <zone-name>	length:(1-95)	STRING	Destination zone
tcp action-time <date-value>	–	"YYYY-MM-DD hh:mm" Time occurred	Time occurred
tcp src-zone <zone-name>	length:(1-95)	STRING	Source zone
tcp src-port <port-num>	0-65535	NUMBER	Source port
tcp src-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Source IP
icmp dst-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Destination IP
icmp action-time <date-value>	–	"YYYY-MM-DD hh:mm" Time occurred	Time occurred
icmp src-zone <zone-name>	length:(1-95)	STRING	Source zone
icmp dst-zone <zone-name>	length:(1-95)	STRING	Destination zone

icmp src-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Source IP
udp dst-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Destination IP
udp dst-port <port-num>	0-65535	NUMBER	Destination port
udp dst-zone <zone-name>	length:(1-95)	STRING	Destination zone
udp action-time <date-value>	–	"YYYY-MM-DD hh:mm" Time occurred	Time occurred
udp src-zone <zone-name>	length:(1-95)	STRING	Source zone
udp src-port <port-num>	0-65535	NUMBER	Source port
udp src-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Source IP
other dst-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Destination IP
other proto <protocol-num>	0-255	NUMBER	Protocol number
other action-time <date-value>	–	"YYYY-MM-DD hh:mm" Time occurred	Time occurred
other src-zone <zone-name>	length:(1-95)	STRING	Source zone
other dst-zone <zone-name>	length:(1-95)	STRING	Destination zone
other src-ip <ip-address>	–	A.B.C.D Address format: A.B.C.D	Source IP

5) Subcommand

None

6) Sample

```
hostname# show acl-policy-tool simulate-match tcp src-zone testZone dst-zone testZone src-ip 1.
1.1.1 dst-ip 1.1.1.1 src-port 23 dst-port 43 action-time "2020-04-03 15:00"
hostname# show acl-policy-tool simulate-match udp src-zone testZone dst-zone testZone src-ip 1.
1.1.1 dst-ip 1.1.1.1 src-port 23 dst-port 43 action-time "2020-04-03 15:00"
hostname# show acl-policy-tool simulate-match icmp src-zone testZone dst-zone testZone src-ip
1.1.1.1 dst-ip 1.1.1.1 action-time "2020-04-03 15:00"
hostname# show acl-policy-tool simulate-match other proto 12 src-zone testZone dst-zone testZon
e src-ip 1.1.1.1 dst-ip 1.1.1.1 action-time "2020-04-03 15:00"
```

4.2.1.4 show acl-label

1) Command Name

show acl-label

2) Synopsis

show acl-label [<name>] <cr>

3) Function Specification

View policy tag

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

```
hostname(config)# show acl-label
hostname(config)# show acl-label testLabel
```

4.2.1.5 acl-group

1) Command Name

acl-group

2) Synopsis

acl-group <name> <cr>

3) Function Specification

Operations related to policy group

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> move

- Synopsis

move {top|up|down|before <acl-name>|after <acl-name>} <cr>
- Function Specification

Move policy group
- Parameter Specification

Name	Range	Mandatory	Description
after <acl-name>	length:(1-95)	STRING	Move to below a specified policy
top	–	–	Move to top
down	–	–	Move down
up	–	–	Move up
before <acl-name>	length:(1-95)	STRING	Move to above a specified policy

<2> rename

- Synopsis

rename <name-value> <cr>
- Function Specification

Rename policy group
- Parameter Specification

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Policy group name

6) Sample

```
hostname(config)# acl-group testGroup
hostname(config-acl-group-testGroup)# move top
hostname(config-acl-group-testGroup)# move up
hostname(config-acl-group-testGroup)# move down
hostname(config-acl-group-testGroup)# move before testGroup2
hostname(config-acl-group-testGroup)# move after testGroup2
hostname(config-acl-group-testGroup)# rename testGroup2
```

4.2.1.6 no acl-group

1) Command Name

no acl-group

2) Synopsis

no acl-group <name> <cr>

3) Function Specification

Delete policy group

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy group name

5) Subcommand

None

6) Sample

hostname(config)# no acl-group testGroup

4.2.1.7 acl-policy

1) Command Name

acl-policy

2) Synopsis

acl-policy <name> <cr>

3) Function Specification

Configure application control policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>
- **Function Specification**

Enable
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable

<2> dst-mac

- **Synopsis**

dst-mac [<mac-address>] <cr>
- **Function Specification**

Configure destination MAC address
- **Parameter Specification**

Name	Range	Mandatory	Description
<mac-address>	–	AA:BB:CC:DD:EE:FF MAC address, the default is all if left it blank	Configure destination MAC address

<3> no dst-mac

- **Synopsis**

no dst-mac [<mac-address>] <cr>
- **Function Specification**

Delete destination MAC address
- **Parameter Specification**

Name	Range	Mandatory	Description
<mac-address>	–	AA:BB:CC :DD:EE:FF MAC address	Delete destination MAC address

<4> log

- **Synopsis**

log {enable|disable} <cr>
- **Function Specification**

Configure logging (it takes effect when Log reason of every change is enabled)
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable Logging (it takes effect when Log reason of every change is enabled)
disable	–	–	Disable Logging

<5> dst-zone

- **Synopsis**

dst-zone <zone-name> <cr>
- **Function Specification**

Configure destination zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<6> no dst-zone

- **Synopsis**

no dst-zone <zone-name> <cr>
- **Function Specification**

Delete destination zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

\<7> label

- **Synopsis**

label \<name> \<cr>

- **Function Specification**

Configure tag

- **Parameter Specification**

Name	Range	Mandatory	Description
\<name>	length:(1-95)	STRING	Configure tag

\<8> no label

- **Synopsis**

no label \<name> \<cr>

- **Function Specification**

Delete tag

- **Parameter Specification**

Name	Range	Mandatory	Description
\<name>	length:(1-95)	STRING	Policy name

\<9> group

- **Synopsis**

group \<group-name> \<cr>

- **Function Specification**

Configure policy group

- **Parameter Specification**

Name	Range	Mandatory	Description
\<group-name>	length:(1-95)	STRING	Policy group name

\<10> application

- **Synopsis**

application \<app-name> \<cr>

- **Function Specification**

Configure application

- **Parameter Specification**

Name	Range	Mandatory	Description
\<app-name>	length:(1-287)	STRING	Application name

\<11> no application

- **Synopsis**

no app-name \<app-name> \<cr>

- **Function Specification**

Delete application

- **Parameter Specification**

Name	Range	Mandatory	Description
\<app-name>	length:(1-287)	STRING	Application name

<12> src-zone

- **Synopsis**

src-zone <zone-name> <cr>

- **Function Specification**

Configure source zone

- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<13> no src-zone

- **Synopsis**

no src-zone <zone-name> <cr>

- **Function Specification**

Delete source zone

- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<14> description

- **Synopsis**

description <description-value> <cr>

- **Function Specification**

Configure description

- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-256)	STRING	Configure description

<15> dst-domain

- **Synopsis**

dst-domain <domain-value> <cr>

- **Function Specification**

Configure destination domain name

- **Parameter Specification**

Name	Range	Mandatory	Description
<domain-value>	length:(0-255)	STRING	Destination domain name

<16> no dst-domain

- **Synopsis**

no dst-domain <domain-value> <cr>

- **Function Specification**

Delete destination domain name

- **Parameter Specification**

Name	Range	Mandatory	Description

<domain-value>	length:(0-255)	STRING	Destination domain name

<17> keep-alive

- Synopsis

keep-alive {1|3|7|10|15} <cr>

- Function Specification

Configure persistent connection

- Parameter Specification

Name	Range	Mandatory	Description
3	–	–	Enable Persistent connection for 3 days
7	–	–	Enable Persistent connection for 7 days
15	–	–	Enable Persistent connection for 15 days
1	–	–	Enable Persistent connection for 1 day
10	–	–	Enable Persistent connection for 10 days

<18> no keep-alive

- Synopsis

no keep-alive <cr>

- Function Specification

Disable Persistent connection

- Parameter Specification

None

<19> rename

- Synopsis

rename <name-value> <cr>

- Function Specification

Rename policy

- Parameter Specification

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Policy name

<20> user

- Synopsis

user <user-name> <cr>

- Function Specification

Configure user

- Parameter Specification

Name	Range	Mandatory	Description
<user-name>	length:(1-95)	STRING	User name

<21> no user

- **Synopsis**

no user <user-name> <cr>
- **Function Specification**

Delete user
- **Parameter Specification**

Name	Range	Mandatory	Description
<user-name>	length:(1-95)	STRING	User name

<22> service

- **Synopsis**

service <service-name> <cr>
- **Function Specification**

Configure service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<23> no service

- **Synopsis**

no service <service-name> <cr>
- **Function Specification**

Delete service
- **Parameter Specification**

Name	Range	Mandatory	Description
<service-name>	length:(1-95)	STRING	Service name

<24> user-group

- **Synopsis**

user-group <user-group-name> <cr>
- **Function Specification**

Configure user group
- **Parameter Specification**

Name	Range	Mandatory	Description
<user-group-name>	length:(1-1440)	STRING	User group name

<25> no user-group

- **Synopsis**

no user-group <user-group-name> <cr>
- **Function Specification**

Delete user group
- **Parameter Specification**

Name	Range	Mandatory	Description
<user-group-name>	length:(1-1440)	STRING	User group name

<26> move

- Synopsis

move {up|down|top|before <acl-name>|after <acl-name>} <cr>
- Function Specification

Move policy
- Parameter Specification

Name	Range	Mandatory	Description
after <acl-name>	length:(1-95)	STRING	Move to below a specified policy
top	–	–	Move to top
down	–	–	Move down
up	–	–	Move up
before <acl-name>	length:(1-95)	STRING	Move to above a specified policy

<27> src-mac

- Synopsis

src-mac [<mac-address>] <cr>
- Function Specification

Configure source MAC address
- Parameter Specification

Name	Range	Mandatory	Description
<mac-address>	–	AA:BB:CC :DD:EE:FF MAC address, the default is all if left it blank	MAC address

<28> no src-mac

- Synopsis

no src-mac [<mac-address>] <cr>
- Function Specification

Delete source MAC address
- Parameter Specification

Name	Range	Mandatory	Description
<mac-address>	–	AA:BB:CC :DD:EE:FF MAC address	MAC address

<29> automatic-DNS

- Synopsis

autoSynDNS {enable|disable} <cr>
- Function Specification

Configure domain name lookup

- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Proactive
disable	–	–	Passive

<30> disable

- Synopsis

disable <cr>

- Function Specification

Disable

- Parameter Specification

Name	Range	Mandatory	Description
disable	–	–	Disable

<31> dst-ipgroup

- Synopsis

dst-ipgroup <ipgroup-name> <cr>

- Function Specification

Configure destination network object

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1–95)	STRING	Network object name

<32> no dst-ipgroup

- Synopsis

no dst-ipgroup <ipgroup-name> <cr>

- Function Specification

Delete destination network object

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1–95)	STRING	Network object name

<33> src-ipgroup

- Synopsis

src-ipgroup <ipgroup-name> <cr>

- Function Specification

Configure source network object

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1–95)	STRING	Network object name

<34> no src-ipgroup

- Synopsis

no src-ipgroup <ipgroup-name> <cr>

- Function Specification

Delete source network object
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Network object name

<35> schedule

- **Synopsis**

schedule <schedule-name> <cr>
- **Function Specification**

Set schedule
- **Parameter Specification**

Name	Range	Mandatory	Description
<schedule-name>	length:(1-95)	STRING	Set schedule

<36> action

- **Synopsis**

action {permit/deny} <cr>
- **Function Specification**

Action (allow/deny)
- **Parameter Specification**

Name	Range	Mandatory	Description
deny	–	–	Deny
permit	–	–	Allow

6) Sample

```
hostname(config)# acl-policy testPolicy
hostname(config-acl-policy-testPolicy)# rename testPolicy2
hostname(config-acl-policy-testPolicy2)# move up
hostname(config-acl-policy-testPolicy2)# move down
hostname(config-acl-policy-testPolicy2)# move top
hostname(config-acl-policy-testPolicy2)# move before testPolicy3
hostname(config-acl-policy-testPolicy2)# move after testPolicy4
hostname(config-acl-policy-testPolicy2)# label testLabel
hostname(config-acl-policy-testPolicy2)# no label testLabel
hostname(config-acl-policy-testPolicy2)# group testGroup
hostname(config-acl-policy-testPolicy2)# description "policy description"
hostname(config-acl-policy-testPolicy2)# action permit
hostname(config-acl-policy-testPolicy2)# src-zone testZone
hostname(config-acl-policy-testPolicy2)# no src-zone testZone
hostname(config-acl-policy-testPolicy2)# src-mac 6a:54:a6:27:27:3a
hostname(config-acl-policy-testPolicy2)# user-group testUserGroup
hostname(config-acl-policy-testPolicy2)# no user-group testUserGroup
hostname(config-acl-policy-testPolicy2)# user testUser
hostname(config-acl-policy-testPolicy2)# no user testUser
hostname(config-acl-policy-testPolicy2)# src-ipgroup testIpGrop
hostname(config-acl-policy-testPolicy2)# no src-ipgroup testIpGrop
hostname(config-acl-policy-testPolicy2)# dst-zone testZone
hostname(config-acl-policy-testPolicy2)# no dst-zone testZone
hostname(config-acl-policy-testPolicy2)# services testService
hostname(config-acl-policy-testPolicy2)# no services testService
hostname(config-acl-policy-testPolicy2)# application testApplication
hostname(config-acl-policy-testPolicy2)# no application testApplication
hostname(config-acl-policy-testPolicy2)# dst-mac 6a:54:a6:27:27:3a
hostname(config-acl-policy-testPolicy2)# dst-ipgroup testIpGrop
hostname(config-acl-policy-testPolicy2)# no src-ipgroup testIpGrop
hostname(config-acl-policy-testPolicy2)# dst-domain www.baidu.com
hostname(config-acl-policy-testPolicy2)# no dst-domain www.baidu.com
hostname(config-acl-policy-testPolicy2)# enable
hostname(config-acl-policy-testPolicy2)# disable
```

```
hostname(config-acl-policy-testPolicy2)# schedule testSchedule
hostname(config-acl-policy-testPolicy2)# log enable
hostname(config-acl-policy-testPolicy2)# automatic-DNS enable
hostname(config-acl-policy-testPolicy2)# keep-alive 15
hostname(config-acl-policy-testPolicy2)# no keep-alive
```

4.2.1.8 no acl-policy

1) Command Name

no acl-policy

2) Synopsis

no acl-policy <name> <cr>

3) Function Specification

Delete application control policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

```
hostname(config)# no acl-policy testPolicy
```

4.2.1.9 acl-label

1) Command Name

acl-label

2) Synopsis

acl-label <name> <cr>

3) Function Specification

Configure policy tag

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Tag name

5) Subcommand

<1> rename

- **Synopsis**

rename <name-value> <cr>
- **Function Specification**

Rename policy tag
- **Parameter Specification**

Name	Range	Mandatory	Description
<name-value>	length:(1-95)	STRING	Tag name

6) Sample

```
hostname(config)# acl-label testLabel
hostname(config-acl-label-testLabel)# rename testLabel2
```

4.2.1.10 no acl-label

1) Command Name

no acl-label

2) Synopsis

no acl-label <name> <cr>

3) Function Specification

Delete policy tag

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Tag name

5) Subcommand

None

6) Sample

```
hostname(config)# no acl-label testLabel
```

4.2.1.11 acl-policy-tool

1) Command Name

acl-policy-tool

2) Synopsis

acl-policy-tool {check | modify-log {enable|disable} | auto-check {enable|disable} | conflict-check {enable|disable}} <cr>

3) Function Specification

Configure Settings in application control policy

4) Parameter Specification

Name	Range	Mandatory	Description
check	–	–	Check policy validity
enable	–	–	Enable
disable	–	–	Disable

5) Subcommand

None

6) Sample

```
hostname(config)# acl-policy-tool check
hostname(config)# acl-policy-tool modify-log enable
hostname(config)# acl-policy-tool modify-log disable
hostname(config)# acl-policy-tool auto-check enable
hostname(config)# acl-policy-tool auto-check disable
hostname(config)# acl-policy-tool conflict-check enable
hostname(config)# acl-policy-tool conflict-check disable
```

4.2.2 GeoLocation Blocking

4.2.2.1 show country-blocking-blocked-ip

1) Command Name

show country-blocking-blocked-ip

2) Synopsis

show country-blocking-blocked-ip [<ipv4-address>] <cr>

3) Function Specification

Return blocked IP addresses

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv4-address>	–	A.B.C.D Address format: A.B.C.D	IPv4 address

5) Subcommand

None

6) Sample

```
hostname# show country-blocking-blocked-ip
hostname# show country-blocking-blocked-ip 2.1.1.1
```

4.2.2.2 show country-blocking

1) Command Name

show country-blocking

2) Synopsis

show country-blocking [<name>]

3) Function Specification

Return geolocation blocking policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

hostname# show country-blocking
hostname# show country-blocking test

4.2.2.3 show country-blocking-whitelist

1) Command Name

show country-blocking-whitelist

2) Synopsis

show country-blocking-whitelist <cr>

3) Function Specification

Return the exclusion list

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show country-blocking-whitelist

4.2.2.4 country-blocking-whitelist

1) Command Name

country-blocking-whitelist

2) Synopsis

country-blocking-whitelist <ipv4-address>

3) Function Specification

Add IP addresses to the exclusion list (only for IPv4)

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv4-address>	-	A.B.C.D Address format: A.B.C.D	IPv4 address

5) Subcommand

None

6) Sample

```
hostname(config)# country-blocking-whitelist 200.200.155.25
hostname(config)# country-blocking-whitelist 200.200.155.26
```

4.2.2.5 no country-blocking-whitelist

1) Command Name

no country-blocking-whitelist

2) Synopsis

no country-blocking-whitelist <ipv4-address>

3) Function Specification

Delete IP addresses in the exclusion list

4) Parameter Specification

Name	Range	Mandatory	Description
<ipv4-address>	–	A.B.C.D Address format: A.B.C.D	IPv4 address

5) Subcommand

None

6) Sample

```
hostname(config)# no country-blocking-whitelist 200.200.155.25
hostname(config)# no country-blocking-whitelist 200.200.155.26
```

4.2.2.6 country-blocking

1) Command Name

country-blocking

2) Synopsis

country-blocking <name>

3) Function Specification

Add or modify geolocation blocking policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- Synopsis

enable <cr>

- Function Specification

Enable policy

- Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable policy

<2> dst-ipgroup

- Synopsis

dst-ipgroup <ipgroup-name>

- Function Specification

Add a single destination network object

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Network object name

<3> no dst-ipgroup

- Synopsis

no dst-ipgroup <ipgroup-name>

- Function Specification

Delete a single destination network object

- Parameter Specification

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Network object name

<4> move

- Synopsis

move {top|bottom|before <name>|after <name>}

- Function Specification

Move to

- Parameter Specification

Name	Range	Mandatory	Description
bottom	–	–	Move to bottom
after <name>	length:(1-95)	STRING	Move to below
before <name>	length:(1-95)	STRING	Move to above
top	–	–	Move to top

<5> country-region

- Synopsis

country-region <country-region-value>

- Function Specification

Add a single country or region
- **Parameter Specification**

Name	Range	Mandatory	Description
\<country-region-value\>	length:(0-128)	STRING	Countries or regions

<6> no country-region

- **Synopsis**

no country-region <country-region-value>
- **Function Specification**

Delete a single country or region
- **Parameter Specification**

Name	Range	Mandatory	Description
\<country-region-value\>	length:(0-128)	STRING	Countries or regions

<7> src-external-zone

- **Synopsis**

src-external-zone <zone-name>
- **Function Specification**

Add a single source WAN zone
- **Parameter Specification**

Name	Range	Mandatory	Description
\<zone-name\>	length:(1-95)	STRING	Zone name

<8> no src-external-zone

- **Synopsis**

no src-external-zone <zone-name>
- **Function Specification**

Delete a single source WAN zone
- **Parameter Specification**

Name	Range	Mandatory	Description
\<zone-name\>	length:(1-95)	STRING	Zone name

<9> rename

- **Synopsis**

rename <name>
- **Function Specification**

Modify policy name of a specified policy
- **Parameter Specification**

Name	Range	Mandatory	Description
\<name\>	length:(1-95)	STRING	Policy name

<10> action

- **Synopsis**

action <action-type>

- **Function Specification**

Set action for access from source IP addresses in specified countries or regions

- **Parameter Specification**

Name	Range	Mandatory	Description
<action-type>	ENUM:[allow: Allow access from specified countries or regions deny: Deny access from specified countries or regions]	ENUM	Action

<11> disable

- **Synopsis**

disable <cr>

- **Function Specification**

Disable policy

- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable policy

<12> description

- **Synopsis**

description <description-value>

- **Function Specification**

Modify description

- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Description

6) Sample

```
hostname(config)# country-blocking test
hostname(config-country-blocking-test)# description info
hostname(config-country-blocking-test)# enable
hostname(config-country-blocking-test)# disable
hostname(config-country-blocking-test)# src-external-zone zone
hostname(config-country-blocking-test)# no src-external-zone zone
hostname(config-country-blocking-test)# dst-ipgroup ipgroup
hostname(config-country-blocking-test)# no dst-ipgroup ipgroup
hostname(config-country-blocking-test)# action allow
hostname(config-country-blocking-test)# action deny
hostname(config-country-blocking-test)# country-region Asia Pacific/Thailand
hostname(config-country-blocking-test)# no country-region Asia Pacific/Thailand
```

```
hostname(config-country-blocking-test)# rename test1
hostname(config-country-blocking-test)# move top
hostname(config-country-blocking-test)# move bottom
hostname(config-country-blocking-test)# move before test2
hostname(config-country-blocking-test)# move after test2
```

4.2.2.7 no country-blocking

1) Command Name

no country-blocking

2) Synopsis

no country-blocking <name>

3) Function Specification

Delete geolocation blocking policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

```
hostname(config)# no country-blocking test1
```

4.2.2.8 country-blocking-blocked-ip

1) Command Name

country-blocking-blocked-ip

2) Synopsis

country-blocking-blocked-ip clear {all|block-count ip <ip-address> date <date-value>}

3) Function Specification

Operations to blocked IP addresses, like clear all IP addresses and reset blocks

4) Parameter Specification

Name	Range	Mandatory	Description
all	–	–	Clear all blocked IP addresses
<date-value>	–	YYYY-MM-DD Date format: YYYY-MM-DD	Date

<ip-address>	–	A.B.C.D Address format: A.B.C.D	IPv4 address

5) Subcommand

None

6) Sample

```
hostname(config)# country-blocking-blocked-ip clear all
hostname(config)# country-blocking-blocked-ip clear block-count ip 198.168.1.101 date 2020-02-21
```

4.2.3 Connection Control

4.2.3.1 show session-limit

1) Command Name

show session-limit

2) Synopsis

show session-limit [name]

3) Function Specification

Return connection control policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

```
hostname# show session-limit
hostname# show session-limit test1
```

4.2.3.2 session-limit

1) Command Name

session-limit

2) Synopsis

session-limit <name> [type <type-value>] <cr>

3) Function Specification

Add or modify connection control policy

4) Parameter Specification

Name	Range	Mandatory	Description
type <type-value>	ENUM:[src: Source IP connection control dst: Destination IP connection control bidirection: Bidirectional IP connection control]	ENUM	Traffic direction and control
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>
- **Function Specification**

Enable connection control policy
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable connection control policy

<2> rename

- **Synopsis**

rename <name>
- **Function Specification**

Modify policy name
- **Parameter Specification**

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

<3> src-ipgroup

- **Synopsis**

src-ipgroup <ipgroup-name> <cr>
- **Function Specification**

Add a single source network object
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Network object name

<4> no src-ipgroup

- **Synopsis**

no src-ipgroup <ipgroup-name> <cr>
- **Function Specification**

Delete a single source network object
- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Network object name

<5> dst-zone

- **Synopsis**

dst-zone <zone-name> <cr>
- **Function Specification**

Add a single destination zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<6> no dst-zone

- **Synopsis**

no dst-zone <zone-name> <cr>
- **Function Specification**

Delete a single destination zone
- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<7> max-current-sessions

- **Synopsis**

max-current-sessions <number>
- **Function Specification**

Modify maximum concurrent connections per IP
- **Parameter Specification**

Name	Range	Mandatory	Description
<number>	0-32768	NUMBER	Maximum concurrent connections per IP must be 0-32768. 0 indicates no limit.

<8> move

- **Synopsis**

move {top|bottom|before <name>|after <name>}
- **Function Specification**

Move to
- **Parameter Specification**

Name	Range	Mandatory	Description

bottom	–	–	Move to bottom
after <name>	length:(1-95)	STRING	Move to below
before <name>	length:(1-95)	STRING	Move to above
top	–	–	Move to top

<9> dst-ipgroup

- **Synopsis**

dst-ipgroup <ipgroup-name> <cr>

- **Function Specification**

Add a single destination network object

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Network object name

<10> no dst-ipgroup

- **Synopsis**

no dst-ipgroup <ipgroup-name> <cr>

- **Function Specification**

Delete a single destination network object

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipgroup-name>	length:(1-95)	STRING	Network object name

<11> src-zone

- **Synopsis**

src-zone <zone-name> <cr>

- **Function Specification**

Add a single source zone

- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<12> no src-zone

- **Synopsis**

no src-zone <zone-name> <cr>

- **Function Specification**

Delete a single source zone

- **Parameter Specification**

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Zone name

<13> disable

- **Synopsis**

disable <cr>

- **Function Specification**

Disable connection control policy
- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable connection control policy

<14> description

- **Synopsis**

description <description-value> <cr>
- **Function Specification**

Modify policy description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value >	length:(0-95)	STRING	Description

6) Sample

```
hostname(config)# session-limit test type bidirection
hostname(config-session-limit-test)# description info
hostname(config-session-limit-test)# enable
hostname(config-session-limit-test)# disable
hostname(config-session-limit-test)# src-zone zone1
hostname(config-session-limit-test)# no src-zone zone1
hostname(config-session-limit-test)# dst-zone zone1
hostname(config-session-limit-test)# no dst-zone zone1
hostname(config-session-limit-test)# src-ipgroup buss
hostname(config-session-limit-test)# no src-ipgroup buss
hostname(config-session-limit-test)# dst-ipgroup buss
hostname(config-session-limit-test)# no dst-ipgroup buss
hostname(config-session-limit-test)# max-current-sessions 5000
hostname(config-session-limit-test)# rename test1
hostname(config-session-limit-test)# move top
hostname(config-session-limit-test)# move bottom
hostname(config-session-limit-test)# move before test2
hostname(config-session-limit-test)# move after test2
```

4.2.3.3 no session-limit

1) Command Name

no session-limit

2) Synopsis

no session-limit <name>

3) Function Specification

Delete connection control policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Policy name

5) Subcommand

None

6) Sample

hostname(config)# no session-limit test1

4.3 Authentication

4.3.1 Authentication Status

4.3.1.1 show online-users

1) Command Name

show online-users

2) Synopsis

show online-users [user-status <status-type-value>] <cr>

3) Function Specification

Return a list of online users

4) Parameter Specification

Name	Range	Mandatory	Description
user-status <status-type-value>	ENUM:[active: Active (All if none is specified) frozen: Locked (All if none is specified)]	ENUM	Filter by user status (All if none is specified)

5) Subcommand

None

6) Sample

hostname# show online-users
hostname# show online-users user-status frozen

4.3.1.2 online-users

1) Command Name

online-users

2) Synopsis

online-users {block <ip-address> [time <time-value>]|unblock <ip-address>|logoff <ip-address>} <cr>

3) Function Specification

Manage online users

4) Parameter Specification

Name	Range	Mandatory	Description
logoff <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Log out online user
block <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Specify the destination host by IP address.
time <time-value>	1-1440	NUMBER	Lockout duration in minute (the default is 10 minutes)
unblock <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Unlock online user

5) Subcommand

None

6) Sample

```
hostname(config)# online-users block 192.168.1.1
hostname(config)# online-users unblock 192.168.1.1
hostname(config)# online-users logoff 192.168.1.1
```

4.3.2 User Authentication

4.3.2.1 show auth-status

1) Command Name

show auth-status

2) Synopsis

show auth-status<cr>

3) Function Specification

View user authentication status

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show auth-status

4.3.2.2 show auth-zone

1) Command Name

show auth-zone

2) Synopsis

show auth-zone<cr>

3) Function Specification

View authentication zone

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(config)# show auth-zone

4.3.2.3 show auth-policy

1) Command Name

show auth-policy

2) Synopsis

show auth-policy [name]

3) Function Specification

View authentication policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	View authentication policy

5) Subcommand

None

6) Sample

hostname(config)# show auth-policy test

4.3.2.4 auth-status

1) Command Name

auth-status

2) Synopsis

auth-status {enable|disable}

3) Function Specification

Enable/disable authentication

4) Parameter Specification

Name	Range	Mandatory	Description
enable	–	–	Enable user authentication
disable	–	–	Disable user authentication

5) Subcommand

None

6) Sample

hostname(config)# auth-status enable

4.3.2.5 auth-policy

1) Command Name

auth-policy

2) Synopsis

auth-policy <name>

3) Function Specification

Configure authentication policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Configure authentication policy

5) Subcommand

<1> move

- **Synopsis**

move {down|up|top|bottom|before <policy-name>|after <policy-name>}
- **Function Specification**

Move authentication policy
- **Parameter Specification**

Name	Range	Mandatory	Description
after <policy-name>	–	STRING	Move the authentication policy to below a certain policy
before <policy-name>	–	STRING	Move the authentication policy to above a certain policy
top	–	–	Move the authentication policy to top
up	–	–	Move up the authentication policy
down	–	–	Move down the authentication policy
bottom	–	–	Move the authentication policy to bottom

<2> localuser

- **Synopsis**

localuser {type <type-value>| bind <bind-type-value> addr <addr-type-value>}
- **Function Specification**

Add new user to local user group
- **Parameter Specification**

Name	Range	Mandatory	Description
type <type-value>	ENUM:[public: Allow concurrent logins on multiple terminals private: Do not allow concurrent logins on multiple terminals]	ENUM	Specify concurrent logins on multiple terminals when adding users to local user group

bind <bind-type-value>	ENUM:[duplex: Bidirectional binding between user and address simplex: Unidirectional binding between user and address]	ENUM	Binding mode
addr <addr-type-value>	ENUM:[ip: Bind IP address mac: Bind MAC address ipmac: Bind IP and MAC address]	ENUM	Binding address

<3> auth-type

- **Synopsis**

auth-type {noauth name <type-value>|localauth|ssoauth exceptuser <exceptuser-value>}

- **Function Specification**

Authentication type

- **Parameter Specification**

Name	Range	Mandatory	Description
noauth name <type-value>	ENUM:[iptouser: Take IP as username mactouser: Take MAC as username pctouser: Take host name as username]	ENUM	Select none authentication method
ssoauth exceptuser <excep tuser-value>	length:(1-95)	STRING	Select SSO only as authentication method and specify excluded users
localauth	–	–	Configure local password based authentication as authentication method

<4> no auth-type

- **Synopsis**

no auth-type ssoauth exceptuser <exceptuser-value>

- **Function Specification**

Delete excluded users

- **Parameter Specification**

Name	Range	Mandatory	Description
exceptuser <exceptuser-value>	length:(1-95)	STRING	Delete excluded users
ssoauth	–	–	Select SSO only as authentication method

<5> ipmac

- **Synopsis**

ipmac <ipmac-value>

- **Function Specification**

Edit IP/MAC address which authentication policy applies to

- **Parameter Specification**

Name	Range	Mandatory	Description
<ipmac-value>	–	A.B.C.D IP address format: A.B.C.D A.B.C.D/M IP address /netmask: A.B.C.D/M A.B.C.D-A1.B1.C1.D1 IP range format: A.B.C.D-E.F.G.H A.B.C.D/A1.B1.C1.D1 IP range: A.B.C.D/E.F.G.H A:B:C:D:E:F:G:H MAC address	Edit IP/MAC address which authentication policy applies to

<6> no ipmac

- **Synopsis**

no ipmac <ipmac-value>

- **Function Specification**

Delete IP/MAC address which authentication policy applies to

- **Parameter Specification**

Name	Range	Mandatory	Description

<ipmac-value>	–	A.B.C.D IP address format: A.B.C.D A.B.C.D/M IP address /netmask: A.B.C.D/M A.B.C.D-A 1.B1.C1.D1 IP range format: A. B.C.D-E.F .G.H A.B.C.D/A 1.B1.C1.D1 IP range: A.B.C.D/E. F.G.H A:B:C:D:E: F:G:H MAC address	Delete IP/MAC address which authentication policy applies to

<7> new-user-option

- **Synopsis**

new-user-option {localuser <path-name> ldap <ldap-type>|tempuser <path-name>|forbiduser} <cr>

- **Function Specification**

Specify new user options

- **Parameter Specification**

Name	Range	Mandatory	Description
forbiduser	–	–	Enable no authentication for new users
tempuser <path-name>	length:(1-1440)	STRING	Specify user group (/ /xx/) when adding user as a guest account
localuser <path-name>	length:(1-1440)	STRING	Select local user group for new users (/ /xx/)
ldap <ldap-type>	ENUM:[enable: Enable LDAP user sync disable: Disable LDAP user sync]	ENUM	LDAP user sync settings

<8> description

- **Synopsis**

description <description-value>
- **Function Specification**

Edit description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Edit description

6) Sample

```
hostname(config)# auth-policy test
hostname(config-auth-policy-test)# description description
hostname(config-auth-policy-test)# ipmac 3.3.3.3-4.4.4.4
hostname(config-auth-policy-test)# move bottom
hostname(config-auth-policy-test)# auth-type noauth name iptouser
hostname(config-auth-policy-test)# auth-type ssoauth exceptuser testUser
hostname(config-auth-policy-test)# new-user-option localuser / ldap disable
hostname(config-auth-policy-test)# localuser bind simplex addr ip
```

4.3.2.6 no auth-policy

1) Command Name

no auth-policy

2) Synopsis

no auth-policy <name>

3) Function Specification

Delete authentication policy

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Delete authentication policy

5) Subcommand

None

6) Sample

```
hostname(config)# no auth-policy test
```

4.3.2.7 auth-zone

1) Command Name

auth-zone

2) Synopsis

auth-zone <zone-name>

3) Function Specification

Configure authentication zone

4) Parameter Specification

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Configure authentication zone

5) Subcommand

None

6) Sample

hostname(config)# auth-zone testZone

4.3.2.8 no auth-zone

1) Command Name

no auth-zone

2) Synopsis

no auth-zone [<zone-name>]

3) Function Specification

Delete authentication zone

4) Parameter Specification

Name	Range	Mandatory	Description
<zone-name>	length:(1-95)	STRING	Delete authentication zone

5) Subcommand

None

6) Sample

hostname(config)# no auth-zone testZone

4.3.3 Local Users

4.3.3.1 show auth-user

1) Command Name

show auth-user

2) Synopsis

show auth-user [<name>]

3) Function Specification

View user

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	View user

5) Subcommand

None

6) Sample

hostname(config)# show auth-user test

4.3.3.2 show auth-org

1) Command Name

show auth-org

2) Synopsis

show auth-org [<path-name>]

3) Function Specification

View information about user group

4) Parameter Specification

Name	Range	Mandatory	Description
<path-name>	length:(1-1440)	STRING	View information about user group

5) Subcommand

None

6) Sample

hostname(config)# show auth-org /test

4.3.3.3 auth-org

1) Command Name

auth-org

2) Synopsis

auth-org <path-name>

3) Function Specification

Configure user group. User group name must contain group path. For example, add the user group named test to root path by entering /test

4) Parameter Specification

Name	Range	Mandatory	Description
<path-name>	length:(1-1440)	STRING	Configure user group. User group name must contain group path. For example, add the user group named test to root path by entering /test

5) Subcommand

<1> move

- Synopsis

move <group-name>
- Function Specification

Move user group by entering group path (Example: / or /test/)
- Parameter Specification

Name	Range	Mandatory	Description
<group-name>	length:(1-1440)	STRING	Move user group by entering group path (Example: / or /test/)

<2> rename

- Synopsis

rename <name>
- Function Specification

Rename user group by entering group name after rename (Example: rename test)
- Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Username

<3> description

- Synopsis

description <description-value>
- Function Specification

Edit user group description
- Parameter Specification

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Edit user group description

6) Sample

```
hostname(config)# auth-org /test
hostname(config-auth-org-test)# description description
hostname(config-auth-org-test)# move /test/
hostname(config-auth-org-test)# rename test1
```

4.3.3.4 no auth-org

1) Command Name

no auth-org

2) Synopsis

no auth-org <path-name>

3) Function Specification

Delete user group by entering group path. For example, delete the user group named test under root path by entering /test

4) Parameter Specification

Name	Range	Mandatory	Description
<path-name>	length:(1-1440)	STRING	Delete user group by entering group path. For example, delete the user group named test under root path by entering /test

5) Subcommand

None

6) Sample

hostname(config)# no auth-org /test

4.3.3.5 auth-user

1) Command Name

auth-user

2) Synopsis

auth-user <name> [path <path-value>]

3) Function Specification

Configure user

4) Parameter Specification

Name	Range	Mandatory	Description
path <path-value>	length:(1-1440)	STRING	Add user to group (/xx/xx/)
<name>	length:(1-95)	STRING	User name

5) Subcommand

<1> disable

- **Synopsis**

disable<cr>
- **Function Specification**

Disable user
- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable user

<2> rename

- **Synopsis**

rename <name>
- **Function Specification**

Rename user
- **Parameter Specification**

Name	Range	Mandatory	Description
<name>	length:(1–95)	STRING	Rename user

<3> expire

- **Synopsis**

expire date <date-value> [time <time-value>]
- **Function Specification**

User expiration settings
- **Parameter Specification**

Name	Range	Mandatory	Description
date <date-value>	–	YYYY-MM-DD Set user expiration date (YYYY-MM-DD)	Set user expiration date (YYYY-MM-DD)
time <time-value>	–	HH:MM:SS Set user expiration time (HH:MM:SS)	Set user expiration time (HH:MM:SS)

<4> no expire

- **Synopsis**

no expire<cr>
- **Function Specification**

Set user attribute as never expire
- **Parameter Specification**

None

<5> multiple-login

- **Synopsis**

multiple-login <number>
- **Function Specification**

Concurrent logins settings
- **Parameter Specification**

Name	Range	Mandatory	Description
<number>	1-5	NUMBER	Allow concurrent login on multiple terminals (1-5 users)

<6> no multiple-login

- **Synopsis**

no multiple-login<cr>
- **Function Specification**

Do not allow concurrent logins on multiple terminals
- **Parameter Specification**

None

<7> move

- **Synopsis**

move <path-name>
- **Function Specification**

Move user
- **Parameter Specification**

Name	Range	Mandatory	Description
<path-name>	length:(1-1440)	STRING	Move user

<8> auto-logout

- **Synopsis**

auto-logout time <time-value>
- **Function Specification**

Enable/disable auto-log out users who are idle for a specified period of time
- **Parameter Specification**

Name	Range	Mandatory	Description
time <time-value>	1-65535	NUMBER	Logout period (1-65535 minutes)

<9> no auto-logout

- **Synopsis**

no auto-logout<cr>
- **Function Specification**

Disable auto-log out users who are idle for a specified period of time
- **Parameter Specification**

None

<10> passwd

- **Synopsis**

passwd <passwd-value>
- **Function Specification**

Configure password for user (If the password is ciphertext, the form is {ciphertext}.)
- **Parameter Specification**

Name	Range	Mandatory	Description
<passwd-value>	length:(1-40)	STRING	Configure password for user (If the password is ciphertext, the form is {ciphertext}.)

<11> alias

- **Synopsis**

alias <alias-name>
- **Function Specification**

Specify user display name
- **Parameter Specification**

Name	Range	Mandatory	Description
<alias-name>	length:(0-95)	STRING	Specify user display name

<12> bind

- **Synopsis**

bind {enable type <type-value> |addr {ip <ip-address> [mac <mac-value>]|mac <mac-value> [ip <ip-address>]}|disable}
- **Function Specification**

Enable/disable binding IP/MAC
- **Parameter Specification**

Name	Range	Mandatory	Description
type <type-value>	ENUM:[duplex: Bidirectional binding between user and address simplex: Unidirectional binding between user and address]	ENUM	Specify binding mode

addr	ENUM:[ip: Bind IP address mac: Bind MAC address ipmac: Bind IP and MAC address]	ENUM	Specify binding address
ip <ip-address>	–	A.B.C.D IP address format: A.B.C.D A.B.C.D/M IP address /netmask: A.B.C.D/M A.B.C.D-E.F.G.H IP range format: A.B.C.D-E.F.G.H A.B.C.D/E.F.G.H IP range: A.B.C.D/E.F.G.H	Bind IP address
mac <mac-value>	–	A:B:C:D:E:F:G:H MAC address A-B-C-D-E-F-G-H MAC address	Bind MAC address
disable	–	–	Unbind

<13> no bind

- **Synopsis**

no bind addr {ip <ip-address> [mac <mac-value>]|mac <mac-value> [ip <ip-address>]}

- **Function Specification**

Unbind

- **Parameter Specification**

Name	Range	Mandatory	Description

ip <ip–address>	–	A.B.C.D IP address format: A.B.C.D A.B.C.D/M IP address /netmask: A.B.C.D/M A.B.C.D– E.F.G.H IP range format: A. B.C.D–E.F .G.H A.B.C.D/E. F.G.H IP range: A.B .C.D/E.F.G .H	Bind IP address
mac <mac–value>	–	A:B:C:D:E: F:G:H MAC address A–B–C–D –E–F–G– H MAC address	Bind MAC address

<14> enable

- **Synopsis**

enable<cr>
- **Function Specification**

Enable user
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable user

<15> logout–dialog

- **Synopsis**

logout–dialog {enable|disable}<cr>
- **Function Specification**

Whether to show logout page if users are authenticated based on password
- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable Show logout page if users are authenticated based on password

disable	–	–	Disable Show logout page if users are authenticated based on password

<16> description

- **Synopsis**

description <description-value>
- **Function Specification**

Edit description
- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value>	length:(0-95)	STRING	Edit description

6) Sample

```
hostname(config)# auth-user test path /abc/
hostname(config-auth-user-test)# rename abc
hostname(config-auth-user-test)# description description
hostname(config-auth-user-test)# move /test/
hostname(config-auth-user-test)# disable
hostname(config-auth-user-test)# alias test
hostname(config-auth-user-test)# passwd sangfor123
hostname(config-auth-user-test)# multiple-login 5
hostname(config-auth-user-test)# no multiple-login
hostname(config-auth-user-test)# auto-logout 120
hostname(config-auth-user-test)# no auto-logout
hostname(config-auth-user-test)# logout-dialog disable
hostname(config-auth-user-test)# expire date 2020-12-30 time 00:00:00
hostname(config-auth-user-test)# bind enable type duplex addr mac
hostname(config-auth-user-test)# bind addr ip 5.5.5.5
hostname(config-auth-user-test)# no bind addr mac 22:22:22:22:22:22
hostname(config-auth-user-test)# bind addr ip 5.5.5.5 mac 22:22:22:22:22:22
hostname(config-auth-user-test)# bind disable
```

4.3.3.6 no auth-user

1) Command Name

no auth-user

2) Synopsis

no auth-user <name>

3) Function Specification

Delete user

4) Parameter Specification

Name	Range	Mandatory	Description
<name>	length:(1-95)	STRING	Delete user

5) Subcommand

None

6) Sample

```
hostname(config)# no auth-user test
```

Chapter 5 System

5.1 Security Capability Update

5.1.1 show update-lib

1) Command Name

show update-lib

2) Synopsis

show update-lib <cr>

3) Function Specification

Return security capability updates

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname(show)# show update-lib

5.2 Troubleshooting

5.2.1 show sys-log

1) Command Name

show sys-log

2) Synopsis

show sys-log module <module-name> [date <date-value>] [level <level-value>] <cr>

3) Function Specification

Return system troubleshooting logs

4) Parameter Specification

Name	Range	Mandatory	Description
date <date-value>	-	STRING	Date, e.g., 20191220
module <module-name>	-	STRING	Backend process
level <level-value>	-	STRING	Logging options

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5) Subcommand

None

6) Sample

hostname(config)# show sys-log module auth-server
hostname(config)# show sys-log module auth-server level info
hostname(config)# show sys-log module auth-server date 20200608 level info

5.2.2 ping

1) Command Name

ping

2) Synopsis

ping <address> [count <count-value>] [size <size-value>] [interface <if-name>] [v6] [timeout <timeout-value>] [deadline <deadline-value>] [quiet]

3) Function Specification

Verify IP-level connectivity to another TCP/IP computer by sending ICMP echo request messages.

4) Parameter Specification

Name	Range	Mandatory	Description
<address>	length:(0-255)	A.B.C.D Specify the destination host by IP address.	Specify the destination host by IP address.
deadline <deadline-value>	0-2147483647	NUMBER	Specify a timeout in second, before ping exits (default: infinite).
size <size-value>	0-65507	NUMBER	Specify the number of data bytes to be sent in IPv4 packets.
timeout <timeout-value>	0-2147483647	NUMBER	Time to wait for the first response in second (default: 10 seconds).
interface <if-name>	length:(0-255)	STRING	Specify the interface from which to send the ping.
count <count-value>	1-2147483647	NUMBER	Specify how many times to repeat ping.
quiet	-	-	Quiet output. Nothing is displayed except the summary lines at startup time and when finished.
v6	-	-	Force IPv6 name resolution.

5) Subcommand

None

6) Sample

```
hostname# ping 127.0.0.1
hostname# ping 127.0.0.1 count 4
hostname# ping 127.0.0.1 interface eth0
hostname# ping 127.0.0.1 conut 2 interface eth0
```

5.2.3 traceroute

1) Command Name

traceroute

2) Synopsis

traceroute <address> [interface <if-name>] [src-addr <ip-address>] [src-port <port-number>] [waittime <waittime-value>] [sendwait <sendwait-value>] [v6] [debug] [dont-fragment] [first-ttl <ttl-number>] [gateway <ip-address>] [use-icmp] [use-tcp] [max-hops <hops-value>] [sim-queries <value>] [not-resolve] [port <port-number>] [tos <tos-number>] [flow-label <label-value>] [queries <queries-value>] [bypass] [extensions] [as-path-lookups] [module <module-value>] [options <options-value>] [fwmark] [use-udp] [use-udplit] [use-dccp] [protocol <protocol-value>] [mtu] [back] [version] <cr>

3) Function Specification

Print the route packets trace to network host.

4) Parameter Specification

Name	Range	Mandatory	Description
<address>	length:(0-255)	A.B.C.D Specify the destination host by IP address.	Specify the destination host by IP address.
use-tcp	–	–	Use TCP SYN for tracerouting (default port: 80).
src-addr <ip-address>	–	STRING	Choose an alternative IP address as the source address in outgoing probe packets.
not-resolve	–	–	Do not resolve IP addresses to their domain names.
waittime <waittime-value>	–	NUMBER	Set the time to wait for a response to a probe in second (default: 5 seconds).

queries <queries-value>	1–10	NUMBER	Set the number of probes per hop (default: 3).
version	–	–	Print version information and exit.
src-port <port-number>	0–65536	NUMBER	Chooses the source port to use.
sim-queries <value>	–	NUMBER	Specify the number of probe packets sent out simultaneously (default: 16).
max-hops <hops-value>	1–255	NUMBER	Specify the max number of hops (time-to-live) used in outgoing probe packets (default: 30).
sendwait <sendwait-value>	–	NUMBER	Minimal time interval between probes (default: 0).
back	–	–	Guess the number of backward hops and print it if it seems different from that of the forward direction.
first-ttl <ttl-number>	1–30	NUMBER	Start from the initial time-to-live used in the first outgoing probe packet.
debug	–	–	Enable socket level debugging.
dont-fragment	–	–	Do not fragment probe packets.
interface <if-name>	–	STRING	Specify the interface through which traceroute should send packets.
port <port-number>	–	NUMBER	Set the destination port to use.
bypass	–	–	Bypass the normal routing tables and send directly to a host on an attached network.
options <options-value>	length:(0–255)	STRING	Specify some method-specific option.
extensions	–	–	Show ICMP extensions (rfc4884).
use-icmp	–	–	Use ICMP ECHO for tracerouting.

as-path-lookups	–	–	Perform AS path lookups in routing registries and print results directly after the corresponding addresses.
protocol <protocol-value>	length:(0-255)	STRING	Use raw packet of specified protocol for tracerouting.
tos <tos-number>	–	NUMBER	Set the type-of-service value in probe packets.
v6	–	–	Use IPv6 tracerouting.
use-udp	–	–	Use UDP to particular destination port for tracerouting.
use-udplit	–	–	Use UDPLITE for tracerouting.
module <module-value>	length:(0-255)	STRING	Use specified method (either built-in or external) for traceroute operations.
fwmark	–	–	Set firewall mark for outgoing packets.
use-dccp	–	–	Use DCCP Request for tracerouting.
gateway <ip-address	length:(0-255)	STRING	Route the outgoing packets through a specified gateway.
flow-label <label-value>	length:(0-255)	STRING	Set the flow label field in IPv6 packet header.
mtu	–	–	Discover MTU along the path being traced.

5) Subcommand

None

6) Sample

```
hostname# traceroute 127.0.0.1 interface eth0
hostname# traceroute 127.0.0.1 src-port 8085
hostname# traceroute 127.0.0.1 sendwait 5
```

5.2.4 tcpdump

1) Command Name

tcpdump

2) Synopsis

tcpdump [host <address>] [net <ip-address>] [port <port-number>] [use-ascii] [buffer-size <size-value>] [count <count-value>] [{d|dd|ddd}] [list-interfaces] [link-level-header] [dont-translate-ipv4-addr] [interface <if-name>] [monitor-mode] [dont-verify-checksums] [list-datalink-types] [n] [nn] [dont-print-domain-name-qualification] [dont-run-optimizer] [no-promiscuous-mode] [quiet] [old-spec] [abs-tcp-seqnum] [snapshot-length <length-value>] [spec-packet-type] [{t|tt|ttt|tttt}] [print-undec-nfs-handles] [{v|vv|vvv|x|xx}] [{X|XX}] [data-link-type <type-value>] [drop-privileges <value>] <cr>

3) Function Specification

Capture and display TCP/IP packets and other packets being transmitted over a network.

4) Parameter Specification

Name	Range	Mandatory	Description
link-level-header	-	-	Print the link-level header on each dump line.
buffer-size <size-value>	1-2147483647	NUMBER	Set the operating system capture buffer size to buffer_size, in units of KB (1024 bytes).
nn	-	-	Do not convert protocol and port numbers etc. to names either.
net <ip-address>	length:(0-255)	A.B.C.D/E Specify an IP range to dump only packets related to the IP range.	Specify an IP range to dump only packets related to the IP range.
d	-	-	Dump the compiled packet-matching code in a human readable form to standard output and stop.
ttttt	-	-	Print a delta (in microseconds) between current and first line on each dump line.
dont-run-optimizer	-	-	Do not run the packet-matching code optimizer.
dont-verify-checksums	-	-	Do not attempt to verify IP, TCP, or UDP checksums.

n	–	–	Do not convert host addresses to names.
hdont–translate–ipv4–addr	–	–	Print foreign IPv4 addresses numerically rather than symbolically.
X	–	–	Print the data of each packet (minus its link level header) in hex and ASCII.
dd	–	–	Dump packet–matching code as a C program fragment.
drop–privileges <value>	length:(0–255)	STRING	Drop root privileges and change user ID to user and group ID to the primary group of user.
tt	–	–	Print an unformatted timestamp on each dump line.
x	–	–	Print the data of each packet (minus its link level header) in hex.
use–ascii	–	–	Print each packet in ASCII.
dont–print–domain–name–qualification	–	–	Do not print domain name qualification of host names.
v	–	–	Print (slightly more) verbose output.
vv	–	–	Print more verbose output.
host <address>	–	–	Print the list of the network interfaces available on the system and on which tcpdump can capture packets.
tttt	–	–	Print a timestamp in default format proceeded by date on each dump line.
snapshot–length <length–value>	1–2147483647	NUMBER	Snarf snaplen bytes of data from each packet rather than the default of 262144 bytes.
old–spec	–	–	Assume ESP/AH packets to be based on old specification: RFC1825 to RFC1829.

t	–	–	Do not print a timestamp on each dump line.
xx	–	–	Print the data of each packet, including its link level header, in hex.
quiet	–	–	Print less protocol information so output lines are shorter.
XX	–	–	Print the data of each packet, including its link level header, in hex and ASCII.
monitor–mode	–	–	Put the interface in monitor mode.
list–datalink–types	–	–	List the known data link types for the interface.
data–link–type <type–value>	length:(0–255)	STRING	Set the data link type to use while capturing packets to datalinktype.
spec–packet–type	length:(0–255)	STRING	Force packets selected by "expression" to be interpreted the specified type.
no–promiscuous– mode	–	–	Do not put the interface into promiscuous mode.
ddd	–	–	Dump packet–matching code as decimal numbers (preceded with a count).
vvv	–	–	Print even more verbose output.
interface <if–name>	length:(0–255)	STRING	Interfaces
abs–tcp–seqnum	–	–	Print absolute, rather than relative, TCP sequence numbers.
ttt	–	–	Print a delta (in microseconds) between current and previous line on each dump line.
count <count–value>	1–2147483647	NUMBER	Exit after receiving count packets.
print–undec–nfs–h andles	–	–	Print undecoded NFS handles.
port <port–number>	0–65535	NUMBER	Specify the destination port.

5) Subcommand

None

6) Sample

hostname# tcpdump host 127.0.0.1 port 8085

5.3 Administrator

5.3.1 login

1) Command Name

login

2) Synopsis

login <username>

3) Function Specification

Log in

4) Parameter Specification

Name	Range	Mandatory	Description
<username>	–	STRING	Log in

5) Subcommand

None

6) Sample

hostname# login admin

5.3.2 passwd

1) Command Name

passwd

2) Synopsis

passwd [<username>]

3) Function Specification

The passwd command can be used to change the password for user accounts. Ordinary admins can only change the password for their own accounts while super admins can change the password for any account.

4) Parameter Specification

Name	Range	Mandatory	Description
<username>	–	STRING	User name

5) Subcommand

None

6) Sample

hostname# passwd test-cli

5.4 Maintenance

5.4.1 show update-log

1) Command Name

show update-log

2) Synopsis

show update-log <cr>

3) Function Specification

Return update logs

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show update-log

5.4.2 redirect

1) Command Name

redirect

2) Synopsis

redirect ftp <user> <host[:port]> <reomtefile>

3) Function Specification

Redirect output to internet

4) Parameter Specification

Name	Range	Mandatory	Description

		A.B.C.D Specify the destination host by IP address. A.B.C.D:PORT Specify the destination IP address and port.	FTP server IP address (A.B.C.D[:PORT])
<host[:port]>	–	A.B.C.D Specify the destination host by IP address. A.B.C.D:PORT Specify the destination IP address and port.	FTP server IP address (A.B.C.D[:PORT])
<reomtefile>	–	STRING	Remote file name
<user>	–	STRING	FTP username

5) Subcommand

None

6) Sample

hostname# show tg | redirect ftp test 127.0.0.1:21 abc.txt
hostname# show vpn | redirect ftp test 127.0.0.1 xxxx.txt

5.5 High Availability

5.5.1 show ha

1) Command Name

show ha

2) Synopsis

show ha state <cr>

3) Function Specification

High availability basic settings

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show ha state

Chapter 6 Security Operations

6.1 Blacklist/Whitelist

6.1.1 Blacklist

6.1.1.1 show blacklist

1) Command Name

show blacklist

2) Synopsis

show blacklist [<url-value>]

3) Function Specification

View all blacklisted addresses

4) Parameter Specification

Name	Range	Mandatory	Description
<url-value>	length:(1-1024)	STRING	View all blacklisted addresses

5) Subcommand

None

6) Sample

```
hostname# show blacklist
hostname# show blacklist 11.11.11.11
```

6.1.1.2 blacklist

1) Command Name

blacklist

2) Synopsis

blacklist <url-value>

3) Function Specification

Configure a blacklisted address

4) Parameter Specification

Name	Range	Mandatory	Description
<url-value>	length:(1-1024)	STRING	Configure a blacklisted address

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>

- **Function Specification**

Enable a blacklisted address

- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable a blacklisted address

<2> disable

- **Synopsis**

disable <cr>

- **Function Specification**

Disable a blacklisted address

- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable a blacklisted address

<3> description

- **Synopsis**

description <description−value>

- **Function Specification**

Description of a blacklisted address

- **Parameter Specification**

Name	Range	Mandatory	Description
<description−value>	length:(0−95)	STRING	Description of a blacklisted address

6) Sample

```
hostname(config)# blacklist 11.11.11.11
hostname(config−blacklist−11.11.11.11)# enable
hostname(config−blacklist−11.11.11.11)# description testDescription
hostname(config−blacklist−11.11.11.11)# exit
hostname(config)# no blacklist 11.11.11.11
```

6.1.1.3 no blacklist

1) Command Name

no blacklist

2) Synopsis

no blacklist {all | item <IP address>}

3) Function Specification

Delete a blacklisted address

4) Parameter Specification

Name	Range	Mandatory	Description
all	–	–	Clear all blacklisted addresses
item <IP address>	length:(1–1024)	A.B.C.D Specify the destination host by IP address.	Delete a blacklisted address

5) Subcommand

None

6) Sample

```
hostname(config)# no blacklist all
hostname(config)# no blacklist item 11.11.11.11
```

6.1.2 Whitelist

6.1.2.1 show whitelist

1) Command Name

show whitelist

2) Synopsis

show whitelist [<url–value>]

3) Function Specification

View all whitelisted addresses

4) Parameter Specification

Name	Range	Mandatory	Description
<url–value>	length:(1–1024)	STRING	View all whitelisted addresses

5) Subcommand

None

6) Sample

```
hostname# show whitelist
hostname# show whitelist 11.11.11.11
```

6.1.2.2 whitelist

1) Command Name

whitelist

2) Synopsis

whitelist <url-value>

3) Function Specification

Configure a whitelisted address

4) Parameter Specification

Name	Range	Mandatory	Description
<url-value>	length:(1-1024)	STRING	Configure a whitelisted address

5) Subcommand

<1> enable

- **Synopsis**

enable <cr>

- **Function Specification**

Enable a whitelisted address

- **Parameter Specification**

Name	Range	Mandatory	Description
enable	–	–	Enable a whitelisted address

<2> disable

- **Synopsis**

disable <cr>

- **Function Specification**

Disable a whitelisted address

- **Parameter Specification**

Name	Range	Mandatory	Description
disable	–	–	Disable a whitelisted address

<3> description

- **Synopsis**

description <description-value>

- **Function Specification**

Description of a whitelisted address

- **Parameter Specification**

Name	Range	Mandatory	Description
<description-value >	length:(0-95)	STRING	Description of a whitelisted address

6) Sample

```
hostname(config)# whitelist 11.11.11.11
hostname(config-whitelist-11.11.11.11)# enable
hostname(config-whitelist-11.11.11.11)# description testDescription
hostname(config-whitelist-11.11.11.11)# exit
hostname(config)# no whitelist 11.11.11.11
```

6.1.2.3 no whitelist

1) Command Name

no whitelist

2) Synopsis

no whitelist <url-value>

3) Function Specification

Delete a whitelisted address

4) Parameter Specification

Name	Range	Mandatory	Description
<url-value>	length:(1-1024)	STRING	Delete a whitelisted address

5) Subcommand

None

6) Sample

```
hostname(config)# no whitelist 11.11.11.11
```

6.1.3 Temporary Blacklist

6.1.3.1 show block-ip

1) Command Name

show block-ip

2) Synopsis

show block-ip [global-time]

3) Function Specification

Return a list of blocked IP addresses

4) Parameter Specification

Name	Range	Mandatory	Description
global-time	–	–	Return lockout duration for IP blocking

5) Subcommand

None

6) Sample

```
hostname# show block-ip
hostname# show block-ip global-time
```

6.1.3.2 block-ip

1) Command Name

block-ip

2) Synopsis

block-ip { src-ip <ip-address> [time <time-value>] | dst-ip <ip-address> [time <time-value>] | dns <domain> [time <time-value>]| url <url-value> [time <time-value>] | global-time <time-value> }

3) Function Specification

Add IP address to blacklist manually

4) Parameter Specification

Name	Range	Mandatory	Description
dst-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Destination IP
time <time-value>	–	Xd Lock for X days Xh Lock for X hours Xm Lock for X minutes	Lockout duration must be 3 minutes to 15 days in the format of number + days/minutes/hours. The default is 1 day.
url <url-value>	–	xx.com/index.php URL, e.g., www.google.com/index.php	URL, e.g., www.google.com/index.php
global-time <time-value>	–	Xd Lock for X days Xh Lock for X hours Xm Lock for X minutes	Lockout duration for automatic IP blocking must be in the format of number + days/hours/minutes, e.g., 1 day, 1 hour, or 1 minute.

| dns <domain> | – | xx.com Domain name, e.g., www.google.com | Domain name, e.g., www.google.com |
| src-ip <ip-address> | – | A.B.C.D Specify the destination host by IP address. | Source IP address |

5) Subcommand

None

6) Sample

```
hostname(config)# block-ip src-ip 192.168.5.5
hostname(config)# block-ip dst-ip 192.168.5.5
hostname(config)# block-ip dst-ip 192.168.5.5 time 1d
hostname(config)# block-ip global-time 1d
```

6.1.3.3 no block-ip

1) Command Name

no block-ip

2) Synopsis

no block-ip {all | filter [src-ip <ip-address>] [dst-ip <ip-address>] [dns <domain>] [url <url-value>] [attack <attack-type-value>] [dst-port <port>] [scope <scope-value>]} <cr>

3) Function Specification

Delete blocked IP address

4) Parameter Specification

Name	Range	Mandatory	Description
dst-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Destination IP is null by default if none is specified.
dst-port <port>	0-65535	NUMBER	Destination port is null by default if none is specified.
attack <attack-type-value>	–	STRING	Attack type is null by default if none is specified.

url <url-value>	–	xx.com/index.php URL, e.g., www.google.com/index.php	URL is null by default.
scope <scope-value>	ENUM:[global: Global business: Service]	ENUM	Lockout range is null by default.
dns <domain>	–	xx.com Domain name, e.g., www.google.com	Domain name is null by default.
src-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Source IP is null by default if none is specified.

5) Subcommand

None

6) Sample

```
hostname(config)# no block-ip all
hostname(config)# no block-ip filter dst-ip 192.168.1.5
hostname(config)# no block-ip filter dst-ip 192.168.1.5 attack null
```

Chapter 7 Home

7.1 System Status

7.1.1 show up-times

1) Command Name

show up-times

2) Synopsis

show up-times <cr>

3) Function Specification

Show device uptime

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show up-times

7.1.2 show version

1) Command Name

show version

2) Synopsis

show version <cr>

3) Function Specification

Return version information

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show version

7.1.3 show storage-usage

1) Command Name

show storage-usage

2) Synopsis

show storage-usage <cr>

3) Function Specification

Show hard disk usage

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show storage-usage

7.1.4 show memory

1) Command Name

show memory

2) Synopsis

show memory [trends <trends-type-value>] <cr>

3) Function Specification

Show memory usage

4) Parameter Specification

Name	Range	Mandatory	Description

	ENUM:[real-time: Realtime memory usage (time interval: 10 seconds) 24hour: Realtime memory usage over last 24 hours (time interval: 10 minutes) 7day: Realtime memory usage over last 7 days (time interval: 72 minutes)]	ENUM	Memory usage over a certain period (in real time by default)
trends <trends-type-value>			

5) Subcommand

None

6) Sample

hostname# show memory
hostname# show memory trends real-time

7.1.5 show storage

1) Command Name

show storage

2) Synopsis

show storage <cr>

3) Function Specification

Return hard disk details

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show storage

7.1.6 show cpu

1) Command Name

show cpu

2) Synopsis

show cpu {trends <trends-value> | detail}

3) Function Specification

Show CPU usage

4) Parameter Specification

Name	Range	Mandatory	Description
detail	–	–	Show CPU usage
trends <trends-value>	ENUM:[real-time: Realtime CPU usage (time interval: 10 seconds) 24hour: Realtime CPU usage over last 24 hours (time interval: 10 minutes) 7day: Realtime CPU usage over last 7 days (time interval: 72 minutes)]	ENUM	Show CPU usage trend

5) Subcommand

None

6) Sample

```
hostname# show cpu
hostname# show cpu detail
hostname# show cpu trends 24hour
```

7.1.7 show clock

1) Command Name

show clock

2) Synopsis

show clock <cr>

3) Function Specification

Return system time

4) Parameter Specification

None

5) Subcommand

None

6) Sample

hostname# show clock

7.2 Throughput

7.2.1 show interface-traffics

1) Command Name

show interface-traffics

2) Synopsis

show interface-traffics [interface <if-name>] [time-filter <time-type-value>] <cr>

3) Function Specification

Show interface throughput

4) Parameter Specification

Name	Range	Mandatory	Description
interface <if-name>	–	all-wan All WAN interfaces	Filter by interface (throughput unit: Kbps, and all-wan indicates all WAN interfaces by default)
time-filter <time-type-value>	ENUM:[real-time: Throughput 24hour: Throughput over last 24 hours (time interval: 10 minutes) 7day: Throughput over last 7 days (time interval: 72 minutes)]	ENUM	Return data preserved for a specified period of time (realtime data by default)

5) Subcommand

None

6) Sample

hostname# show interface-traffics
hostname# show interface-traffics interface eth0
hostname# show interface-traffics interface all-wan time-filter real-time

7.3 Monitor

7.3.1 Sessions

7.3.1.1 Traffic Ranking

7.3.1.1.1 show top-traffics

1) Command Name

show top-traffics

2) Synopsis

show top-traffics { { user [ip <ip-address> | sort-by <sort-type-value>] }|{ application [sort-by <sort-type-value>] } | { trends [speed-type <speed-type-value>] [time-filter <time-filter-value>] [top <top-value>] [ip <ip-address>]} } <cr>

3) Function Specification

Show top applications by traffic

4) Parameter Specification

Name	Range	Mandatory	Description
ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Show traffic details about specified IP address
sort-by <sort-type-value>	ENUM:[up: Outbound throughput down: Inbound throughput total: Bidirectional traffic]	ENUM	Traffic direction (bidirectional if none is specified)

speed-type <speed-type-value>	ENUM:[up: Outbound throughput down: Inbound throughput total: Bidirectional traffic]	ENUM	Traffic direction (bidirectional if none is specified)
time-filter <time-filter-value>	ENUM:[1hour: Top IP addresses by traffic over last hour 12hour: Show top IP addresses by traffic over last 12 hours 24hour: Top IP addresses by traffic over last 24 hours]	ENUM	Top IP addresses by traffic over a certain period (last hour by default)
top <top-value>	ENUM:[top5: Top 5 IP addresses by traffic top10: Top 10 IP addresses by traffic]	ENUM	Show top 5 or top 10 IP addresses by traffic

5) Subcommand

None

6) Sample

```
hostname# show top-traffics trends
hostname# show top-traffics trends ip 192.168.1.1
hostname# show top-traffics trends speed-type down
hostname# show top-traffics trends ip 40.40.40.37 speed-type down time-filter 12hour
hostname# show top-traffics user sort-by up
hostname# show top-traffics user ip 192.168.1.1
```

7.3.1.2 Session Ranking

7.3.1.2.1 show session

1) Command Name

show session

2) Synopsis

show session { monitored-ip | trends {{{[monitored-ip <ip-address>]|[date <date-value>] [session-type <session-type-value>]} | {all [time <time-type-value>]}} [session-type <session-type-value>]} | {dailys monitored-ip <ip-address> [time-filter <time-filter-value>]} | {details src-ip <ip-address> [dst-ip <ip-address>]} | {peer-ip-list src-ip <ip-address>} | {top-sessions [by <type-value>]} } <cr>

3) Function Specification

Show session data

4) Parameter Specification

Name	Range	Mandatory	Description
monitored-ip	–	–	Show monitored IP addresses
session-type <session-type-value>	ENUM:[new: New sessions/sec concurrent: Number of concurrent sessions]	ENUM	Concurrent sessions or new sessions trend (new sessions by default)
time <time-type-value>	ENUM:[real-time: Total sessions (time interval: 10 seconds) 24hour: Total sessions over last 24 hours (time interval: 10 minutes) 7day: Top IP addresses by total sessions over last 7 days (time interval: 72 minutes)]	ENUM	Specify IP address
date <date-value>	–	yyyy-mm-dd Sessions on specified day week Sessions over one week	Specify date

monitored-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Specify IP address
dailys monitored-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Daily new sessions of specified monitored IP address
dst-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Destination IP (all if none is specified)
details src-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Source IP (required)
peer-ip-list src-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address.	Specify source IP address
by <type-value>	ENUM:[new: Show top IP addresses by new sessions/sec total: Top IP addresses by total sessions]	ENUM	Specify ranking method

5) Subcommand

None

6) Sample

hostname# show session peer-ip-list src-ip 192.168.1.1
hostname# show session details src-ip 192.68.55.1 dst-ip 200.68.55.1
hostname# show session dailys monitored-ip 192.68.55.1
hostname# show session monitored-ip
hostname# show session top-sessions by new
hostname# show session trends monitored-ip 192.168.1.1 date week session-type concurrent
hostname# show session trends all time 7day session-type concurrent

7.3.1.2.2 session

1) Command Name

session

2) Synopsis

session monitored-ip <ip-address> <cr>

3) Function Specification

Configure session data

4) Parameter Specification

Name	Range	Mandatory	Description
monitored-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address. A.B.C.D-A.B.C.D IP range	Add monitored IP address

5) Subcommand

None

6) Sample

hostname(config)# session monitored-ip 192.168.1.1-192.168.1.5

7.3.1.2.3 no session

1) Command Name

no session

2) Synopsis

no session monitored-ip <ip-address>

3) Function Specification

Delete monitored IP address

4) Parameter Specification

Name	Range	Mandatory	Description
monitored-ip <ip-address>	–	A.B.C.D Specify the destination host by IP address. A.B.C.D-A.B.C.D IP range	Delete monitored IP address

5) Subcommand

None

6) Sample

hostname(config)# no session monitored-ip 192.168.1.1-192.168.1.2