



SM24T6DPA

Managed Layer 2 Gigabit Ethernet Switch

(20) 10/100/1000Base-T Ports + (4) 100/1000Base-X SFP/RJ-45 Combo Ports + (2) 100/1000Base-X SFP Slots

SM24T6DPA# ?

clear	Reset functions
configure	Enter configuration mode
copy	Copy from source to destination
debug	Debugging functions
delete	Delete one file in flash: file system
dir	Directory of all files in flash: file system
disable	Turn off privileged commands
do	To run exec commands in config mode
dot1x	IEEE Standard for port-based Network Access Control
enable	Turn on privileged commands
exit	Exit from EXEC mode
firmware	Firmware upgrade/swap
help	Description of the
ip	IPv4 commands
logout	Exit from EXEC mode
more	Display file
no	Negate a command or
ping	Send ICMP echo messages
reload	Reload system.
send	Send a message to other tty lines
show	Show running system information
terminal	Set terminal line parameters

A black, rack-mountable network switch with a front panel featuring 24 RJ-45 ports and 4 SFP ports. The switch is shown from a three-quarter perspective.

CLI Reference

33666 Rev. C

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CAUTION: Alerts you to a potential hazard that could cause loss of data, or damage the system or equipment.

SM24T6DPA CLI Reference - TN PN 33666 Rev. C

Record of Revisions

Rev	Date	Description of Changes
A	11/24/15	Initial release for software v6.39.
B	6/29/16	Updated for software v 6.43.
C	9/5/19	Update for FW v 6.48; update contact information. Update for FW v6.54.2925 to add customized SSL certs, DMS Map View upload Google map API key function, and port security sticky function. Update for FW v6.54.3202 with snmp server location command. Remove CLI reload cool function, change port number for syslog server function, add SCP function,

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Address comments on this product or manual to:

Transition Networks Inc.

10900 Red Circle Drive, Minnetonka, MN 55343

Telephone: +1-952-941-7600 / Toll Free: 800-526-9267 / Fax: 952-941-2322

E-Mail: customerservice@transition.com / techsupport@transition.com sales@transition.com / info@transition.com

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About This Guide

PURPOSE: This guide gives specific information on how to operate and use the management functions of the switch.

AUDIENCE: The guide is intended for use by network administrators who are responsible for operating and maintaining network equipment; consequently, it assumes a basic working knowledge of general switch functions, the Internet Protocol (IP), and Simple Network Management Protocol (SNMP).

CONVENTIONS: The following conventions are used throughout this guide to show information:



Attention: this product, like all electronic products, uses semiconductors that can be damaged by ESD (electrostatic discharge). Always observe appropriate precautions when handling.



NOTE: Emphasizes important information or calls your attention to related features or instructions.



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Related Manuals

- SM24T6DPA Quick Start Guide, 33670
- SM24T6DPA Install Guide, 33664
- SM24T6DPA WEB User Guide, 33665
- Release Notes (version specific)

There is an online web-based help that describes the management related features.

For Transition Networks Drivers, Firmware, etc. go to the [Product Support](#) webpage (login required). For Manuals, Brochures, Data Sheets, etc. go to the [Support Library](#) (no registration required).

1. CLI Management

For the network connection:

1. Locate the correct DB-9 (RS-232) cable with female DB-9 connector. RS-232 cable is used for connecting a terminal or terminal emulator to the Managed Switch's RJ45 port to access the command-line interface.
2. Attach the RJ45 serial port on the switch's front panel which used to connect to the switch for console configuration.
3. Attach the other end of the DB-9 cable to an ASCII terminal emulator or PC Com-1, 2 port. For example, a PC running HyperTerminal.
4. At "Com Port Properties" Menu, configure the parameters as below (see the next section):

Baud rate	115200
Stop bits	1
Data bits	8
Parity	N
Flow control	none

1-1 Login

The command-line interface (CLI) is a text-based interface. User can access the CLI through either a direct serial connection to the device or a Telnet session. The default user and password to login into the Managed Switch are listed below:

Username: admin
Password: admin

After you login successfully, the prompt will be shown as "<sys_name>#". See the following two figures. It means you behave as an administrator and have the privilege for setting the Managed Switch. If log as not the administrator, the prompt will be shown as "<sys_name>>", it means you behave as a guest and are only allowed for setting the system under the administrator. Each CLI command has a privilege level.

```
Username: admin
Password: admin
SM24T6DPA#
```

1-2 CLI Commands

The CLI is divided into several modes. If a user has enough privilege to run a particular command, the user has to run the command in the correct mode. To see the commands of the mode, enter a ? after the system prompt, then all commands will be listed in the screen. The command modes are listed below:

Command Modes

Mode	Prompt	Command Function in This Mode
exec	<sys_name>#	Display current configuration, diagnostics, maintenance
config	<sys_name>(config)#	Configure features other than those below
Config-if	<sys_name>(config-interface)#	Configure ports
Config-if-vlan	<sys_name>(config-if-vlan)#	Configure static vlan

Commands reside in the corresponding modes can run only in that mode. To run a particular command, you must change to the appropriate mode. The command modes are organized as a tree, and users start to in enable mode. The following table explains how to change from one mode to another.

Change Between Command Modes

MODE	ENTER MODE	LEAVE MODE
exec	--	--
config	Configure terminal	exit
config-interfcae	Interface <port-type> <port-type-list>	exit
config-vlan	Interface vlan <vlan_list>	exit

1-3 Global CLI Commands

```
SM24T6DPA# ?  
  
  CableDiag      Cable Diagnostic keyword  
  clear          Reset functions  
  configure      Enter configuration mode  
  copy           Copy from source to destination  
  debug          Debugging functions  
  delete         Delete one file in flash: file system  
  dir            Directory of all files in file system  
  disable        Turn off privileged commands  
  do             To run exec commands in config mode  
  dot1x          IEEE Standard for port-based Network Access Control  
  enable         Turn on privileged commands  
  exit           Exit from EXEC mode  
  firmware       Firmware upgrade/swap  
  help           Description of the interactive help system  
  ip             IPv4 commands  
  logout         Exit from EXEC mode  
  more           Display file  
  no             Negate a command or set its defaults  
  ping           Send ICMP echo messages  
  reload         Reload system.  
  send           Send a message to other tty lines  
  show           Show running system information  
  terminal       Set terminal line parameters  
  traceroute     traceroute program  
  
SM24T6DPA#
```

Exit

Exit from EXEC mode.

Syntax:

exit

Parameters:

None.

Example:

```
SM24T6DPA(config)# exit
SM24T6DPA#
```

Help

Description of the interactive help system.

Syntax:

help

Parameter:s

None.

Example:

```
SM24T6DPA# help
Help may be requested at any point in a command by entering
a question mark '?'. If nothing matches, the help list will
be empty and you must backup until entering a '?' shows the
available options.
Two styles of help are provided:
1. Full help is available when you are ready to enter a
   command argument (e.g. 'show ?') and describes each possible
   argument.
2. Partial help is provided when an abbreviated argument is entered
   and you want to know what arguments match the input
   (e.g. 'show pr?'.)
SM24T6DPA#
```


logout

Exit from EXEC mode.

Syntax:

logout

Parameters:

none

Example:

```
SM24T6DPA# logout

press ENTER to get started
```

end

Go back to EXEC mode.

Syntax:

end

Example:

```
(config)# end
SM24T6DPA#
```

2. Clear Commands

Table : CLEAR Commands

Command	Function
access	Access management
access-list	Access list
dot1x	IEEE Standard for port-based Network Access Control
ip	Interface Internet Protocol config commands
ipv6	IPv6 configuration commands
lACP	Clear LACP statistics
lldp	Clears LLDP statistics.
logging	Syslog
mac	MAC Address Table
mvr	Multicast VLAN Registration configuration
port-security	Enable/disable port security globally.
sflow	Statistics flow.
spanning-tree	STP Bridge
statistics	Clear statistics for a given interface

access

Access management.

Syntax:

clear access management statistics

Parameters

management Access management configuration.

statistics Statistics data.

Example:

```
SM24T6DPA# clear access management statistics
SM24T6DPA#
```

access-list

Access list.

Syntax:

Clear access-list ace statistics

Parameters:

ace Access list entry

statistics Traffic statistics

Example:

```
SM24T6DPA# clear access-list ace statistics
SM24T6DPA#
```

dot1x

IEEE Standard for port-based Network Access Control.

Syntax

Clear dot1x statistics

Clear dot1x statistics interface GigabitEthernet < PORT_TYPE_LIST >

Parameters

statistics Clears the statistics counters

interface Interface

GigabitEthernet 1 Gigabit Ethernet Port

PORT_TYPE_LIST Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# clear dot1x statistics interface GigabitEthernet 1/1-26
SM24T6DPA#
```

CableDiag

Cable Diagnostic keyword.

Syntax

CableDiag interface <port_type> <port_type_id>

Parameters

GigabitEthernet 1 Gigabit Ethernet Port

<port_type_id> Port ID in 1/1-24

EXAMPLE

```
SM24T6DPA# CableDiag interface GigabitEthernet 1/1
Starting Cable Diagnostic - Please wait
Interface           Link Status   Test Result   Length
-----
GigabitEthernet 1/1  1G           detect error or check cable length is between 7-120 meters
SM24T6DPA#
```

ip

Interface Internet Protocol config commands

Syntax

clear ip arp

clear ip dhcp detailed statistics { server | client | snooping | relay | helper | all } [interface (<port_type> [<in_port_list>])]

clear ip dhcp relay statistics

clear ip dhcp server binding <ip>

clear ip dhcp server binding { automatic | manual | expired }

clear ip dhcp server statistics

clear ip dhcp snooping statistics [interface (<port_type> [<in_port_list>])]

clear ip igmp snooping [vlan <v_vlan_list>] statistics

clear ip statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]

Parameters

arp	Clear ARP cache
dhcp	Dynamic Host Configuration Protocol
igmp	Internet Group Management Protocol
statistics	Traffic statistics
relay	DHCP relay agent configuration
snooping	DHCP snooping
interface	Select an interface to configure
GigabitEthernet	1 Gigabit Ethernet Port
vlan	IPv4 traffic interface
<vlan_list>	VLAN identifier(s): VID

EXAMPLE

```

SM24T6DPA# clear ip arp
SM24T6DPA# clear ip dhcp detailed statistics all interface GigabitEthernet 1/1-26
SM24T6DPA# clear ip dhcp relay statistics
SM24T6DPA# clear ip dhcp server binding 192.168.1.11
SM24T6DPA# clear ip dhcp server binding automatic
SM24T6DPA# clear ip dhcp server statistics
SM24T6DPA# Clear ip dhcp snooping statistics interface GigabitEthernet 1/1-26
SM24T6DPA# clear ip igmp snooping vlan 1 statistics
SM24T6DPA# clear ip statistics system interface
SM24T6DPA# clear ip statistics system interface vlan 1 icmp icmp-msg 2

```

ipv6

IPv6 configuration commands.

Syntax

clear ipv6 mld snooping [vlan <v_vlan_list>] statistics

clear ipv6 neighbors

clear ipv6 statistics [system] [interface vlan <v_vlan_list>] [icmp] [icmp-msg <type>]

Parameters

mld	Multicasat Listener Discovery
neighbors	Ipv6 neighbors
statistics	Traffic statistics
snooping	Snooping MLD
statistics	Running MLD snooping counters
vlan	Ipv6 interface traffic
<vlan_list>	VLAN identifier(s): VID
icmp	IPv6 ICMP traffic
icmp-msg	IPv6 ICMP traffic for designated message type
interface	Select an interface to configure
system	IPv6 system traffic
< 0~255>	ICMP message type ranges from 0 to 255

EXAMPLE

```
SM24T6DPA# clear ipv6 mld snooping vlan 3 statistics
SM24T6DPA# clear ipv6 neighbors
SM24T6DPA# Clear ipv6 statistics system icmp icmp-msg
2
```

lacp

Clear LACP statistics

Syntax

Clear lacp statistics

Parameter

statistics Clear all LACP statistics

EXAMPLE

```
SM24T6DPA# clear lacp statistics
SM24T6DPA#
```

lldp

Clears LLDP statistics.

Syntax

Clear lldp statistics

Clear lldp statistics| begin | exclude | include >< LINE >

Parameters

statistics Clears LLDP statistics.

| Output modifiers

begin Begin with the line that matches

exclude Exclude lines that match

include Include lines that match

<LINE> String to match output lines

EXAMPLE

```
SM24T6DPA# clear lldp statistics | begin LINE
SM24T6DPA#
```

logging

Syslog.

Syntax

clear logging [info] [warning] [error] [switch <switch_list>]

Parameters

error	Error
info	Information
warning	Warning

EXAMPLE

```
SM24T6DPA# clear logging info error warning
SM24T6DPA#
```

mac

MAC Address Table.

Syntax

Clear mac address-table

Parameter

address-table	Flush MAC Address table.
----------------------	--------------------------

EXAMPLE

```
SM24T6DPA# clear mac address-table
SM24T6DPA#
```


mvr

Clear Multicast VLAN Registration configuration.

Syntax

clear mvr [vlan <v_vlan_list> | name <mvr_name>] statistics

Parameters

name	MVR multicast name
statistics	Running MVR protocol counters
vlan	MVR multicast vlan
< word16>	MVR multicast VLAN name
<vlan_list>	MVR multicast VLAN list

EXAMPLE

```
SM24T6DPA# clear mvr vlan 25 statistics
SM24T6DPA#
```

port-security

Clear port security globally.

Syntax

clear port-security sticky { All | interface (<port_type> [<plist>]) }

Parameters

port-security	Enable/disable port security globally.
sticky	port security sticky function per interface.
All	clear all sticky mac at all ports
interface	Choose port
*	All switches or All ports
GigabitEthernet	1 Gigabit Ethernet Port
PORT_LIST	Port list in 1/1-26

EXAMPLE

```
SM24T6DPA# clear port-security sticky interface GigabitEthernet 1/6-10
SM24T6DPA#
```

sflow

Clear Statistics flow.

Syntax

```
clear sflow statistics { receiver [ <receiver_index_list> ] | samplers [ interface [ <samplers_list> ] ( <port_type> [ <v_port_type_list> ] ) ] }
```

Parameters

interface	Interface
receiver	Clear statistics for receiver.
<port_type>	GigabitEthernet
<Samplers : option>	runtime
<port_type_list>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# clear sflow statistics interface
GigabitEthernet 1/1-26
```

spanning-tree

STP Bridge.

Syntax

```
clear spanning-tree { { statistics [ interface ( <port_type> [ <v_port_type_list> ] ) ] } | { detected-protocols [ interface ( <port_type> [ <v_port_type_list_1> ] ) ] } }
```

Parameters

detected-protocols	Set the STP migration check
statistics	STP statistics
interface	Choose port
<port_type>	GigabitEthernet
<port_type_list>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# clear spanning-tree detected-protocols interface
GigabitEthernet 1/1-26
```

statistics

Clear statistics for a given interface

Syntax

clear statistics interface <port_type> <port_type_list>

clear statistics <port_type> <port_type_list>

Parameters

<port_type> GigabitEthernet

<port_type_list> Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# clear statistics GigabitEthernet 1/1-26
SM24T6DPA#
```

3. Configure Commands

Table : Config Mode Commands

<u>Command</u>	<u>Function</u>
terminal	Configure from the terminal
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
banner	Define a login banner
bonjour	Set bonjour's configurations
clock	Configure time-of-day clock
default	Set a command to its defaults
dms	Enable DMS Master
do	To run exec commands in config mode
dot1x	IEEE Standard for port-based Network Access Control
enable	Modify enable password parameters
end	Go back to EXEC mode
event	Trap event severity level
exit	Exit from Configuration mode
green-ethernet	Green ethernet (Power reduction)
gvrp	Enable GVRP feature
help	Description of the interactive help system
hostname	Set system's network name
interface	Select an interface to configure
ip	Internet Protocol
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
lACP	LACP settings
line	Configure a terminal line
lldp	LLDP configurations.
logging	Syslog
loop-protect	Loop protection configuration
mac	MAC table entries/configuration
map-api-key	Set Google Map key string

monitor	Set monitor configuration.
mvr	Multicast VLAN Registration configuration
no	Negate a command or set its defaults
ntp	Configure NTP
port-security	Enable/disable port security globally.
privilege	Command privilege parameters
qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
sflow	Statistics flow.
smtp	Set email information
snmp-server	Set SNMP server's configurations
spanning-tree	Spanning Tree protocol
system	Set the SNMP server's configurations
tacacs-server	Configure TACACS+
upnp	Set UPnP's configurations
username	Establish User Name Authentication
vlan	VLAN commands
voice	Voice appliance attributes
web	Web

terminal

Configure from the terminal (enter Config mode from Exec mode).

Syntax

configure terminal

EXAMPLE

```
SM24T6DPA# configure terminal
SM24T6DPA(config) #
```

aaa

Configure Authentication, Authorization and Accounting.

SYNTAX

aaa authentication login { console | telnet | ssh | http } { { local | radius | tacacs } [{ local | radius | tacacs } [{ local | radius | tacacs }]] }

Parameters

authentication	Authentication
login	Login
console	Configure Console
http	Configure HTTP
ssh	Configure SSH
telnet	Configure Telnet
local	Use local database for authentication
radius	Use RADIUS for authentication
tacacs	Use TACACS+ for authentication

EXAMPLE

```
SM24T6DPA(config)# aaa authentication login http radius
SM24T6DPA(config)#
```

access

Configure Access management.

SYNTAX

access management

access management <access_id> <access_vid> <start_addr> [to <end_addr>] { [web] [snmp] [telnet] | all }

Parameters

management	Access management configuration
< 1-16>	ID of access management entry
< 1-4094>	The VLAN ID for the access management entry
< ipv4_addr>	Start IPv4 address
< ipv6_addr>	Start IPv6 address
all	All services
snmp	SNMP service
telnet	TELNET/SSH service
to	End address of the range
web	Web service

EXAMPLE

```
SM24T6DPA(config)# access management 10 3 192.168.1.1 all
SM24T6DPA(config)#
```

aggregation

Configure Aggregation mode.

SYNTAX

aggregation mode {[dmac][ip][dmac][port]}

Parameters

mode Traffic distribution mode
dmac Destination MAC affects the distribution
ip IP address affects the distribution
port IP port affects the distribution
smac Source MAC affects the distribution

EXAMPLE

```
SM24T6DPA(config)# aggregation mode ip port dmac smac
SM24T6DPA(config)#
```

banner

Define a login banner.

SYNTAX

banner [motd] <banner>

banner exec <banner>

banner login <banner>

Parameters

<LINE> c banner-text c, where 'c' is a delimiting character
exec Set EXEC process creation banner
login Set login banner
motd Set Message of the Day banner

EXAMPLE

```
SM24T6DPA(config)# banner exec LINE
Enter TEXT message. End with the character 'L'.
L
SM24T6DPA(config)#
```


bonjour

Enable/disable Bonjour discovery.

SYNTAX

bonjour <cr>

Parameters

None.

EXAMPLE

```
SM24T6DPA(config)# bonjour
SM24T6DPA(config)# do show bonjour
bonjour Mode           : Enabled
SM24T6DPA(config)#
```

clock

Configure time-of-day clock.

SYNTAX

clock set <icliDate> <icliTime>

clock summer-time <word16> date [<start_month_var> <start_date_var> <start_year_var> <start_hour_var>
<end_month_var> <end_date_var> <end_year_var> <end_hour_var> [<offset_var>]]

clock summer-time <word16> recurring [<start_week_var> <start_day_var> <start_month_var> <start_hour_var>
<end_week_var> <end_day_var> <end_month_var> <end_hour_var> [<offset_var>]]

clock timezone <word_var> <hour_var> [<minute_var>]

Parameters

set	set clock
summer-time	Configure summer (daylight savings) time
timezone	Configure time zone
<date>	yyyy/mm/dd
<time>	hh:mm:ss
<2000-2097>	Year to start
hh:mm	Time to start (hh:mm)
<1-12>	Month to end
<1-31>	Date to end
<2000-2097>	Year to end
hh:mm	Time to end (hh:mm)
<1-1440>	Offset to add in minutes
<1-5>	Week number to start
<1-7>	Weekday to start
<1-12>	Month to start

EXAMPLE

```
SM24T6DPA(config)# clock set 2014/11/04 10:22:03
2014-11-04T10:22:03+00:00
SM24T6DPA(config)# do show clock
System Time      : 2011-01-01T00:05:48+00:00
```

default

Set a command to its defaults.

SYNTAX

default access-list rate-limiter [<rate_limiter_list>]

Parameters

access-list	Access list
rate-limiter	Rate limiter
<RateLimiterId : 1-16>	Rate limiter ID

EXAMPLE

```
SM24T6DPA(config)# default access-list rate-limiter 3
SM24T6DPA(config)#
```

dms

Enable/ disable and prioritize DMS Master switch.

SYNTAX

dms service-mode { disabled | enabled [priority { high | mid | low | non }] }

Parameters

service-mode	DMS mode
disabled	DMS mode is disabled
enabled	DMS mode is enabled
high	DMS priority is high
low	DMS priority is low
mid	DMS priority is mid
non	DMS priority is non (If you choose "Non", the switch will never become the Controller switch)

<cr>

```
SM24T6DPA(config)# dms service-mode enabled priority high
SM24T6DPA(config)#
```

do

Run Exec mode commands in Config mode.

SYNTAX

do <LINE> {[<LINE>]}

Parameters

<LINE> Exec Command

EXAMPLE

```
SM24T6DPA(config)# do show vlan
VLAN  Name                               Ports
-----
1      default                            GigabitEthernet 1/1, GigabitEthernet 1/2,
GigabitEthernet 1/3,
                                           GigabitEthernet 1/4, GigabitEthernet 1/5
SM24T6DPA(config)#
```

dot1x

Configure IEEE Standard for port-based Network Access Control.

SYNTAX

```
dot1x authentication timer inactivity <v_10_to_100000>
dot1x authentication timer re-authenticate <v_1_to_3600>
dot1x feature { [ guest-vlan ] [ radius-qos ] [ radius-vlan ] }*1
dot1x guest-vlan <value>
dot1x guest-vlan supplicant
dot1x max-reauth-req <value>
dot1x re-authentication
dot1x system-auth-control
dot1x timeout quiet-period <v_10_to_1000000>
dot1x timeout tx-period <v_1_to_65535>
```

Parameters

authentication	Authentication
feature	Globally enables/disables a dot1x feature functionality
guest-vlan	Guest VLAN
max-reauth-req	Guest VLAN ID used when entering the Guest VLAN.
re-authentication	Set Re-authentication state
system-auth-control	Set the global NAS state
timeout	timeout
timer	timer
inactivity addresses.	Time in seconds between check for activity on successfully authenticated MAC addresses.
re-authenticate	The period between re-authentication attempts in seconds
<10-1000000>	seconds
<1-3600>	seconds
guest-vlan	Globally enables/disables state of guest-vlan
radius-qos	Globally enables/disables state of RADIUS-assigned QoS.
radius-vlan	Globally enables/disables state of RADIUS-assigned VLAN.
<1-4095>	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN.

supplicant	The switch remembers if an EAPOL frame has been received on the port for the life-time of the port.
<1-255>	number of times
quiet-period	Time in seconds before a failed MAC-address authentication gets a new authentication chance.
tx-period	The time between EAPOL retransmissions.
<10-1000000>	Seconds
<1-65535>	Seconds

EXAMPLE

```
SM24T6DPA(config)# dot1x authentication timer inactivity 1000
SM24T6DPA(config)# dot1x feature guest-vlan radius-qos radius-vlan
SM24T6DPA(config)# dot1x guest-vlan 33
SM24T6DPA(config)# dot1x max-reauth-req 3
SM24T6DPA(config)# dot1x re-authentication
SM24T6DPA(config)# dot1x system-auth-control
SM24T6DPA(config)# dot1x timeout quiet-period 3000
```

enable

Enable and configure password parameters.

SYNTAX

enable password [<level> <1-15>] <WORD>

enable secret { 0 | 5 } [< level> <1-15>] <WORD>

Parameters

password	Assign the privileged level clear password
secret	Assign the privileged level secret
WORD	The UNENCRYPTED (cleartext) password
level	Set exec level password
<1-15>	Level number
0	Specifies an UNENCRYPTED password will follow
5	Specifies an ENCRYPTED secret will follow

EXAMPLE

```
SM24T6DPA(config)# enable password level 10 999
SM24T6DPA(config)#
```

event

Configure Trap event severity level.

SYNTAX

```
event group <group_name> { level <lvl> | syslog { enable | disable } | trap { enable | disable } | smtp { enable | disable } }
```

Parameters

Group	Configure trap event severity level		
ACL	ACL-Log	AUTO-SAVING	Access-Mgmt
Auth-Failed	Cold-Start	Config-Info	DMS
Firmware-Upgrade	Import-Export	LACP	Link-Status
Login	Logout	Loop-Protect	Mgmt-IP-Change
Module-Change	NAS	Password-Change	Port-Security
SCP-Fail	SCP-Success	Spanning-Tree	Warm-Start
level	Severity level		
smtp	smtp mode		
syslog	syslog mode		
trap	trap mode		
<0-7>	<0> Emergency ,<1> Alert ,<2> Critical ,<3> Error ,<4> Warning ,<5> Notice ,<6> Informationl ,<7> Debug		
disable	smtp mode disable		
enable	smtp mode enable		
<cr>			

EXAMPLE

```
SM24T6DPA(config)# event group AUTO-SAVING level 5
SM24T6DPA(config)# event group AUTO-SAVING smtp enable
SM24T6DPA(config)#
```

exit

Exit from Config mode to Exec mode

SYNTAX

```
exit <cr>
```

Parameters

None.

EXAMPLE

```
SM24T6DPA(config)# exit
SM24T6DPA#
```


green-ethernet

Configure Green ethernet (Power reduction)

SYNTAX

green-ethernet eee optimize-for-power

Parameters

green-ethernet	Green ethernet (Power reduction)
eee	Powering down of PHYs when there is no traffic.
optimize-for-power	Set if EEE is to be optimized for least power consumption (else optimized for least traffic latency).

<cr>

EXAMPLE

```
SM24T6DPA(config)# green-ethernet eee optimize-for-power
SM24T6DPA(config)#
```

gvrp

Configure GVRP feature parameters.

SYNTAX

gvrp

gvrp max-vlans <1-4095>

gvrp time { [join-time <1-20>] [leave-time <60-300>] [leave-all-time <1000-5000>] }*1

Parameters

time config gvrp timer value in units of centi seconds [cs]

EXAMPLE

```
SM24T6DPA(config)# gvrp max-vlans 333
SM24T6DPA(config)# gvrp time join-time 13 leave-all-time 3000 leave-time 200
SM24T6DPA(config)#
```

hostname

Set system's network name.

SYNTAX

hostname < WORD >

Parameter

WORD This system's network name.

EXAMPLE

```
SM24T6DPA(config)# hostname abc
abc(config)#
```

interface

Select an interface to configure.

SYNTAX

interface (<port_type> [<plist>])

interface vlan <vlist>

Parameters

<port_type>	GigabitEthernet
vlan	VLAN interface configurations
<vlan_list>	List of VLAN interface numbers, 1-4095
<port_type_list>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA(config)# interface GigabitEthernet 1/1-26
SM24T6DPA(config-if)# interface vlan 3
SM24T6DPA(config-if-vlan)# ip address dhcp
SM24T6DPA(config-if-vlan)#
```

ip

Configure Internet Protocol.

SYNTAX

ip arp inspection

ip arp inspection entry interface <port_type> <in_port_type_id> <vlan_var> <mac_var> <ipv4_var>

ip arp inspection translate [interface <port_type> <in_port_type_id> <vlan_var> <mac_var> <ipv4_var>]

ip arp inspection vlan <in_vlan_list>

ip arp inspection vlan <in_vlan_list> logging { deny | permit | all }

ip dhcp excluded-address <low_ip> [<high_ip>]

ip dhcp pool <pool_name>

ip dhcp relay

ip dhcp relay information option

ip dhcp relay information policy { drop | keep | replace }

ip dhcp server

```

ip dhcp snooping
ip dns proxy
ip helper-address <v_ipv4_ucast>
ip http secure-redirect
ip http secure-server
ip igmp host-proxy [ leave-proxy ]
ip igmp snooping
ip igmp snooping vlan <v_vlan_list>
ip igmp ssm-range <v_ipv4_mcast> <ipv4_prefix_length>
ip igmp unknown-flooding
ip name-server { <v_ipv4_addr> | dhcp [ interface vlan <v_vlan_id> ] }
ip route <v_ipv4_addr> <v_ipv4_netmask> <v_ipv4_gw>
ip routing
ip source binding interface <port_type> <in_port_type_id> <vlan_var> <ipv4_var> <mac_var>
ip ssh
ip verify source
ip verify source translate

```

Parameters

arp	Address Resolution Protocol
dhcp	Dynamic Host Configuration Protocol
dns	Domain Name System
helper-address	DHCP relay server
http	Hypertext Transfer Protocol
igmp	Internet Group Management Protocol
name-server	Domain Name System
route	Add IP route
routing	Enable routing for IPv4 and IPv6
source	source command
ssh	Secure Shell
verify	verify command
inspection	ARP inspection
entry	arp inspection entry
interface	arp inspection entry interface config
<port_type>	Port type in Fast, Giga ethernet
<port_type_id>	Port ID in the format of switch-no/port-no
<vlan_id>	Select a VLAN id to configure

<mac_ucast>	Select a MAC address to configure
<ipv4_ucast>	Select an IP Address to configure
deny	log denied entries
permit	log permitted entries
all	log all entries
translate	arp inspection translate all entries
vlan	arp inspection vlan setting
<vlan_list>	arp inspection vlan list
relay	DHCP relay agent information
information	DHCP information option <Option 82>
option	DHCP option
information	DHCP information option(Option 82)
policy	Policy for handling the receiving DHCP packet already include the information option
drop	Drop the package when receive a DHCP message that already contains relay information
keep	Keep the original relay information when receive a DHCP message that already contains it
replace	Replace original relay info when receive a DHCP message that already contains it
server	Enable DHCP server
snooping	DHCP snooping
proxy	DNS proxy service
secure-redirect	Secure HTTP web redirection
secure-server	Secure HTTP web server
snooping	Snooping IGMP
<word16>	Profile name in 16 char's
vlan	IGMP VLAN
ssm-range	IPv4 address range of Source Specific Multicast
<ipv4_mcast>	Valid IPv4 multicast address
<4-32>	Prefix length ranges from 4 to 32
unknown-flooding	Flooding unregistered IPv4 multicast traffic
<ipv4_ucast>	A valid IPv4 unicast address
dhcp	Dynamic Host Configuration Protocol
interface	Select an interface to configure
vlan	VLAN Interface
<vlan_id>	VLAN identifier(s): VID
<ipv4_addr>	Network
<ipv4_netmask>	Netmask
<ipv4_addr>	Gateway

binding	ip source binding
interface	ip source binding entry interface config
<port_type>	* or Gigabitethernet
*	All switches or All ports
Gigabitethernet	1 Gigabitethernet Port
<port_type_id>	Port ID in the format of switch-no/port-no, ex 1/1-26 for Gigabitethernet
<vlan_id>	Select a VLAN id to configure
<ipv4_ucast>	Select an IP Address to configure
<ipv4_netmask>	Select a subnet mask to configure
<mac_ucast>	Select a MAC address to configure
source	verify source
limit	limit command
<0-2>	the number of limit
translate	ip verify source translate all entries
login	ARP inspection vlan logging mode config

EXAMPLE

```

SM24T6DPA(config)# ip arp inspection
SM24T6DPA(config)# ip dhcp relay
SM24T6DPA(config)# ip dns proxy
SM24T6DPA(config)# ip helper-address 192.168.1.1
SM24T6DPA(config)# ip http secure-server
SM24T6DPA(config)# ip igmp snooping vlan 3
SM24T6DPA(config)# ip name-server 192.168.1.6
SM24T6DPA(config)# ip route 192.168.1.1 255.255.255.0 192.168.1.100
SM24T6DPA(config)# ip routing
SM24T6DPA(config)# ip ssh
SM24T6DPA(config)# ip verify source translate
IP Source Guard:
    1. Translate 0 dynamic entries into static entries.

```

ipmc

Configure IPv4/IPv6 multicast.

SYNTAX

ipmc profile

ipmc profile <profile_name>

ipmc range <entry_name> { <v_ipv4_mcast> [<v_ipv4_mcast_1>] | <v_ipv6_mcast> [<v_ipv6_mcast_1>] }

Parameters

profile IPMC profile configuration

range A range of IPv4/IPv6 multicast addresses for the profile

< word16> Range entry name in 16 char's

<ipv4_mcast> Valid IPv4 multicast address

<ipv6_mcast> Valid IPv6 multicast address

EXAMPLE

```
SM24T6DPA(config)# ipmc profile test
SM24T6DPA(config-ipmc-profile)#
```

ipv6

IPv6 configuration commands.

SYNTAX

ipv6 mld host-proxy [leave-proxy]

ipv6 mld snooping

ipv6 mld snooping vlan <v_vlan_list>

ipv6 mld ssm-range <v_ipv6_mcast> <ipv6_prefix_length>

ipv6 mld unknown-flooding

ipv6 route <v_ipv6_subnet> { <v_ipv6_ucast> | interface vlan <v_vlan_id> <v_ipv6_addr> }

Parameters

mld	Multicasat Listener Discovery
route	Configure static routes
host-proxy	MLD proxy configuration
snooping	Snooping MLD
ssm-range	IPv6 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv6 multicast traffic
leave-proxy	MLD proxy for leave configuration
vlan	MLD VLAN
<v_vlan_list>	VLAN identifier(s): VID
<ipv6_mcast>	Valid IPv6 multicast address
X:X:X:X::X/<0-128>	IPv6 prefix x:x::y/z

EXAMPLE

```

SM24T6DPA(config)# ipv6 mld host-proxy leave-proxy
SM24T6DPA(config)# ipv6 mld snooping vlan 1
SM24T6DPA(config)#

```


lacp

Configure LACP settings.

SYNTAX

lacp system-priority <1-65535>

Parameters

system-priority	System priority
<1-65535>	Priority value, lower means higher priority

EXAMPLE

```
SM24T6DPA(config)# lacp system-priority 333
SM24T6DPA(config)#
```

line

Configure a terminal line.

SYNTAX

line { <0~16> | console 0 | vty <0~15> }

Parameters

<0~16>	List of line numbers
console	Console terminal line
0	Console Line number
vtty	Virtual terminal
<0~15>	List of vty numbers

EXAMPLE

```
SM24T6DPA(config)# line console 0
SM24T6DPA(config-line)#
```

lldp

Configure LACP parameters.

SYNTAX

lldp holdtime <2-10>

lldp med datum { wgs84 | nad83_navd88 | nad83_mllw }

lldp med fast <1-10>

lldp med location-tlv altitude { meters | floors } <word11>

lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-street-direction | trailing-street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment | floor | room-number | place-type | postal-community-name | p-o-box | additional-code } <string250>

lldp med location-tlv elin-addr <dword25>

lldp med location-tlv latitude { north | south } <word8>

lldp med location-tlv longitude { west | east } <word9>

lldp med media-vlan policy-list <range_list>

lldp med media-vlan-policy <0-31> { voice | voice-signaling | guest-voice-signaling | guest-voice | softphone-voice | video-conferencing | streaming-video | video-signaling } { tagged <vlan_id> | untagged } [l2-priority <0-7>] [dscp <0-63>]

lldp reinit <1-10>

lldp timer <5-32768>

lldp transmission-delay <1-8192>

Parameters

holdtime	Sets LLDP hold time (The neighbor switch will discard the LLDP info after "hold time" multiplied by "timer" seconds).
med	Media Endpoint Discovery.
reinit	LLDP tx reinitialization delay in seconds.
timer	Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds).
transmission-delay	Sets LLDP transmission-delay. LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds.)
<2-10>	2-10 seconds.
<1-10>	1-10 seconds.
<5-32768>	5-32768 seconds.
<1-8192>	1-8192 seconds.
datum	Datum (geodetic system) type.
fast	Number of times to repeat LLDP frame transmission at fast start.
location-tlv	LLDP-MED Location Type Length Value parameter.

media-vlan-policy	Use the media-vlan-policy to create a policy, which can be assigned to an interface.
nad83_mllw	Mean lower low water datum 1983
nad83_navd88	North American vertical datum 1983
wgs84	World Geodetic System 1984
altitude	Altitude parameter
meter	Altitude value
floors	Altitude value
civic-addr	Civic address information and postal information
country	The two-letter ISO 3166 country code in capital ASCII letters - Eg: DK, DE or US.
state	National subdivisions (state, canton, region, province, prefecture).
county	County, parish, gun (Japan), district.
city	City, township, shi (Japan) - Example: Copenhagen.
district	City division, borough, city district, ward, chou (Japan).
block	Neighbourhood, block.
street	Street - Example: Poppelvej.
leading-street-direction	Leading street direction - Example: N.
trailing-street-suffix	Trailing street suffix - Example: SW.
street-suffix	Street suffix - Example: Ave, Platz.
house-no	House number - Example: 21.
house-no-suffix	House number suffix - Example: A, 1/2.
landmark	Landmark or vanity address - Example: Columbia University.
additional-info	Additional location info - Example: South Wing.
name	Name (residence and office occupant) - Example: Flemming Jahn.
zip-code	Postal/zip code - Example: 2791.
building	Building (structure) - Example: Low Library.
apartment	Unit (Apartment, suite) - Example: Apt 42.
floor	Floor - Example: 4.
room-number	Room number - Example: 450F.
place-type	Place type - Example: Office.
postal-community-name	Postal community name - Example: Leonia.
p-o-box	Post office box (P.O. BOX) - Example: 12345.
additional-code	Additional code - Example: 1320300003.
<string250>	Value for the corresponding selected civic address.
elin-addr	Emergency Location ID Number, (e.g. E911 and others), as defined by TIA or NENA.
<dword25>	ELIN value
north	Setting latitude direction to north.

south	Setting latitude direction to south.
<word8>	Latitude degrees (0.0000-90.0000).
policy-list	Assignment of policies.
<range_list>	Policies to assign to the interface.
<0-31>	Policy id for the policy which is created.
voice	Create a voice policy.
voice-signaling	Create a voice signaling policy.
guest-voice-signaling	Create a guest voice signaling policy.
guest-voice	Create a guest voice policy.
softphone-voice	Create a softphone voice policy.
video-conferencing	Create a video conferencing policy.
streaming-video	Create a streaming video policy.
video-signaling	Create a video signaling policy.
tagged	The policy uses tagged frames.
<vlan_id>	The VLAN the policy uses tagged frames.
untagged	The policy uses un-tagged frames.
l2-priority	Layer 2 priority.
<0-7>	Priority 0-7
dscp	Differentiated Services Code Point.
<0-63>	DSCP value 0-63.

EXAMPLE

```

SM24T6DPA(config)# lldp holdtime 5
SM24T6DPA(config)# lldp med fast 5
SM24T6DPA(config)# lldp reinit 3
SM24T6DPA(config)# lldp timer 555
SM24T6DPA(config)# lldp transmission-delay 333
Note: According to IEEE 802.1AB-clause 10.5.4.2 the transmission-delay must
not be larger than LLDP timer * 0.25. LLDP timer changed to 13332

```

logging

Configure Syslog.

SYNTAX

logging host { <ipv4_ucast> | <hostname> }

logging level { info | warning | error }

logging on

Parameters

host	host
<ipv4_ucast>	IP address of the log server
<hostname>	Domain name of the log server
level	level
info	Information
warning	Warning
error	Error
on	Enable syslog server

EXAMPLE

```
SM24T6DPA(config)# logging level error
SM24T6DPA(config)# logging on
SM24T6DPA(config)#
```

loop-protect

Configure Loop protection parameters.

SYNTAX

loop-protect

loop-protect shutdown-time <0-604800>

loop-protect transmit-time <1-10>

Parameters

shutdown-time	Loop protection shutdown time interval
<0-604800>	Shutdown time in second
transmit-time	Loop protection transmit time interval
<1-10>	Transmit time in second

EXAMPLE

```
SM24T6DPA(config)# loop-protect
SM24T6DPA(config)# loop-protect shutdown-time 333
SM24T6DPA(config)# loop-protect transmit-time 3
SM24T6DPA(config)#
```

mac

Configure MAC table entries.

SYNTAX

mac address-table aging-time <0,10-1000000>

mac address-table static <mac_addr> vlan <vlan_id> interface <port_type> <port_type_list>

Parameters

address-table	Mac Address Table
aging-time	Mac address aging time
<0,10-1000000>	Aging time in seconds, 0 disables aging
static	Static MAC address
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095
interface	Select an interface to configure
<port_type>	Port type * or Gigabitethernet
*	All switches or All ports
Gigabitethernet	1 Gigabit Ethernet port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA(config)# mac address-table aging-time 3333
SM24T6DPA(config)#
```

map-api-key

Set Google Map key string.

SYNTAX

map-api-key <key_str>

Parameters

<word127>

EXAMPLE

```
SM24T6DPA(config)# map-api-key 04it2BTrue
SM24T6DPA(config)# do show map
Key   : 04it2BTrue
SM24T6DPA(config)#
```

monitor

Set monitor configuration.

SYNTAX

monitor destination interface <port_type> <port_type_id>

monitor source { interface <port_type> <port_type_list> | cpu } { both | rx | tx }

Parameters

destination	The destination port. That is the port that trafficed should be mirrored to.
interface	Interface to mirror traffic to.
source	The source port. That is the source port to be mirrored to the destination port.
interface	Mirror interface traffic.
<port_type>	1 Gigabit Ethernet port
*	All switches or all ports.
<port_type_list>	Port list in 1/1-26.
cpu	Mirror CPU traffic.
both	Setting source port to both will mirror both ingress and egress traffic.
rx	Setting source port to rx will mirror both ingress traffic.
tx	Setting source port to tx will mirror both egress traffic.
<port_type>	Port type in GigabitEthernet
<port_type_list>	Port list in 1/1-26 for GigabitEthernet

EXAMPLE

```

SM24T6DPA(config)# monitor destination interface GigabitEthernet 1/12
SM24T6DPA(config)# monitor source  cpu both
SM24T6DPA(config)#

```


mvr

Multicast VLAN Registration configuration.

SYNTAX**mvr**

mvr name <mvr_name> channel <profile_name>

mvr name <mvr_name> frame priority <cos_priority>

mvr name <mvr_name> frame tagged

mvr name <mvr_name> igmp-address <v_ipv4_ucast>

mvr name <mvr_name> last-member-query-interval <ipmc_lmqi>

mvr name <mvr_name> mode { dynamic | compatible }

mvr vlan <v_vlan_list> [name <mvr_name>]

mvr vlan <v_vlan_list> channel <profile_name>

mvr vlan <v_vlan_list> frame priority <cos_priority>

mvr vlan <v_vlan_list> frame tagged

mvr vlan <v_vlan_list> igmp-address <v_ipv4_ucast>

mvr vlan <v_vlan_list> last-member-query-interval <ipmc_lmqi>

mvr vlan <v_vlan_list> mode { dynamic | compatible }

Parameters

name	MVR multicast name
<word16>	MVR multicast VLAN name
channel	MVR channel configuration
<word16>	Profile name in 16 char's
frame	MVR control frame in TX
priority	Interface CoS priority
<0-7>	CoS priority ranges from 0 to 7
tagged	Tagged IGMP/MLD frames will be sent
igmp-address	MVR address configuration used in IGMP
<ipv4_ucast>	A valid IPv4 unicast address MVR multicast VLAN name
last-member-query-interval	Last Member Query Interval in tenths of seconds
<0-31744>	0 - 31744 tenths of seconds
mode	MVR mode of operation
dynamic	Dynamic MVR operation mode
compatible	Compatible MVR operation mode
vlan	MVR multicast vlan
<vlan_list>	MVR multicast VLAN list

channel	MVR channel configuration
<word16>	Profile name in 16 char's
frame	MVR control frame in TX
priority	Interface CoS priority
<0-7>	CoS priority ranges from 0 to 7
igmp-address	MVR address configuration used in IGMP
<ipv4_ucast>	A valid IPv4 unicast address
<vlan_list>	MVR multicast VLAN list
last-member-query-interval	Last Member Query Interval in tenths of seconds
<0-31744>	0 - 31744 tenths of seconds
compatible	Compatible MVR operation mode

EXAMPLE

```
SM24T6DPA(config)# mvr vlan 10 mode dynamic
SM24T6DPA(config)#
```

ntp

Configure NTP.

SYNTAX**ntp**

ntp server <1-5> ip-address <hostname>

ntp server <1-5> ip-address <ipv4_ucast>

ntp server <1-5> ip-address <ipv6_ucast>

Parameters

server Configure NTP server

<1-5> index number

ip-address ip address

<ipv4_ucast> ipv4 address

<ipv6_ucast> ipv6 address

<hostname> domain name

EXAMPLE

```
SM24T6DPA(config)# ntp server 3 ip-address 192.168.1.1
SM24T6DPA(config)#
```

port-security

Configure port security globally.

SYNTAX

port-security

port-security aging

port-security aging time <v_10_to_10000000>

Parameters

aging Time in seconds between check for activity on learned MAC addresses.

time Time in seconds between check for activity on learned MAC addresses.

<10-10000000> Seconds

EXAMPLE

```
SM24T6DPA(config)# port-security agin time 1000
SM24T6DPA(config)#
```

privilege

Configure command privilege level parameters.

SYNTAX

privilege { exec | configure | config-vlan | line | interface | if-vlan | ipmc-profile | snmps-host | stp-aggr | dhcp-pool | rfc2544-profile } level <privilege> <cmd>

Parameters

config-vlan	VLAN Configuration Mode
configure	Global configuration mode
dhcp-pool	DHCP Pool Configuration Mode
exec	Exec mode
if-vlan	VLAN Interface Mode
interface	Port List Interface Mode
ipmc-profile	IPMC Profile Mode
line	Line configuration mode
rfc2544-profile	RFC2544 Profile Mode
snmps-host	SNMP Server Host Mode
stp-aggr	STP Aggregation Mode
level	Set privilege level of command
<LINE>	Initial valid words and literals of the command to modify, in 128 char's

EXAMPLE

```
SM24T6DPA(config)# privilege config-vlan level 10 LINE
SM24T6DPA(config)# privilege configure level 10 LINE
SM24T6DPA(config)# privilege dhcp-pool level 10 LINE
SM24T6DPA(config)#
```

radius-server

Configure RADIUS server parameters.

SYNTAX

radius-server attribute 32 <line1-255>

radius-server attribute 4 <ipv4_ucast>

radius-server attribute 95 <ipv6_ucast>

radius-server deadtime <1-1440>

radius-server host { <word1-255> | <ipv4_ucast> | <ipv6_ucast> } [auth-port <0-65535>] [acct-port <0-65535>]
[timeout <1-1000>] [retransmit <1-1000>] [key <line1-63>]

radius-server key <line1-63>

radius-server retransmit <1-1000>

radius-server timeout <1-1000>

Parameters**Attribute**

deadtime	Time to stop using a RADIUS server that doesn't respond
host	Specify a RADIUS server
key	Set RADIUS encryption key
retransmit	Specify the number of retries to active server
timeout	Time to wait for a RADIUS server to reply
<Minutes : 1-1440>	Time in minutes
<Host4 : ipv4_ucast>	IPv4 address
<Host6 : ipv6_ucast>	IPv6 address
<HostName : word1-255>	Hostname
acct-port	UDP port for RADIUS accounting server
auth-port	UDP port for RADIUS authentication server
key	Server specific key (overrides default)
retransmit	Specify the number of retries to active server (overrides default)
timeout	Time to wait for this RADIUS server to reply (overrides default)
<AuthPort : 0-65535>	UDP port number
<Seconds : 1-1000>	Wait time in seconds
<Key : line1-63>	The shared key
<1-1000>	Number of retries for a transaction

EXAMPLE

```
SM24T6DPA(config)# radius-server host device key 12
SM24T6DPA(config)#
```

rmon

Configure Remote Monitoring.

SYNTAX

```
rmon alarm <1-65535> <WORD> <1-2147483647> { absolute | delta } rising-threshold <-2147483648-2147483647>
[ <0-65535> ] falling-threshold <-2147483648-2147483647> [ <0-65535> ] { [ rising | falling | both ] }
```

```
rmon alarm <1-65535> { ifInOctets | ifInUcastPkts | ifInNUcastPkts | ifInDiscards | ifInErrors | ifInUnknownProtos |
ifOutOctets | ifOutUcastPkts | ifOutNUcastPkts | ifOutDiscards | ifOutErrors } <uint> <1-2147483647> { absolute | delta }
rising-threshold <-2147483648-2147483647> [ <0-65535> ] falling-threshold <-2147483648-2147483647> [ <0-65535> ]
{ [ rising | falling | both ] }
```

```
rmon event <1-65535> [ log ] [ trap <word127> ] { [ description <line127> ] }
```

Parameters

alarm	Configure an RMON alarm
event	Configure an RMON event
<1-65535>	Alarm entry ID
<WORD>	MIB object to monitor
<1-2147483647>	Sample interval
absolute	Test each sample directly
delta	Test delta between samples
rising-threshold	Configure the rising threshold
<-2147483648-2147483647>	rising threshold value
<0-65535>	Event to fire on rising threshold crossing
falling-threshold	Configure the falling threshold
<-2147483648-2147483647>	falling threshold value
rising	Trigger alarm when the first value is larger than the rising threshold
falling	Trigger alarm when the first value is less than the falling threshold
both	Trigger alarm when the first value is larger than the rising threshold or less than the falling threshold (default)
ifInOctets	The total number of octets received on the interface, including framing characters
ifInUcastPkts	The number of uni-cast packets delivered to a higher-layer protocol
ifInNUcastPkts	The number of broad-cast and multi-cast packets delivered to a higher-layer protocol
ifInDiscards	The number of inbound packets that are discarded even the packets are normal
ifInErrors	The number of inbound packets that contained errors preventing them from being deliverable to a higher-layer protocol
ifInUnknownProtos	The number of the inbound packets that were discarded because of the unknown or un-support protocol

ifOutOctets	The number of octets transmitted out of the interface , including framing characters
ifOutUcastPkts	The number of uni-cast packets that request to transmit
ifOutNUcastPkts	The number of broad-cast and multi-cast packets that request to transmit
ifOutDiscards	The number of outbound packets that are discarded event the packets is normal
ifOutErrors	The The number of outbound packets that could not be transmitted because of errors
<uint>	ifIndex
<1-2147483647>	Sample interval
absolute	Test each sample directly
delta	Test delta between samples
rising-threshold	Configure the rising threshold

EXAMPLE

```
SM24T6DPA(config)# rmon alarm 10000 ifInErrors 10 9999 absolute rising-  
threshold 0 falling-threshold 0 both  
SM24T6DPA(config)#
```


sflow

Configure Statistics flow.

SYNTAX

```
sflow agent-ip { ipv4 <ipv4_addr> | ipv6 <ipv6_addr> }  
sflow collector-address{ <ipv4_addr> | <ipv6_addr> }  
sflow collector-port <1-65535>  
sflow max-datagram-size [ receiver <range_list> ] <200-1468>  
sflow timeout [ receiver <range_list> ] <0-2147483647>
```

Parameters

agent-ip	The agent IP address used as agent-address in UDP datagrams. Defaults to IPv4 loopback address.
ipv4	ipv4 address
ipv6	ipv6 address
<ipv4_addr>	ipv6 address
<ipv6_addr>	ipv4 address
collector-address	Collector address
collector-port	Collector UDP port
<1-65535>	Port Number
max-datagram-size	Maximum datagram size.
<200-1468>	Bytes
timeout	Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.
<0-2147483647>	Number in seconds

EXAMPLE

```
SM24T6DPA(config)# sflow agent-ip ipv4 192.168.1.2  
SM24T6DPA(config)# sflow collector-port 3  
SM24T6DPA(config)# sflow max-datagram-size 333  
SM24T6DPA(config)# sflow timeout 3333  
SM24T6DPA(config)#
```

smtp

Configure email parameters.

SYNTAX

smtp delete { server | username | sender | returnpath | mailaddress <index> }

smtp mailaddress <index> <mail_addr_name>

smtp returnpath <return_path>

smtp sender <sender_name>

smtp server <hostname>

smtp username <username> <password>

Parameters

server The SMTP server hostname (up to 47 characters describing email server).

username Up to 47 characters describing user name

sender Up to 47 characters describing sender

returnpath Up to 47 characters describing returnpath

mailaddress Up to 47 characters describing mail address

EXAMPLE

```
SM24T6DPA(config)# smtp mailaddress 1 ?  
    <mail_addr_name : word47>    Up to 47 characters describing mail address  
SM24T6DPA(config)# smtp mailaddress 1 jeffs@transition.com  
SM24T6DPA(config)#
```

system

Configure system parameters.

SYNTAX

system contact <v_line255>

system location <v_line255>

system name <v_line255>

Parameters

contact	Set the SNMP server's contact string
location	Set the SNMP server's location string
name	Set the SNMP server's system model name string
<line255>	Maximum number of 255 character strings

EXAMPLE

```
SM24T6DPA(config)# system contact 222
SM24T6DPA(config)# system location 333
SM24T6DPA(config)# system name GE
SM24T6DPA(config)#
```

tacacs-server

Configure TACACS+.

SYNTAX

tacacs-server deadtime <minutes>

tacacs-server host <host_name> [port <port>] [timeout <seconds>] [key <key>]

tacacs-server key <key>

tacacs-server timeout <seconds>

Parameters

deadtime	Time to stop using a TACACS+ server that doesn't respond
host	Specify a TACACS+ server
key	Set TACACS+ encryption key
timeout	Time to wait for a TACACS+ server to reply
<Minutes : 1-1440>	Time in minutes
<Key : line1-63>	The shared key
<Seconds : 1-1000>	Wait time in seconds
<word1-255>	Hostname
<ipv4_ucast>	IPv4 address
<ipv6_ucast>	IPv6 address
port	TCP port for TACACS+ server
<0-65535>	TCP port number

EXAMPLE

```
SM24T6DPA(config)# tacacs-server deadtime 300
SM24T6DPA(config)# tacacs-server host 192.168.1.2
SM24T6DPA(config)# tacacs-server key 33
SM24T6DPA(config)# tacacs-server timeout 300
SM24T6DPA(config)#
```

tsonline

Set tsonline URL configuration. Not supported in FW v6.54.3202 and above.

SYNTAX

url URL for TSONline button.

Parameters

url <line128> URL for TSONline button.

upnp

Set UpnP (universal plug-n-play) parameters.

SYNTAX

upnp

upnp advertising-duration <100-86400>

upnp ttl <1-255>

Parameters

advertising-duration Set advertising duration

ttl Set TTL value

<100-86400> advertising duration

<1-255> TTL value

EXAMPLE

```
SM24T6DPA(config)# upnp advertising-duration 8
SM24T6DPA(config)# upnp ttl 25
SM24T6DPA(config)#
```

username

Configure User Name Authentication.

SYNTAX

username <username> privilege <priv> password encrypted <encry_password>

username <username> privilege <priv> password admin

username <username> privilege <priv> password unencrypted <password>

Parameter

<Username : word31>	User name allows letters, numbers and underscores
privilege	Set user privilege level
<privilegeLevel : 0-15>	User privilege level
password	Specify the password for the user
encrypted	Specifies an ENCRYPTED password will follow
none	NULL password
unencrypted	Specifies an UNENCRYPTED password will follow
<Password : line31>	The UNENCRYPTED (Plain Text) user password. Any printable characters including space is accepted. Note that you have no chance to get the Plain Text password after this command. The system will always display the ENCRYPTED password.
<Password : word4-44>	The ENCRYPTED (hidden) user password. Notice the ENCRYPTED password will be decoded by system internally. You cannot directly use it as same as the Plain Text and it is not normally human-readable text.

EXAMPLE

```
SM24T6DPA(config)# username jefferson privilege 15
password admin
```

vlan

Configure VLAN commands.

SYNTAX

vlan <vlan_list>

vlan ethertype s-custom-port <0x0600-0xffff>

vlan protocol { { eth2 { <0x600-0xffff> | arp | ip | ipx | at } } | { snap { <0x0-0xfffff> | rfc_1042 | snap_8021h } <0x0-0xffff> } | { llc <0x0-0xff> <0x0-0xff> } } group <word16>

Parameters

<vlan_list>	ISL VLAN IDs 1-4095
ethertype	Ether type for Custom S-ports
protocol	Protocol-based VLAN commands
s-custom-port	Custom S-ports configuration
<0x0600-0xffff>	Ether type (Range: 0x0600-0xffff)
eth2	Ethernet-based VLAN commands
<0x600-0xffff>	Ether Type(Range: 0x600 - 0xFFFF)
arp	Ether Type is ARP
ip	Ether Type is IP
ipx	Ether Type is IPX
at	Ether Type is AppleTalk
snap	SNAP-based VLAN group
<0x0-0xfffff>	SNAP OUI (Range 0x000000 - 0FFFFFFF)
rfc_1042	SNAP OUI is rfc_1042
snap_8021h	SNAP OUI is 8021h
<0x0-0xffff>	PID (Range: 0x0 - 0xFFFF)
llc	LLC-based VLAN group
<0x0-0xff>	DSAP (Range: 0x00 - 0xFF)
<0x0-0xff>	SSAP (Range: 0x00 - 0xFF)
group	Protocol-based VLAN group commands
<word16>	Group Name (Range: 1 - 16 characters)

EXAMPLE

```
SM24T6DPA(config)# vlan ethertype s-custom-port
0x1111
SM24T6DPA(config)# vlan protocol eth2 arp group 123
```

voice

Configure Voice appliance attributes.

SYNTAX

voice vlan

voice vlan aging-time <aging_time>

voice vlan class { <traffic_class> | low | normal | medium | high }

voice vlan oui <oui> [description <description>]

voice vlan vid <vid>

Parameters

advertising-duration	Set advertising duration
vlan	Vlan for voice traffic
aging-time	Set secure learning aging time
<10-10000000>	Aging time, 10-10000000 seconds
class	Set traffic class
<0-7>	Traffic class value
oui	OUI configuration
<oui>	OUI value
description	Set description for the OUI
<line32>	Description line
vid	Set VLAN ID
<vlan_id>	VLAN ID, 1-4095

EXAMPLE

```
SM24T6DPA(config)# voice vlan aging-time 3333
SM24T6DPA(config)# voice vlan class 7
SM24T6DPA(config)# voice vlan vid 3333
SM24T6DPA(config)#
```


web

Web privelege configuration.

SYNTAX

web privilege group <CWORD> level { [cro <0-15>] [crw <0-15>] [sro <0-15>] [srw <0-15>] }

Parameters

privilege	Web privilege
group	Web privilege group
CWORD	Valid words are 'Aggregation' 'Debug' 'Dhcp_Client' 'Green_Ethernet' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MEP' 'MVR' 'Maintenance' 'Mirroring' 'NTP' 'Ports' 'Private_VLANs' 'QoS' 'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer' 'UPnP' 'VCL' 'VLAN_Translation' 'VLANs' 'Voice_VLAN' 'sFlow'
level	Web privilege group level
cro	Configuration Read-only level
crw	Configuration Read-write level
sro	Status/Statistics Read-only level
srw	Status/Statistics Read-write level

EXAMPLE

```
SM24T6DPA(config)# web privilege group ptp level sro
10
```

access-list

Table : configure – access-list Commands

<u>Command</u>	<u>Function</u>
ace	Access list entry
rate-limiter	Rate limiter

rate-limiter

Configure Rate limiter.

SYNTAX

access-list rate-limiter [<1~16>] { pps <0-3276700> | 100kbps <0-10000> }

Parameters

100kbps	100k bits per second
<RateLimiterList : 1~16>	Rate limiter ID
<PpsRate : 0-3276700>	Rate value
<0-10000>	Rate value

EXAMPLE

```
SM24T6DPA(config)# access-list rate-limiter 100kbps
111
SM24T6DPA(config)#
```

ace

Configure Access list entry.

SYNTAX

```

access-list ace{ update<1-256> | <1-256> } [action< deny | filter | permit >]
access-list ace{ update<1-256> | <1-256> } [dmac-type < any | broadcast | multicast | unicast >]
access-list ace{ update<1-256> | <1-256> } [frametype < any | arp | etype | ipv4 | ipv4-icmp | ipv4-tcp | ipv4-udp | ipv6 |
ipv6-icmp | ipv6-tcp | ipv6-udp >]
access-list ace{ update<1-256> | <1-256> } [ ingress] [ ingress interface { <port_type> <port_type_id> | <port_type>
<port_type_list> } | any } ]
access-list ace{ update<1-256> | <1-256> } [ logging [ disable ] ]
access-list ace{ update<1-256> | <1-256> } [ lookup [ disable ] ]
access-list ace{ update<1-256> | <1-256> } [ mirror [ disable ] ]
access-list ace{ update<1-256> | <1-256> } [ next { <1-256> | last } ]
access-list ace{ update<1-256> | <1-256> } [ policy <0-255> [ policy-bitmask <0x0-0xFF> ] ]
access-list ace{ update<1-256> | <1-256> } [ rate-limiter { <1-16> | disable } ]
access-list ace{ update<1-256> | <1-256> } [redirect | interface { <port_type> <port_type_id> | <port_type>
<port_type_list> } | disable } ]
access-list ace{ update<1-256> | <1-256> } [shutdown]
access-list ace{ update<1-256> | <1-256> } [ tag { tagged | untagged | any } ]
access-list ace{ update<1-256> | <1-256> } [ tag-priority { <0-7> | any } ]
access-list ace{ update<1-256> | <1-256> } [ vid { <1-4095> | any } ]

```

Parameters

action	Access list action
dmac-type	The type of destination MAC address
frametype	Frame type
ingress	Ingress
logging	Logging frame information
lookup	Second lookup
mirror	Mirror frame to destination mirror port
next	insert the current ACE before the next ACE ID
policy	Policy
rate-limiter	Rate limiter
redirect	Redirect frame to specific port
shutdown	Shutdown incoming port
tag	Tag

tag-priority	Tag priority
vid	VID field
deny	Deny
filter	Filter
permit	Permit
any	Don't-care the type of destination MAC address
broadcast	Broadcast destination MAC address
multicast	Multicast destination MAC address
unicast	Unicast destination MAC address
any	Don't-care the frame type
arp	Frame type of ARP
etype	Frame type of etype
ipv4	Frame type of IPv4
ipv4-icmp	Frame type of IPv4 ICMP
ipv4-tcp	Frame type of IPv4 TCP
ipv4-udp	Frame type of IPv4 TCP
ipv6	Frame type of IPv4
ipv6-icmp	Frame type of IPv6 ICMP
ipv6-tcp	Frame type of IPv6 TCP
ipv6-udp	Frame type of IPv6 UDP
interface	Select an interface to configure
<port_type>	Gigabitethernet
*	All switches or All ports
Gigabitethernet	1 Gigabit Ethernet port
<port_type_id>	Port ID in the format of switch-no/port-no ex, 1/1-26 for Gigabitethernet
<port_type>	* or Gigabitethernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26
any	Don't-care the ingress interface
<0-255>	Policy ID
policy-bitmask	The bitmask for policy ID
<0x0-0xFF>	The value of policy bitmask
<1-4095>	The value of VID field
<0-7>	The value of tag priority

EXAMPLE

```
SM24T6DPA(config)# access-list ace 10 action deny
SM24T6DPA(config)#
```

3-1 no

Negate a command or set its defaults.

Table : configure – no Commands (FW v v6.54.3202 and above)

<u>Command</u>	<u>Function</u>
debug	Debugging functions
port-security	Port security (psec limit)
terminal	Set terminal line parameters

Example: No debug prompt:

```
SM24T6DPA# no debug prompt
SM24T6DPA#
```

Example: No port-security:

```
SM24T6DPA# no port-security shutdown ?
    interface
    <cr>
SM24T6DPA# no port-security shutdown interface ?
    *                All switches or All ports
    GigabitEthernet  1 Gigabit Ethernet Port
SM24T6DPA# no port-security shutdown interface GigabitEthernet 1/4-7
SM24T6DPA#
```

Example: No terminal:

```
SM24T6DPA# no terminal?
    terminal  Set terminal line parameters
SM24T6DPA# no terminal ?
    editing      Enable command line editing
    exec-timeout Set the EXEC timeout
    history      Control the command history function
    length       Set number of lines on a screen
    width        Set width of the display terminal
    size         Set history buffer size
    <cr>
SM24T6DPA# no terminal history size
SM24T6DPA#
```

Table : configure – no Commands (before FW v v6.54.3202)

<u>Command</u>	<u>Function</u>
aaa	Authentication, Authorization and Accounting
access	Access management
access-list	Access list
aggregation	Aggregation mode
banner	Define a login banner
clock	Configure time-of-day clock
dot1x	IEEE Standard for port-based Network Access Control
enable	Modify enable password parameters
gvrp	Enable GVRP feature
hostname	Set system's network name
interface	none
ip	Internet Protocol
ipmc	IPv4/IPv6 multicast configuration
ipv6	IPv6 configuration commands
lACP	LACP settings
lldp	LLDP configurations.
logging	Syslog
loop-protect	Loop protection configuration
mac	MAC table entries/configuration
monitor	Set monitor configuration.
mvr	Multicast VLAN Registration configuration
ntp	Configure NTP
port-security	Enable/disable port security globally.
Privilege	Command privilege parameters
qos	Quality of Service
radius-server	Configure RADIUS
rmon	Remote Monitoring
sflow	Statistics flow.
snmp-server	Enable SNMP server
spanning-tree	STP Bridge
system	Set the SNMP server's configurations
tacacs-server	Configure TACACS+
upnp	Set UPnP's configurations
username	Establish User Name Authentication

vlan	Vlan commands
voice	Voice appliance attributes
web	Web

aaa

Authentication, Authorization and Accounting

SYNTAX

no aaa authentication login { console | telnet | ssh | http }

Parameters

authentication	Authentication
login	Login
console	Disable Console
http	Disable HTTP
ssh	Disable SSH
telnet	Disable Telnet

EXAMPLE

```
SM24T6DPA(config)# no aaa authentication login ssh
SM24T6DPA(config)#
```

access

Access management

SYNTAX

no access management [<1~16>]

no access management

Parameters

management	Access management configuration
<1~16>	ID of access management entry

EXAMPLE

```
SM24T6DPA(config)# no access management
SM24T6DPA(config)#
```


access-list

Access list

SYNTAX

no access-list ace <1~256>

Parameters

ace Access list entry

<AceId : 1-256> ACE ID

EXAMPLE

```
SM24T6DPA(config)# access-list ace 1
SM24T6DPA(config)#
```

aggregation

Aggregation mode

SYNTAX

no aggregation mode

Parameter

mode Traffic distribution mode

EXAMPLE

```
SM24T6DPA(config)# no aggregation mode
SM24T6DPA(config)#
```

banner

Define a login banner

SYNTAX

no banner [motd]

no banner exec

no banner login

Parameter

exec Set EXEC process creation banner

login Set login banner

motd Set Message of the Day banner

EXAMPLE

```
SM24T6DPA(config)# no banner login
SM24T6DPA(config)#
```

clock

Configure time-of-day clock

SYNTAX

no clock summer-time

no clock timezone

Parameters

summer-time Configure summer (daylight savings) time

timezone Configure time zone

EXAMPLE

```
SM24T6DPA(config)# no clock summer-time
SM24T6DPA(config)# no clock timezone
SM24T6DPA(config)#
```

dot1x

IEEE Standard for port-based Network Access Control

SYNTAX

```
no dot1x authentication timer inactivity
no dot1x authentication timer re-authenticate
no dot1x feature { [ guest-vlan ] [ radius-qos ] [ radius-vlan ] }
no dot1x guest-vlan [supplicant]
no dot1x max-reauth-req
no dot1x re-authentication
no dot1x system-auth-control
no dot1x timeout quiet-period
no dot1x timeout tx-period
```

Parameters

authentication	Authentication
feature	Globally enables/disables a dot1x feature functionality
guest-vlan	Guest VLAN
max-reauth-req	The number of time a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN.
re-authentication	Set Re-authentication state
system-auth-control	Set the global NAS state
timeout	timeout
timer	timer
inactivity	Time in seconds between check for activity on successfully authenticated MAC addresses.
re-authenticate	The period between re-authentication attempts in seconds
guest-vlan	Globally enables/disables state of guest-vlan
radius-qos	Globally enables/disables state of RADIUS-assigned QoS.
radius-vlan	Globally enables/disables state of RADIUS-assigned VLAN.
supplicant	The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL frame has not been received on the port for the life-time of the port. If enabled (checked), the switch will consider entering the Guest VLAN even if an EAPOL frame has been received on the port for the life-time of the port.
quiet-period	Time in seconds before a MAC-address that failed authentication gets a new authentication chance.

tx-period the time between EAPOL retransmissions.

EXAMPLE

```
SM24T6DPA(config)# no dot1x authentication timer inactivity
SM24T6DPA(config)# no dot1x feature guest-vlan radius-qos radius-
vlan
SM24T6DPA(config)# no dot1x guest-vlan supplicant
SM24T6DPA(config)# no dot1x max-reauth-req
SM24T6DPA(config)# no dot1x re-authentication
SM24T6DPA(config)# no dot1x system-auth-control
SM24T6DPA(config)# no dot1x timeout tx-period
```

enable

Modify enable password parameters

SYNTAX

no enable password [level <1-15>]

no enable secret [0|5 { level <1-15> }]

Parameters

password	Assign the privileged level clear password
secret	Assign the privileged level secret
0	Specifies an UNENCRYPTED password will follow
5	Specifies an ENCRYPTED password will follow
level	Set exec level password
<1-15>	Level number

EXAMPLE

```
SM24T6DPA(config)# no enable secret level 15
SM24T6DPA(config)# no enable password level 15
SM24T6DPA(config)#
```

gvrp

Enable GVRP feature.

SYNTAX

gvrp

gvrp max-vlans <maxvlans>

gvrp time { [join-time <jointime>] [leave-time <leavetime>] [leave-all-time <leavealltime>] }*1

Parameters

max-vlans	Number of simultaneously VLANs that GVRP can control
time	Config GARP protocol timer parameters. IEEE 802.1D-2004, clause 12.11.
join-time	Set GARP protocol parameter JoinTime. See IEEE 802.1D-2004, clause 12.11
leave-all-time	Set GARP protocol parameter LeaveAllTime. See IEEE 802.1D-2004, clause 12.11
leave-time	Set GARP protocol parameter LeaveTime. See IEEE 802.1D-2004, clause 12.11

EXAMPLE

```
SM24T6DPA(config)#no gvrp max-vlans 1
SM24T6DPA(config)#no gvrp time join-time 10
SM24T6DPA(config)#no gvrp time leave-all-time 2000
SM24T6DPA(config)#no gvrp time leave-time 70
SM24T6DPA(config)#
```

hostname

Set system's network name.

SYNTAX

no hostname

EXAMPLE

```
SM24T6DPA(config)# no hostname
SM24T6DPA(config)#
```

interface

SYNTAX

no interface vlan < vlan_list >

Parameter

vlan Vlan interface configurations

<vlan_list> Vlan list

EXAMPLE

```
SM24T6DPA(config)# no interface vlan 10
SM24T6DPA(config)#
```

Ip

Set system's network name.

SYNTAX

no ip arp inspection

no ip arp inspection entry interface Gigabitethernet <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>

no ip arp inspection vlan <vlan_list> [logging]

no dhcp excluded-address [<ip_address> [<ip_address>]]

no dhcp pool <WORD>

no ip dhcp relay [information {option| policy }]

no ip dhcp server

no ip dhcp snooping

no ip dns proxy

no ip helper-address

no ip http secure-redirect

no ip http secure-server

no ip igmp host-proxy [leave-proxy]

no ip igmp snooping

no ip igmp snooping vlan [<vlan_list>]

no ip igmp ssm-range

no ip igmp unknown-flooding

no ip name-server

no ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>

no ip routing

no ip source binding interface GigabitEthernet <port_type_id> <vlan_id> <ipv4_ucast>{ <ipv4_netmask>|<mac_ucast>}

no ip ssh

no ip verify source

Parameters

arp	Address Resolution Protocol
inspection	ARP inspection
entry	arp inspection entry
interface	arp inspection entry interface config
GigabitEthernet	1 Gigabit Ethernet Port
<port_type_id>	Port ID in the format of switch-no/port-no, 1/1-26 for Gigabitetherne
<vlan_id>	Select a VLAN id to configure
<mac_ucast>	Select a MAC address to configure
<ipv4_ucast>	Select an IP Address to configure
vlan	arp inspection vlan setting
<vlan_list>	arp inspection vlan list
logging	ARP inspection vlan logging mode config
dhcp	Dynamic Host Configuration Protocol
excluded-address	Prevent DHCP from assigning certain address
<ip_address>	Low IP address and High IP address
<WORD>	Pool name in 32 characters
pool	Configure DHCP address pools
relay	DHCP relay agent configuration
server	enable DHCP server
snoping	DHCP snooping
information	DHCP information option(Option 82)
option	DHCP option
policy	Policy for handling the receiving DHCP packet already include the information option
snooping	DHCP snooping
dns	Domain Name System
proxy	DNS proxy service
helper-address	None.
http	Hypertext Transfer Protocol
secure-redirect	Secure HTTP web rediction
secure-server	Secure HTTP web server
igmp	Internet Group Management Protocol

host-proxy	IGMP proxy configuration
leave-proxy	IGMP proxy for leave configuration
snooping	Snooping IGMP
vlan	IGMP VLAN
<vlan_list>	VLAN identifier(s): VID
ssm-range	IPv4 address range of Source Specific Multicast
unknown-flooding	Flooding unregistered IPv4 multicast traffic
name-server	Domain Name System
Route	none
<ipv4_addr>	Network
<ipv4_netmask>	Netmask
<ipv4_gateway>	Gateway
routing	Disable routing for IPv4 and IPv6
source	source command
binding	ip source binding
interface	ip source binding entry interface config
Gigabitethernet	1 Gigabitethernet port
<port_type_id>	Port ID in the format of switch-no/port-no, ex., 1/1-26 for Gigabitethernet
<vlan_id>	Select a VLAN id to configure
<ipv4_ucast>	Select an IP Address to configure
<ipv4_netmask>	Select a subnet mask to configure
<mac_ucast>	Select a MAC address to configure
ssh	Secure Shell
verify	verify command
source	verify source

EXAMPLE


```
SM24T6DPA(config)# no ip arp inspection vlan 3 logging
SM24T6DPA(config)# no ip dhcp relay information option
SM24T6DPA(config)# no ip dns proxy
SM24T6DPA(config)# no ip helper-address
SM24T6DPA(config)# no ip http secure-redirect
SM24T6DPA(config)# no ip igmp snooping
SM24T6DPA(config)# no ip name-server
SM24T6DPA(config)# no ip routing
SM24T6DPA(config)# no ip ssh
SM24T6DPA(config)# no ip verify source
SM24T6DPA(config)#
```

ipmc

IPv4/IPv6 multicast configuration

SYNTAX

no ipmc profile <Profilename : word16>

no ipmc range <Entryname : word16>

Parameters

profile IPMC profile configuration

<Profilename : word16> Profile name in 16 char's

range A range of IPv4/IPv6 multicast addresses for the profile

<Entryname : word16> Range entry name in 16 char's

EXAMPLE

```
SM24T6DPA(config)# no ipmc profile
```

ipv6

IPv6 configuration commands

SYNTAX

no ipv6 mld host-proxy [leave-proxy]

no ipv6 mld snooping

no ipv6 mld snooping [vlan <vlan_list>]

no ipv6 mld ssm-range

no ipv6 mld unknown-flooding

no ipv6 route <ipv6_subnet> { <ipv6_ucast> | interface vlan <vlan_id> <ipv6_linklocal> }

Parameters

mld Multicasat Listener Discovery

host-proxy MLD proxy configuration

leave-proxy MLD proxy for leave configuration

snooping Snooping MLD

vlan MLD VLAN

<vlan_list> VLAN identifier(s): VID

ssm-range IPv6 address range of Source Specific Multicast

unknown-flooding Flooding unregistered IPv6 multicast traffic

route Configure static routes

<ipv6_subnet> IPv6 prefix x:x::y/z

<ipv6_ucast> IPv6 unicast address (except link-local address) of next-hop

interface Select an interface to configure

vlan VLAN Interface

<vlan_id> VLAN identifier(s): VID

<ipv6_linklocal> IPv6 link-local address of next-hop

EXAMPLE

```
SM24T6DPA(config)# no ipv6 mld snooping
SM24T6DPA(config)#
```

lacp

LACP settings

SYNTAX

no lacp system-priority <1-65535>

Parameters

system-priority System priority

<1-65535> Priority value, lower means higher priority

EXAMPLE

```
SM24T6DPA(config)# no lacp system-priority 10000
SM24T6DPA(config)#
```

lldp

LLDP configurations..

SYNTAX

```
no lldp holdtime
no lldp med datum
no lldp med fast
no lldp med location-tlv altitude
no lldp med location-tlv civic-addr { country | state | county | city | district | block | street | leading-street-direction | trailing-
street-suffix | street-suffix | house-no | house-no-suffix | landmark | additional-info | name | zip-code | building | apartment
| floor | room-number | place-type | postal-community-name | p-o-box | additional-code }
no lldp med location-tlv elin-addr
no lldp med location-tlv latitude
no lldp med location-tlv longitude
no lldp med media-vlan-policy <0~31>
no lldp reinit
no lldp timer
no lldp transmission-delay
```

Parameterd

holdtime	Sets LLDP hold time (The neighbor switch will discarded the LLDP information after "hold time" multiplied with "timer" seconds).
med	Media Endpoint Discovery.
reinit	Sets LLDP reinitialization delay.
timer	Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds).
tlv-select	Which optional TLVs to transmit.
transmission-delay	Sets LLDP transmission-delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds.)
datum	Set datum to default value.
fast	Set fast repeat count to default value.
location-tlv	LLDP-MED Location Type Length Value parameter.
media-vlan-policy	Use the media-vlan-policy to create a policy, which can be assigned to an interface.
altitude	Setting altitude to default.
civic-addr	Civic address information and postal information
elin-addr	Set elin address to default value.
latitude	Setting Latitude parameter to default.

longitude	Setting longitude to default.
additional-code	Additional code - Example: 1320300003.
additional-info	Additional location info - Example: South Wing.
apartment	Unit (Apartment, suite) - Example: Apt 42.
block	Neighbourhood, block.
building	Building (structure) - Example: Low Library.
city	City, township, shi (Japan) - Example: Copenhagen.
country	The two-letter ISO 3166 country code in capital ASCII letters - Example: DK, DE or US.
county	County, parish, gun (Japan), district.
district	City division, borough, city district, ward, chou (Japan).
floor	Floor - Example: 4.
house-no	House number - Example: 21.
house-no-suffix	House number suffix - Example: A, 1/2.
landmark	Landmark or vanity address - Example: Columbia University.
leading-street-direction	Leading street direction - Example: N.
name	Name (residence and office occupant) - Example: Flemming Jahn.
p-o-box	Post office box (P.O. BOX) - Example: 12345.
place-type	Place type - Example: Office.
postal-community-name	Postal community name - Example: Leonia.
room-number	Room number - Example: 450F.
state	National subdivisions (state, canton, region, province, prefecture).
street	Street - Example: Poppelvej.
street-suffix	Street suffix - Example: Ave, Platz.
trailing-street-suffix	Trailing street suffix - Example: SW.
zip-code	Postal/zip code - Example: 2791.
<0~31>	Policy to delete.

EXAMPLE

```

SM24T6DPA(config)# no lldp holdtime
SM24T6DPA(config)# no lldp med location-tlv civic-addr floor
SM24T6DPA(config)# no lldp reinit
SM24T6DPA(config)# no lldp timer
SM24T6DPA(config)# no lldp transmission-delay
SM24T6DPA(config)#

```

logging

Syslog.

SYNTAX

no logging host

no logging on

Parameters

host host

on Enable syslog server

EXAMPLE

```
SM24T6DPA(config)# no logging host
SM24T6DPA(config)# no logging on
SM24T6DPA(config)#
```

loop-protect

Loop protection configuration

SYNTAX

no loop-protect

no loop-protect shutdown-time

no loop-protect transmit-time

Parameters

shutdown-time Loop protection shutdown time interval

transmit-time Loop protection transmit time interval

EXAMPLE

```
SM24T6DPA(config)# no loop-protect shutdown-time
SM24T6DPA(config)# no loop-protect transmit-time
SM24T6DPA(config)#
```

mac

MAC table entries/configuration

SYNTAX

no mac address-table aging-time [<0,10-1000000>]

no mac address-table static <mac_addr> vlan <vlan_id> interface {*|Gigabitethernet [<port_type_list>]}

Parameters

address-table	Mac table entries configuration/table
aging-time	Mac address aging time
<0,10-1000000>	Aging time in seconds, 0 disables aging
static	Static MAC address
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN keyword
<vlan_id>	VLAN IDs 1-4095
interface	Select an interface to configure
Gigabitethernet	1 Gigabit Ethernet port
<port_type_list>	Port list in 1/1-26 for Gigaethernet

EXAMPLE

```
SM24T6DPA(config)# no mac address-table aging-time 10000
SM24T6DPA(config)#
```

monitor

Set monitor configuration.

SYNTAX

no monitor destination

no monitor source { interface Gigabitethernet <port_type_list> | cpu}

Parameters

Destination

source The source port(s). That is the ports to be mirrored to the destination port.

cpu Mirror CPU traffic.

interface Mirror Interface traffic.

Gigabitethernet 1 Gigabit Ethernet Port

<port_type_list> Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA(config)# no monitor destination
SM24T6DPA(config)# no monitor source cpu
SM24T6DPA(config)#
```


mvr

Multicast VLAN Registration configuration.

SYNTAX

```
no mvr
no mvr name <word16> channel
no mvr name <word16> frame priority
no mvr name <word16> frame tagged
no mvr name <word16> igmp-address
no mvr name <word16> last-member-query-interval
no mvr name <word16> mode
no mvr vlan <vlan_list>
no mvr vlan <vlan_list> channel
no mvr vlan <vlan_list> frame priority
no mvr vlan <vlan_list> frame tagged
no mvr vlan <vlan_list> igmp-address
no mvr vlan <vlan_list> last-member-query-interval
no mvr vlan <vlan_list> mode [{channel | frame | igmp-address | last-member-query-interval}]
```

Parameters

name	MVR multicast name
<word16>	MVR multicast VLAN name
channel	MVR channel configuration
frame	MVR control frame in TX
priority	Interface CoS priority
tagged	Tagged IGMP/MLD frames will be sent
igmp-address	MVR address configuration used in IGMP
last-member-query-interval	Last Member Query Interval in tenths of seconds
mode	MVR mode of operation
vlan	MVR multicast vlan
<vlan_list>	MVR multicast VLAN list

EXAMPLE

```
SM24T6DPA(config)# no mvr vlan 12 mode
SM24T6DPA(config)#
```

ntp

Configure NTP.

SYNTAX

no ntp

no ntp server <1-5>

Parameters

server Configure NTP server

<1-5> index number

EXAMPLE

```
SM24T6DPA(config)# no ntp server 2
SM24T6DPA(config)#
```

port-security

Enable/disable port security globally.

SYNTAX

no port-security

no port-security aging

no port-security aging time

Parameters

aging Enable/disable port security aging.

time Time in seconds between check for activity on learned MAC addresses.

EXAMPLE

```
SM24T6DPA(config)# no port-security aging time
SM24T6DPA(config)#
```

radius-server

Configure RADIUS.

SYNTAX

no radius-server attribute {32 | 4 | 95}

no radius-server deadtime

no radius-server host { <word1-255> | <ipv4_ucast> | <ipv6_ucast> } [auth-port <0-65535>] [acct-port <0-65535>]

no radius-server key

no radius-server retransmit

no radius-server timeout

Parameters

Attribute	{32 4 95}
deadtime	Time to stop using a RADIUS server that doesn't respond
host	Specify a RADIUS server
key	Set RADIUS encryption key
retransmit	Specify the number of retries to active server
timeout	Time to wait for a RADIUS server to reply

EXAMPLE

```
SM24T6DPA(config)# no radius-server attribute 4
SM24T6DPA(config)# no radius-server deadtime
SM24T6DPA(config)# no radius-server key
SM24T6DPA(config)# no radius-server retransmit
SM24T6DPA(config)# no radius-server timeout
SM24T6DPA(config)#
```

rmon

Remote Monitoring.

SYNTAX

no rmon alarm <alarm : 1-65535>

no rmon event<event : 1-65535>

Parameter

alarm Configure an RMON alarm

event Configure an RMON event

<alarm : 1-65535> Alarm entry ID

<event: 1-65535> Event entry ID

EXAMPLE

```
SM24T6DPA(config)# no rmon alarm 1000
SM24T6DPA(config)#
```

sflow

Statistics flow.

SYNTAX

no sflow agent-ip

no sflow collector-address

no sflow collector-port

no sflow max-datagram-size

no sflow timeout

Parameter

agent-ip	Sets the agent IP address used as agent-address in UDP datagrams to 127.0.0.1.
collector-address	Collector address
collector-port	Collector UDP port
max-datagram-size	Maximum datagram size.
timeout	Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.

EXAMPLE

```
SM24T6DPA(config)# no sflow agent-ip
SM24T6DPA(config)# no sflow collector-address
SM24T6DPA(config)# no sflow collector-port
SM24T6DPA(config)# no sflow max-datagram-size
SM24T6DPA(config)# no sflow timeout
SM24T6DPA(config)#
```

snmp-server

Enable SNMP server.

SYNTAX

```

no snmp-server
no snmp-server access <Groupname : word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv }
no snmp-server community v2c
no snmp-server community v3 <Community : word127>
no snmp-server contact
no snmp-server engined-id local
no snmp-server host <Conf : word32>
no snmp-server location
no snmp-server security-to-group model { v1 | v2c | v3 } name <Securityname : word32>
no snmp-server trap
no snmp-server user <Username : word32> engine-id <Engineid : word10-32>
no snmp-server version
no snmp-server view <Viewname : word32> <Oidsubtree : word255>

```

Parameters

access	access configuration
<Groupname : word32>	group name
model	security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
any	any security model
level	security level
auth	authNoPriv Security Level
noauth	noAuthNoPriv Security Level
priv	authPriv Security Level
community	Set the SNMP community
contact	Clear the SNMP server's contact string
engined-id	Set SNMP engine ID
host	Set SNMP host's configurations
location	Clear the SNMP server's location string
security-to-group	security-to-group configuration
trap	Set trap's configurations

user	user who can access SNMP server
version	Set the SNMP server's version
view	MIB view configuration
<Community : word127>	
local	Set SNMP local engine ID
<ConfName : word32>	Name of the host configuration
model	security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
name	security user
<SecurityName : word32>	security user name
<Username : word32>	name of user
engine-id	engine ID
<Engineid : word10-32>	engine ID octet string
<Viewname : word32>	MIB view name
<Oidsubtree : word255>	MIB view OID

EXAMPLE

```

SM24T6DPA(config)# no snmp-server access 333 model any level auth
SM24T6DPA(config)# no snmp-server community v2c
SM24T6DPA(config)# no snmp-server engined-id local
SM24T6DPA(config)# no snmp-server host 333
SM24T6DPA(config)# no snmp-server location
SM24T6DPA(config)# no snmp-server security-to-group model v2c name
132
SM24T6DPA(config)# no snmp-server trap
SM24T6DPA(config)# no snmp-server version
SM24T6DPA(config)#

```

spanning-tree

STP Bridge.

SYNTAX

no spanning-tree edge bpd-filter
no spanning-tree edge bpd-guard
no spanning-tree mode
no spanning-tree mst <instance> priority
no spanning-tree mst <instance> vlan
no spanning-tree mst forward-time
no spanning-tree mst max-age
no spanning-tree mst max-hops
no spanning-tree mst name
no spanning-tree recovery interval
no spanning-tree transmit hold-count

Parameters

edge	Edge ports
mode	STP protocol mode
mst	STP bridge instance
recovery	The error recovery timeout
transmit	BPDU to transmit
bpd-filter	Enable BPDU filter (stop BPDU tx/rx)
bpd-guard	Enable BPDU guard
<Instance : 0-7>	instance 0-7 (CIST=0, MST2=1...)
priority	Priority of the instance
forward-time	Delay between port states
max-age	Max bridge age before timeout
max-hops	MSTP bridge max hop count
name	Name keyword
vlan	VLAN keyword
interval	The interval
hold-count	Max number of transmit BPDUs per sec
<Holdcount : 1-10>	1-10 per sec, 6 is default

EXAMPLE

```
SM24T6DPA(config)# no spanning-tree edge bpdu-filter
SM24T6DPA(config)# no spanning-tree mode
SM24T6DPA(config)# no spanning-tree mst max-age
SM24T6DPA(config)# no spanning-tree recovery interval
SM24T6DPA(config)# no spanning-tree transmit hold-count
SM24T6DPA(config)#
```

tacacs-server

Negate TACACS+.

SYNTAX

no tacacs-server deadtime

no tacacs-server host <host_name> [port <port>]

no tacacs-server key

no tacacs-server timeout

Parameters

deadtime	Time to stop using a TACACS+ server that doesn't respond
host	Specify a TACACS+ server
<Hostname : word1-255>	Host name or IP address
key	Set TACACS+ encryption key
timeout	Time to wait for a TACACS+ server to reply
key	Server specific key (overrides default)
port	TCP port for TACACS+ server
timeout	Time to wait for this TACACS+ server to reply (overrides default)
<Port : 0-65535>	TCP port number

EXAMPLE

```
SM24T6DPA(config)# no tacacs-server deadtime
SM24T6DPA(config)# no tacacs-server host 192.168.1.1 port 10000
SM24T6DPA(config)# no tacacs-server key
SM24T6DPA(config)# no tacacs-server timeout
SM24T6DPA(config)#
```

upnp

Set UPnP's configurations.

SYNTAX

no upnp

no upnp advertising-duration

no upnp ttl

Parameter

advertising-duration Set advertising duration

ttl Set TTL value

EXAMPLE

```
SM24T6DPA(config)# no upnp advertising-duration
SM24T6DPA(config)# no upnp ttl
SM24T6DPA(config)#
```

username

Establish User Name Authentication.

SYNTAX

no username <Username : word31>

Parameter

<Username : word31> User name allows letters, numbers and underscores

EXAMPLE

```
SM24T6DPA(config)# no username admin
SM24T6DPA(config)#
```

vlan

Negate VLAN commands.

SYNTAX

```
no vlan protocol { { eth2 { <0x600-0xffff> | arp | ip | ipx | at } } | { snap { <0x0-0xfffff> | rfc_1042 | snap_8021h } <0x0-0xffff> } } | llc <0x0-0xff> <0x0-0xff> } } group <word16>
no vlan { [ ethertype s-custom-port ] | <vlan_list> }
```

Parameter

protocol	Protocol-based VLAN commands
eth2	Ethernet-based VLAN commands
<0x600-0xffff>	Ether Type(Range: 0x600 - 0xFFFF)
arp	Ether Type is ARP
ip	Ether Type is IP
ipx	Ether Type is IPX
at	Ether Type is AppleTalk
snap	SNAP-based VLAN group
<0x0-0xfffff>	SNAP OUI (Range 0x000000 - 0FFFFFFF)
rfc_1042	SNAP OUI is rfc_1042
snap_8021h	SNAP OUI is 8021h
<0x0-0xffff>	PID (Range: 0x0 - 0xFFFF)
llc	LLC-based VLAN group
<0x0-0xff>	DSAP (Range: 0x00 - 0xFF)
<0x0-0xff>	SSAP (Range: 0x00 - 0xFF)
group	Protocol-based VLAN group commands
<word16>	Group Name (Range: 1 - 16 characters)
<vlan_list>	Vlan list
ethertype	
s-custom-port	

EXAMPLE

```
SM24T6DPA(config)# no vlan 3
SM24T6DPA(config)# no vlan ethertype s-custom-port
SM24T6DPA(config)#
```

voice

Voice appliance attributes.

SYNTAX

no voice vlan

no voice vlan aging-time

no voice vlan class

no voice vlan oui <oui>

no voice vlan vid

Parameters

vlan	Vlan for voice traffic
aging-time	Set secure learning aging time
class	Set traffic class
oui	OUI configuration
<oui>	Traffic class value
vid	Set VLAN ID

EXAMPLE

```
SM24T6DPA(config)# no voice vlan vid
SM24T6DPA(config)# no voice vlan class
SM24T6DPA(config)# no voice vlan aging-time
SM24T6DPA(config)#
```

web

Negate Web.

SYNTAX

no web privilege group [<group_name>] level

Parameters

privilege	Web privilege
group	Web privilege group
<CWORD>	Valid words are 'Aggregation' 'Debug' 'Dhcp_Client' 'Diagnostics' 'EEE' 'GARP' 'GVRP' 'Green_Ethernet' 'IP2' 'IPMC_Snooping' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MEP' 'MVR' 'Maintenance' 'Mirroring' 'NTP' 'Ports' 'Private_VLANs' 'QoS' 'RPC' 'Security' 'Spanning_Tree' 'System' 'Timer' 'UPnP' 'VLANs' 'Voice_VLAN' 'XXRP' 'sFlow'
level	Web privilege group level

EXAMPLE

```
SM24T6DPA(config)# no web privilege group LACP level
SM24T6DPA(config)#
```

3-2 qos

Table : configure – qos Commands

<u>Command</u>	<u>Function</u>
map	Global QoS Map/Table
qce	QoS Control Entry
storm	Storm policer

map

Configure Global QoS Map/Table.

SYNTAX

```
qos map cos-dscp <0~7> dpl <dpl : 0~1> dscp { <DscpNum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }
```

```
qos map dscp-classify { <dscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }
```

```
qos map dscp-cos { < dscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } cos <Cos : 0-7> dpl <dpl>
```

```
qos map dscp-egress-translation { < DscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } <Dpl : 0~1> to { <Dscpnum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }
```

```
qos map dscp-ingress-translation { < DscpNum : 0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } } to { < DscpNum : 0-63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } }
```

Parameters

cos-dscp	Map for cos to dscp
dscp-classify	Map for dscp classify enable
dscp-cos	Map for dscp to cos
dscp-egress-translation	Map for dscp egress translation
dscp-ingress-translation	Map for dscp ingress translation
dpl	Specify drop precedence level
<Dpl : 0~1>	Specific drop precedence level or range
dscp	Specify DSCP
<DscpNum : 0-63>	Specific DSCP
cos	Specify class of QoS

<Cos : 0-7>	Specific class of QoS
af11	Assured Forwarding PHB AF11(DSCP 10)
af12	Assured Forwarding PHB AF12(DSCP 12)
af13	Assured Forwarding PHB AF13(DSCP 14)
af21	Assured Forwarding PHB AF21(DSCP 18)
af22	Assured Forwarding PHB AF22(DSCP 20)
af23	Assured Forwarding PHB AF23(DSCP 22)
af31	Assured Forwarding PHB AF31(DSCP 26)
af32	Assured Forwarding PHB AF32(DSCP 28)
af33	Assured Forwarding PHB AF33(DSCP 30)
af41	Assured Forwarding PHB AF41(DSCP 34)
af42	Assured Forwarding PHB AF42(DSCP 36)
af43	Assured Forwarding PHB AF43(DSCP 38)
be	Default PHB(DSCP 0) for best effort traffic
cs1	Class Selector PHB CS1 precedence 1(DSCP 8)
cs2	Class Selector PHB CS2 precedence 2(DSCP 16)
cs3	Class Selector PHB CS3 precedence 3(DSCP 24)
cs4	Class Selector PHB CS4 precedence 4(DSCP 32)
cs5	Class Selector PHB CS5 precedence 5(DSCP 40)
cs6	Class Selector PHB CS6 precedence 6(DSCP 48)
cs7	Class Selector PHB CS7 precedence 7(DSCP 56)
ef	Expedited Forwarding PHB(DSCP 46)
va	Voice Admit PHB(DSCP 44)

EXAMPLE

```
SM24T6DPA(config)# qos map cos-dscp 5 dpl 1 dscp 20
SM24T6DPA(config)#
```


qce

Configure QoS Control Entry.

SYNTAX

qos qce refresh

```

qos qce { [ update ] } <Id : 1-256> [ { next <Id : 1-256> } | last ] [ ingress interface *|Gigabitethernet <PORT_LIST> ]
[ tag { tagged | untagged | any } ] [ vid { <vlan_list> | any } ] [ pcpc { <pcpc> | any } ] [ dei { <Dpl : 0-1> | any } ] [ smac
{ <mac_addr> | <oui> | any } ] [ dmac-type { unicast | multicast | broadcast | any } ] [ frametype { any | { etype [ { <0x600-
0x7ff,0x801-0x86dc,0x86de-0xffff> | any } ] } | llc [ dsap { <0-0xff> | any } ] [ ssap { <0-0xff> | any } ] [ control { <0-0xff> |
any } ] } ] { snap [ { <0-0xffff> | any } ] } ] { ipv4 [ proto { <0-255> | tcp | udp | any } ] [ sip { <ipv4_subnet> | any } ] [ dscp
{ <0~63> | { be | af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 |
cs6 | cs7 | ef | va } | any } ] [ frag { yes | no | any } ] [ sport { <0~65535> | any } ] [ dport { <0~65535> | any } ] } ] { ipv6
[ proto { <0-255> | tcp | udp | any } ] [ sip { <ipv4_subnet> | any } ] [ dscp { <0~63> | { be | af11 | af12 | af13 | af21 | af22 |
af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } | any } ] [ sport { <0~65535> |
any } ] [ dport { <0~65535> | any } ] } ] } [ action { [ cos { <0-7> | default } ] [ dpl { <0-1> | default } ] [ dscp { <0-63> | { be |
af11 | af12 | af13 | af21 | af22 | af23 | af31 | af32 | af33 | af41 | af42 | af43 | cs1 | cs2 | cs3 | cs4 | cs5 | cs6 | cs7 | ef | va } |
default } ] } ]

```

Parameters

<Id : 1-256>	QCE ID
refresh	Refresh QCE tables in hardware
update	Update an existing QCE
action	Specify action
dei	Specify DEI (Drop Eligible Indicator)
dmac-type	Specify DMAC type
frametype	Specify frame type
ingress	Ingress interfaces
last	Place QCE at the end
next	Place QCE before the next QCE ID
pcp	Specify PCP (Priority Code Point)
smac	Specify SMAC. If 'qos qce dmac-dip' is set, this parameter specifies the DMAC
tag	Specify tag options
vid	Specify VLAN ID
cos	Specify class of service
dpl	Specify drop precedence level

dscp	Specify DSCP
cos	Specify class of service
<Cos : 0-7>	Specific class of service
default	Keep default class of service
<Dpl : 0-1>	Specific drop precedence level
default	Keep default drop precedence level
<Dscp : 0-63>	Specific DSCP
af11	Assured Forwarding PHB AF11(DSCP 10)
af12	Assured Forwarding PHB AF12(DSCP 12)
af13	Assured Forwarding PHB AF13(DSCP 14)
af21	Assured Forwarding PHB AF21(DSCP 18)
af22	Assured Forwarding PHB AF22(DSCP 20)
af23	Assured Forwarding PHB AF23(DSCP 22)
af31	Assured Forwarding PHB AF31(DSCP 26)
af32	Assured Forwarding PHB AF32(DSCP 28)
af33	Assured Forwarding PHB AF33(DSCP 30)
af41	Assured Forwarding PHB AF41(DSCP 34)
af42	Assured Forwarding PHB AF42(DSCP 36)
af43	Assured Forwarding PHB AF43(DSCP 38)
be	Default PHB(DSCP 0) for best effort traffic
cs1	Class Selector PHB CS1 precedence 1(DSCP 8)
cs2	Class Selector PHB CS2 precedence 2(DSCP 16)
cs3	Class Selector PHB CS3 precedence 3(DSCP 24)
cs4	Class Selector PHB CS4 precedence 4(DSCP 32)
cs5	Class Selector PHB CS5 precedence 5(DSCP 40)
cs6	Class Selector PHB CS6 precedence 6(DSCP 48)
cs7	Class Selector PHB CS7 precedence 7(DSCP 56)
default	Keep default DSCP
ef	Expedited Forwarding PHB(DSCP 46)
va	Voice Admit PHB(DSCP 44)
any	Any
broadcast	Broadcast
multicast	Multicast
unicast	Unicast
etype	Ethernet frames
ipv4	IPv4 frames

ipv6	IPv6 frames
llc	LLC frames
snap	SNAP frames
<Etype : 0x600-0x7ff,0x801-0x86dc,0x86de-0xffff>	Specific EtherType
interface	Interfaces
<Next : 1-256>	The next QCE ID
<Pcp : pcp>	Specific PCP (0-7) or range (0-1, 2-3, 4-5, 6-7, 0-3 or 4-7)
<Smac : mac_addr>	Specific SMAC (XX-XX-XX-XX-XX-XX)
tagged	Tagged frames only
untagged	Untagged frames only
<Vid : vlan_list>	Specific VLAN ID or range
interface	Interfaces
Gigabitethernet	1 Gigabit Ethernet Port
<PORT_LIST>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA(config)# qos qce 100 action cos 2 frame-type snap
SM24T6DPA(config)#
```

storm

Storm policer.

SYNTAX

```
qos storm { unicast | multicast | broadcast } <Rate : 1,2,4,8,16,32,64,128,256,512,1024> [ kfps ]
```

Parameters

broadcast	Police broadcast frames
multicast	Police multicast frames
unicast	Police unicast frames
<Rate : 1,2,4,8,16,32,64,128,256,512,1024>	Policer rate (default fps)
kfps	Rate is kfps

EXAMPLE

```
SM24T6DPA(config)# qos storm broadcast 256 kfps
SM24T6DPA(config)#
```

3-3 snmp-server

Configure SNMP server's parameters.

SYNTAX

snmp-server

Table : configure –snmp-server Commands

Command	Function
access	access configuration
community	Set the SNMP community
contact	Set the SNMP server's contact string
engine-id	Set SNMP engine ID
host	Set SNMP host's configurations
location	Set the SNMP server's location string
security-to-group	security-to-group configuration
trap	Set trap's configurations
user	Set the SNMPv3 user's configurations
version	Set the SNMP server's version
view	MIB view configuration

access

access configuration.

SYNTAX

snmp-server access <GroupName : word32> model { v1 | v2c | v3 | any } level { auth | noauth | priv } [read <ViewName : word255>] [write <WriteName : word255>]

Parameters

<GroupName : word32>	group name
model	security model
any	any security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
level	security level
auth	authNoPriv Security Level
noauth	noAuthNoPriv Security Level
priv	authPriv Security Level
read	specify a read view for the group
write	specify a write view for the group

<ViewName : word255> read view name

<WriteName : word255> write view name

EXAMPLE

```
SM24T6DPA(config)# snmp-server access text model v2c level noauth
write text
SM24T6DPA(config)#
```

community

Configure SNMP community parameters.

SYNTAX

snmp-server community v2c <Community : word127> [ro | rw]

snmp-server community v3 <word127> [<ipv4_addr> <ipv4_netmask>]

Parameters

v2c	SNMPv2c
<Community : word127>	Community word
ro	Read only
rw	Read write
v3	SNMPv3
<Community : word127>	Community word
<ipv4_addr>	IPv4 address
<ipv4_netmask>	IPv4 netmask

EXAMPLE

```
SM24T6DPA(config)# snmp-server community v2c text
SM24T6DPA(config)#
```

contact

Set the SNMP server's contact string.

SYNTAX

snmp-server contact <line255>

Parameters

contact Set the SNMP server's contact string

<line255> contact string

EXAMPLE

```
SM24T6DPA(config)# snmp-server contact text
SM24T6DPA(config)#
```

engine-id

Set SNMP engine ID.

SYNTAX

snmp-server engine-id local <Engineid : word10-32>

Parameters

local Set SNMP local engine ID

<Engineid : word10-32> local engine ID

EXAMPLE

```
SM24T6DPA(config)# snmp-server engine-id local 1234567891
SM24T6DPA(config)#
```

host

Set SNMP host's configurations.

SYNTAX

snmp-server host <word32>

Parameter

<word32> Name of the host configuration

EXAMPLE

```
SM24T6DPA(config)# snmp-server host text
SM24T6DPA(config-snmps-host)#
```

location

Set the SNMP server's location string.

SYNTAX

snmp-server location <line255>

Parameter

<line255> location string

EXAMPLE

```
SM24T6DPA(config)# snmp-server location text
SM24T6DPA(config)#
```

security-to-group

Configure security-to-group parameters.

SYNTAX

snmp-server security-to-group model { v1 | v2c | v3 } name <SecurityName : word32> group <GroupName : word32>

Parameters

model	security model
v1	v1 security model
v2c	v2c security model
v3	v3 security model
name	security user
<SecurityName : word32>	security user name
group	security group
<GroupName : word32>	security group name

EXAMPLE

```
SM24T6DPA(config)# snmp-server security-to-group model v2c name text
group text
SM24T6DPA(config)#
```

trap

Set trap's configurations.

SYNTAX

snmp-server trap

EXAMPLE

```
SM24T6DPA(config)# snmp-server trap
SM24T6DPA(config)#
```

user

Configure SNMPv3 user's parameters.

SYNTAX

snmp-server user <Username : word32> engine-id <Engineid : word10-32> [{ md5 <Md5Passwd : word8-32> | sha <ShaPasswd : word8-40> } [priv { des | aes } <word8-32>]]

Parameters

<Username : word32>	Username
engine-id	engine ID
<Engineid : word10-32>	Engine ID octet string
md5	Set MD5 protocol
<Md5Passwd : word8-32>	MD5 password
sha	Set SHA protocol
<ShaPasswd word8-40>	SHA password
priv	Set Privacy
des	Set DES protocol
aes	Set AES protocol
<word8-32>	Set privacy password

EXAMPLE

```
SM24T6DPA(config)# snmp-server user text engine-id 1234567891 md5
12345678 priv aes 12345678
SM24T6DPA(config)#
```


version

Set the SNMP server's version.

SYNTAX

snmp-server version { v1 | v2c | v3 }

Parameters

v1 SNMPv1

v2c SNMPv2c

v3 SNMPv3

EXAMPLE

```
SM24T6DPA(config)# snmp-server version v2c
SM24T6DPA(config)#
```

view

MIB view configuration.

SYNTAX

snmp-server view <ViewName : word32> <OldSubtree : word255> { include | exclude }

Parameters

<ViewName : word32> MIB view name

<OldSubtree : word255> MIB view OID

include Included type from the view

exclude Excluded type from the view

EXAMPLE

```
SM24T6DPA(config)# snmp-server view text .1 include
SM24T6DPA(config)#
```

3-4 spanning-tree

Configure Spanning Tree protocol (STP) parameters.

Table : configure –spanning-tree Commands

<u>Command</u>	<u>Function</u>
aggregation	Aggregation mode
edge	Edge ports
mode	STP protocol mode
mst	STP bridge instance
recovery	The error recovery timeout
transmit	BPDUs to transmit

aggregation

Configure Aggregation mode.

SYNTAX

spanning-tree aggregation

EXAMPLE

```
SM24T6DPA(config)# spanning-tree aggregation
SM24T6DPA(config-stp-aggr) #
```

edge

Edge ports.

SYNTAX

spanning-tree edge bpdu-filter

spanning-tree edge bpdu-guard

Parameters

bpdu-filter Enable BPDU filter (stop BPDU tx/rx)

bpdu-guard Enable BPDU guard

EXAMPLE

```
SM24T6DPA(config)# spanning-tree edge bpdu-filter
SM24T6DPA(config) #
```

mode

Configure STP protocol mode.

SYNTAX

spanning-tree mode { stp | rstp | mstp }

Parameters

mstp Multiple Spanning Tree (802.1s)

rstp Rapid Spanning Tree (802.1w)

stp 802.1D Spanning Tree

EXAMPLE

```
SM24T6DPA(config)# spanning-tree mode stp
SM24T6DPA(config)#
```

mst

Configure STP bridge instance.

SYNTAX

spanning-tree mst <Instance : 0-7> priority <Prio : 0-61440>

spanning-tree mst < Instance : 0-7> vlan <vlan_list>

spanning-tree mst forward-time <Fwdtime : 4-30>

spanning-tree mst max-age <Maxage : 6-40> [forward-time <Fwdtime : 4-30>]

spanning-tree mst max-hops <Maxhops : 6-40>

spanning-tree mst name <Name : word32> revision <0-65535>

Parameters

<Instance : 0-7> instance 0-7 (CIST=0, MST2=1...)

forward-time Delay between port states

max-age Max bridge age before timeout

max-hops MSTP bridge max hop count

name Name keyword

priority Priority of the instance

vlan VLAN keyword

<Prio : 0-61440> Range in seconds

<vlan_list> Range of VLANs

<Fwdtime : 4-30> Range in seconds

<Maxage : 6-40> Range in seconds

<Maxhops : 6-40>	Hop count range
<Name : word32>	Name of the bridge
revision	Revision keyword
<0-65535>	Revision number

EXAMPLE

```
SM24T6DPA(config)# spanning-tree mst 7 vlan 10
SM24T6DPA(config)#
```

recovery

Configure error recovery timeouts.

SYNTAX

spanning-tree recovery interval <Interval : 30-86400>

Parameters

interval	The interval
<Interval : 30-86400>	Range in seconds

EXAMPLE

```
SM24T6DPA(config)# spanning-tree recovery interval 50
SM24T6DPA(config)#
```

transmit

Configure BPDUs to transmit.

SYNTAX

spanning-tree transmit hold-count <Holdcount : 1-10>

Parameters

hold-count	Max number of transmit BPDUs per sec
<Holdcount : 1-10>	1-10 per sec, 6 is default

EXAMPLE

```
SM24T6DPA(config)# spanning-tree transmit hold-count 5
SM24T6DPA(config)#
```

4. Copy Commands

Copy from source to destination. **Note:** password security is changed at firmware version v6.54.3202. You are unable to login if downgrading the switch to older firmware versions or loading an old config file in the new firmware (unless you execute a reload default by pushing the Reset button on the switch to gain access back to the switch).

SYNTAX

```
copy { startup-config | running-config | <source_path> } { startup-config | running-config |  
<destination_path> } [ syntax-check ] [ { merge | replace } ]
```

Parameters

flash: filename tftp://server/path-and-filename	File in FLASH or on TFTP server
running-config	Currently running configuration
startup-config	Startup configuration
 	Output modifiers
merge	merge source file with running-config
replace	replace running-config with source file, default action
syntax-check	Perform syntax check on source configuration
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# copy running-config startup-config syntax-check merge  
Building configuration...
```

```
SM24T6DPA# copy startup-config running-config syntax-check |  
include
```

5. Debug Commands

Debugging functions.

SYNTAX

debug prompt text

debug gvrp msti

debug gvrp protocol-state interface (<port_type> [<v_port_type_list>]) vlan <v_vlan_list>

debug gvrp statistic

debug prompt <debug_prompt>

Parameters

prompt	Set prompt for testing
WORD	Word for prompt in 32 char's
gvrp	Debug for the GVRP protocol
prompt	Set prompt for testing
msti	MSTI state
protocol-state	State of Applicant, Registrar and LeaveAll state machines
statistic	statistic
WORD	Word for prompt in 32 char's
*	All switches or All ports
GigabitEthernet	1 Gigabit Ethernet Port
PORT_LIST	Port list in 1/1-26
Vlan	
<vlan_list>	VLAN or VLANs for which information shall be shown

EXAMPLE

```
SM24T6DPA# debug ?
  gvrp      Debug for the GVRP protocol
  prompt    Set prompt for testing
SM24T6DPA# debug gvrp ?
  msti      MSTI state
  protocol-state  State of Applicant, Registrar and LeaveAll state machines
  statistic  statistic
SM24T6DPA# debug prompt ?
  WORD      Word for prompt in 32 char's
SM24T6DPA# debug gvrp protocol-state interface GigabitEthernet 1/22 vlan 100
----- 1 1
          |<----- State of: ----->||<--- Timer [cs]: -->|
Sw Port Vlan Applicant Registrar LeaveAll txPDU leave leaveall GIP-Context
SM24T6DPA#
```

6. Delete Commands

Delete one file in flash: file system.

SYNTAX

Delete <Path : word>

Parameter

<Path : word> Name of file to delete

EXAMPLE

```
SM24T6DPA# delete text
SM24T6DPA#
```

7. DIR Commands

Directory of all files in flash: file system

SYNTAX

Dir [| begin | exclude | include <LINE>]

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# dir
Directory of flash:
  r- 2011-01-01 00:00:00      720 default-config
  rw 2011-01-01 00:00:11    1777 startup-config
2 files, 2497 bytes total.
```


8. Disable Commands

Turn off privileged commands.

SYNTAX

disable <0-15>

Parameter

<0-15> Privilege level

EXAMPLE

```
SM24T6DPA# disable 10
SM24T6DPA#
```

9. Do Commands

Run exec commands in config mode.

SYNTAX

Do <LINE>{[LINE]}

Parameter

LINE Exec Command

EXAMPLE

```
SM24T6DPA# do show clock
System Time      : 2011-01-01T00:03:44+00:00
```

10. DOT1X Commands

IEEE Standard for port-based Network Access Control.

SYNTAX

dot1x initialize [interface (<port_type> [<plist>])]

Parameters

initialize	Force re-authentication immediately
interface	Interface
*	All switches or All ports
Gigabitethernet	1 GigabitEthernet port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# dot1x initialize interface GigabitEthernet 1/1-26
```

11. Enable Commands

Turn on Privileged command mode.

Syntax

Enable <0-15>

Parameter

<0-15> Choose privileged level

EXAMPLE

```
SM24T6DPA# enable 10
```

```
SM24T6DPA#
```

12. Firmware Commands

Firmware upgrade/swap. **Note:** password security is changed at firmware version v6.54.3202. You are unable to login if downgrading the switch to older firmware versions or loading an old config file in the new firmware (unless you execute a reload default by pushing the Reset button on the switch to gain access back to the switch).

Syntax

firmware swap

firmware upgrade < TFTPServer_path_file : word>

Parameters

swap Swap between Active and Alternate firmware image.

upgrade Firmware upgrade

<TFTPServer_path_file : word> TFTP Server IP address, path and file name for the server with the new image.

EXAMPLE

```
SM24T6DPA# firmware upgrade tftp://192.168.1.1/path/GEL2706
Programming image...
SM24T6DPA#
```

13. No Commands

Negate a command or set its defaults.

Syntax

no debug prompt

no debug prompt

no port-security shutdown [interface (<port_type> [<v_port_type_list>])]

no terminal editing

no terminal exec-timeout

no terminal history size

no terminal length

no terminal width

Parameters

debug	Debugging functions
prompt	Clear prompt for testing
debug	Debugging functions
port-security	Port security (psec limit)
terminal	Set terminal line parameters

EXAMPLE

```
SM24T6DPA# no debug prompt
```

```
SM24T6DPA#
```

```
SM24T6DPA# no ?
```

debug	Debugging functions
port-security	Port security (psec limit)
terminal	Set terminal line parameters

14. PING Commands

Send ICMP echo messages.

Syntax

```
ping ip <v_ip_addr> [ repeat <count> ] [ size <size> ] [ interval <seconds> ]
```

```
ping ipv6 <v_ipv6_addr> [ repeat <count> ] [ size <size> ] [ interval <seconds> ] [ interface vlan <v_vlan_id> ]
```

Parameters

ip	IP (ICMP) echo
<word1-255>	ICMP destination address
repeat	Specify repeat count
<Count : 1-60>	1-60; Default is 5
size	Specify datagram size
<Size : 2-1452>	2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
interval	Specify repeat interval
<Seconds : 0-30>	0-30; Default is 0
ipv6	IPv6 (ICMPv6) echo
<ipv6_addr>	ICMPv6 destination address
repeat	Specify repeat count
<1-60>	1-60; Default is 5
size	Specify datagram size
<2-1452>	2-1452; Default is 56 (excluding MAC, IP and ICMP headers)
interval	Specify repeat interval
<0-30>	0-30; Default is 0
interface	Select an interface to configure
vlan	VLAN Interface
<vlan_id>	VLAN identifier(s): VID

EXAMPLE

```
SM24T6DPA# ping ip 33 interval 22 repeat 33 size 444
PING server 0.0.0.33, 444 bytes of dataititalize interfac
```

15. Reload Commands

Reload system.

Syntax

reload { { { warm } [sid <usid>] } | { defaults [keep-ip] } }

Parameters

- cold** Reload cold, i.e. reboot.
- defaults** Reload defaults without rebooting.
- keep-ip** Attempt to keep VLAN1 IP setup.
- defaults** Reload defaults without rebooting.
- warm** Reload warm (CPU restart only).
- keep-ip** Attempt to keep VLAN1 IP setup.
- <cr>**

EXAMPLE

```
SM24T6DPA# reload defaults
% Reloading defaults. Please stand by.
SM24T6DPA# reload cold
% Cold reload in progress, please stand by.
SM24T6DPA# +M25PXX : Init device with JEDEC ID 0x20BA19.
Luton26 board detected (VSC7427 Rev. D).

RedBoot(tm) bootstrap and debug environment [ROMRAM]
Non-certified release, version 1_15a-Vitesse - built 18:36:46, Sep  9 2014

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```


16. Send Commands

Send a message to other tty lines.

Syntax

```
send { * | <session_list> | console 0 | vty <vty_list> } <message>
```

Parameters

*	All tty lines
<0~16>	Send a message to multiple lines
console	Primary terminal line
0	Send a message to a specific line
vty	Virtual terminal
<0~15>	Send a message to multiple lines
<LINE>	Message to be sent to lines, in 128 char's

EXAMPLE

```
SM24T6DPA# send * yes,i do
Enter TEXT message. End with the character 'y'.

y

-----

*** Message from line 0:
yes,i do

-----

SM24T6DPA#
```

17. Show Commands

Show running system information.

Table : SHOW Commands

aaa	access	access-list	aggregation	bonjour	clock	dhcp
dot1x	event	green-ethernet	history	interface	ip	ipmc
ipv6	lcp	line	lldp	logging	loop-protect	mac
map-api-key	mvr	ntp	platform	port-security	privilege	pvlan
qos	radius-server	rmon	running-config	sflow	smtp	snmp
spanning-tree	switchport	system	tacacs-server	terminal	upnp	user-
privilege	users	version	vlan	voice	web	

aaa

Show Login methods.

SYNTAX

show aaa [| {begin | exclude | include } <LINE>]

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show aaa
console : local
telnet  : local
ssh     : local
http    : local
https   : no
SM24T6DPA#
```

access

Show Access management.

SYNTAX

show access management [statistics | <access_id_list>]

Parameters

management Access management configuration

statistics Statistics data

<AccessidList : 1~16> ID of access management entry

EXAMPLE

```
SM24T6DPA# show access management
```

```
Switch access management mode is disabled
```

```
W: WEB/HTTPS
```

```
S: SNMP
```

```
T: TELNET/SSH
```

Idx	VID	Start IP Address	End IP Address	W	S	T
---	---	-----	-----	---	---	---

```
SM24T6DPA# show access management statistics
```

```
Access Management Statistics:
```

HTTP	Receive:	0	Allow:	0	Discard:	0
HTTPS	Receive:	0	Allow:	0	Discard:	0
SNMP	Receive:	0	Allow:	0	Discard:	0
TELNET	Receive:	0	Allow:	0	Discard:	0
SSH	Receive:	0	Allow:	0	Discard:	0

```
SM24T6DPA#
```

access-list

Show Access list.

SYNTAX

```
show access-list [ interface [ * | Gigabitethernet <PORT_LIST> ] ] [ rate-limiter [ <RateLimiterList : 1~16> ] ] [ ace
statistics [ <Aceld : 1~256> ] ]
show access-list ace-status [ static ] [ loop-protect ] [ dhcp ] [ upnp ] [ arp-inspection ] [ mep ] [ ipmc ] [ ip-source-guard ]
[ ip-mgmt ] [ conflicts ]
```

Parameters

interface	Select an interface to configure
*	All Switches or All Ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26
rate-limiter	Rate limiter
< RateLimiterList : 1~16>	Rate limiter ID
ace	Access list entry
statistics	Traffic statistics
<Aceld : 1~256>	ACE ID
ace-status	The local ACEs status
static	The ACEs that are configured by users manually
loop-protect	The ACEs that are configured by Loop Protect module
dhcp	The ACEs that are configured by DHCP module
upnp	The ACEs that are configured by UPnP module
arp-inspection	The ACEs that are configured by ARP Inspection module
mep	The ACEs that are configured by MEP module
ipmc	The ACEs that are configured by IPMC module
ip-source-guard	The ACEs that are configured by IP Source Guard module
ip-mgmt	The ACEs that are configured by IP Management module
conflicts	The conflicts ACEs that does not applied to the hardware due to hardware limitations
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show access-list ace statistics rate-limiter
```

```
Switch access-list ace number: 0
```

```
Switch access-list rate limiter ID 1 is 1 pps
```

```
Switch access-list rate limiter ID 2 is 1 pps
```

```
Switch access-list rate limiter ID 3 is 1 pps
```

```
Switch access-list rate limiter ID 4 is 1 pps
```

```
Switch access-list rate limiter ID 5 is 1 pps
```

```
Switch access-list rate limiter ID 6 is 1 pps
```

```
Switch access-list rate limiter ID 7 is 1 pps
```

```
Switch access-list rate limiter ID 8 is 1 pps
```

```
Switch access-list rate limiter ID 9 is 1 pps
```

```
Switch access-list rate limiter ID 10 is 1 pps
```

```
Switch access-list rate limiter ID 11 is 1 pps
```

```
Switch access-list rate limiter ID 12 is 1 pps
```

```
Switch access-list rate limiter ID 13 is 1 pps
```

```
Switch access-list rate limiter ID 14 is 1 pps
```

```
Switch access-list rate limiter ID 15 is 1 pps
```

```
Switch access-list rate limiter ID 16 is 1 pps
```

```
SM24T6DPA#
```

aggregation

Show Aggregation port configuration.

SYNTAX

show aggregation [mode] [| {begin | exclude | include } <LINE>]

Parameters

mode	Traffic distribution mode
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show aggregation Mode
Aggregation Mode:

SMAC  : Enabled
DMAC  : Disabled
IP    : Enabled
Port  : Enabled
SM24T6DPA#
```

bonjour

Show Bonjour discovery mode.

SYNTAX

show bonjour

Parameter

None.

EXAMPLE

```
SM24T6DPA# show bonjour
bonjour Mode           : Disabled
SM24T6DPA#
```

clock

Show time-of-day clock.

SYNTAX

show clock [detail]

Parameter

detail Display detailed information

EXAMPLE

```
SM24T6DPA# show clock detail
System Time      : 2011-01-01T00:53:57+00:00

Timezone : Timezone Offset : 0 ( 0 minutes)
Timezone Acronym :

Daylight Saving Time Mode : Disabled.
Daylight Saving Time Start Time Settings :
    Week: 0
    Day: 0
    Month: 0
    Date: 0
    Year: 0
    Hour: 0
    Minute: 0
Daylight Saving Time End Time Settings :
    Week: 0
    Day: 0
    Month: 0
    Date: 0
    Year: 0
    Hour: 0
    Minute: 0
Daylight Saving Time Offset : 1 (minutes)
```

dhcp

Show Dynamic Host Configuration Protocol.

SYNTAX

show dhcp helper debug

Parameters

helper DHCP helper

debug

<cr>

EXAMPLE

```
SM24T6DPA# show dhcp helper debug
```

```
DHCP helper
```

```
frame_info_cnt : 0
```

```
debug : disable
```

```
SM24T6DPA#
```


dot1x

Show IEEE Standard for port-based Network Access Control.

SYNTAX

```
show dot1x statistics { eapol | radius | all } [ interface <port_type> <port_type_list> ] [ | {begin | exclude | include } <LINE>]
show dot1x status [ interface ( <port_type> [ <port_type_list> ] ) ] [ brief ] [ | {begin | exclude | include } <LINE>]
```

Parameters

- statistics** Shows statistics for either eapol or radius.
- all** Show all dot1x statistics
- eapol** Show EAPOL statistics
- radius** Show Backend Server statistics
- <port_type >** GigabitEthernet
- <port_type_list>** Port list in 1/1-26 for GigabitEthernet
- Status** Shows dot1x status, such as admin state, port state and last source.
- brief** Show status in a brief format
- interface** Interface
- *** All Switches or All Ports
- Gigabitethernet** 1 Gigabit Ethernet Port
- <port_type_list>** Port list in 1/1-26 for Gigabitethernet

EXAMPLE

SM24T6DPA# show dot1x statistics radius

	Rx Access	Rx Other	Rx Auth.	Rx Auth.	Tx	MAC
Interface	Challenges	Requests	Successes	Failures	Responses	Address
-----	-----	-----	-----	-----	-----	--
GigabitEthernet 1/1	0	0	0	0	0	-
GigabitEthernet 1/2	0	0	0	0	0	-
GigabitEthernet 1/3	0	0	0	0	0	-
GigabitEthernet 1/4	0	0	0	0	0	-
GigabitEthernet 1/5	0	0	0	0	0	-

SM24T6DPA#

event

Show trap event configuration.

SYNTAX

show event <cr>

Parameters

None.

EXAMPLE

```
SM24T6DPA# show event
Group Name          Severity Level   Syslog Mode   Trap Mode
SMTP Mode
-----
ACL                  Info            enable        disable
disable
ACL-Log              Info            enable        disable
disable
AUTO-SAVING          Info            enable        disable
disable
Access-Mgmt          Info            enable        disable
disable
Auth-Failed          Warning         enable        disable
disable
Cold-Start           Warning         enable        disable
disable
Config-Info          Info            enable        disable
disable
DMS                  Info            enable        disable
disable
Firmware-Upgrade     Info            enable        disable
disable
-- more --, next page: Space, continue: g, quit: ^C
```

green-ethernet

Show Green ethernet (Power reduction).

SYNTAX

show green-ethernet [interface <port_type> <port_type_list>]
show green-ethernet eee [interface <port_type> <port_type_list>]
show green-ethernet energy-detect [interface <port_type> <port_type_list>]
show green-ethernet short-reach [interface <port_type> <port_type_list>]

Parameters

eee Shows green ethernet EEE status for a specific port or ports.
energy-detect Shows green ethernet energy-detect status for a specific port or ports.
interface Shows green ethernet status for a specific port or ports.
short-reach Shows green ethernet short-reach status for a specific
interface
***** All Switches or All ports
<port_type > GigabitEthernet or
<port_type_list> Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# show green-ethernet eee
Interface          Lnk  EEE Capable  EEE Enabled  LP EEE Capable  In
Power Save
-----
-----
GigabitEthernet 1/1    No   Yes         No           No             No
GigabitEthernet 1/2    No   Yes         No           No             No
GigabitEthernet 1/3    No   Yes         No           No             No
GigabitEthernet 1/4    No   Yes         No           No             No
GigabitEthernet 1/5    No   Yes         No           No             No
GigabitEthernet 1/6    No   Yes         No           No             No
GigabitEthernet 1/7    No   Yes         No           No             No
GigabitEthernet 1/8    No   Yes         No           No             No
GigabitEthernet 1/9    No   Yes         No           No             No
```

history

Display the session command history.

SYNTAX

show history [| {begin | exclude | include } <LINE>]

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show history
show evc statistics
show green-ethernet EEE
show green-ethernet EEE interface GigabitEthernet
show history
SM24T6DPA#
```

interface

Show Interface status and configuration.

SYNTAX

```
show interface ( <port_type> [ <in_port_list> ] ) switchport [ access | trunk | hybrid ]
show interface ( <port_type> [ <v_port_type_list> ] ) CableDiag
show interface ( <port_type> [ <v_port_type_list> ] ) capabilities [ detail ]
show interface ( <port_type> [ <v_port_type_list> ] ) description
show interface ( <port_type> [ <v_port_type_list> ] ) statistics [ { packets | bytes | errors | discards | filtered | { priority
[ <priority_v_0_to_7> ] } } ] [ { up | down } ]
show interface ( <port_type> [ <v_port_type_list> ] ) status
show interface vlan [ <vlist> ]
```

Parameters

*	All Switches or All ports
Gigabitethernet	1 Gigabitethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
CableDiag	Display the latest cable diagnostic results.
capabilities	Display capabilities.
description	Display port description.
statistics	Display statistics counters.
status	Display status.
switchport	Show interface switchport information
bytes	Show byte statistics.
discards	Show discard statistics.
down	Show ports which are down
errors	Show error statistics.
filtered	Show filtered statistics.
packets	Show packet statistics.
priority	Queue number
up	Show ports which are up
vlan	VLAN status
<vlan_list>	VLAN list

EXAMPLE

```
SM24T6DPA# show interface GigabitEthernet 1/1-3 capabilities
GigabitEthernet 1/1 Capabilities:
SFP Type: None
```

```
SFP Vendor name:
SFP Vendor PN:
SFP Vendor revision
SM24T6DPA# show interface GigabitEthernet 1/24 CableDiag
Interface          Link Status   Test Result   Length
-----
GigabitEthernet 1/24  No test results

SM24T6DPA# show interface vlan
VLAN1
  LINK: 00-c0-f2-49-ac-a4 Mtu:1500 <UP BROADCAST RUNNING MULTICAST>
  IPv4: 192.168.1.77/24 192.168.1.255
  IPv4: 169.254.109.55/16 169.254.255.255
  IPv6: fe80::2c0:f2ff:fe49:aca4/64 <ANYCAST TENTATIVE AUTOCONF>

VLAN4096
  LINK: 00-c0-f2-49-ac-a4 Mtu:1500 <BROADCAST MULTICAST>

VLAN4097
  LINK: 00-c0-f2-49-ac-a4 Mtu:1500 <BROADCAST MULTICAST>
SM24T6DPA#
```

ip

Display Internet Protocol.

SYNTAX

show ip arp

show ip arp inspection [interface {<port_type> <port_type_list>} | vlan <vlan_list>]

show ip arp inspection entry [dhcp-snooping | static] [interface <port_type> <port_type_list>]

show ip dhcp relay [statistics]

show ip dhcp snooping [statistics] [interface <port_type> <port_type_list>]

show ip http server secure status

show ip igmp snooping [vlan <vlan_list>] [group-database [interface <port_type> <port_type_list>] [sfn-information]] [detail]

show ip igmp snooping mrouter [detail]

show ip interface brief

show ip name-server

show ip route

show ip source binding [dhcp-snooping | static] [interface <port_type> <port_type_list>]

show ip ssh

show ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]

show ip verify source [interface <port_type> <port_type_list>]

Parameters

arp	Address Resolution Protocol
inspection	ARP inspection
interface	arp inspection entry interface config
<port_type>	Gigabitethernet
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
vlan	VLAN configuration
<vlan_list>	Select a VLAN id to configure
entry	arp inspection entries
dhcp-snooping	learn from dhcp snooping
static	setting from static entries
dhcp	Dynamic Host Configuration Protocol
relay	DHCP relay agent configuration
statistics	Traffic statistics
snooping	DHCP snooping
http	Hypertext Transfer Protocol
server	HTTP web server

secure	Secure
status	Status
igmp	Internet Group Management Protocol
snooping	Snooping IGMP
vlan	Search by VLAN
<vlan_list>	VLAN identifier(s): VID
group-database	Multicast group database from IGMP
sfm-information	Including source filter multicast information from IGMP
detail	Detail running information/statistics of IGMP snooping
mrouter	Multicast router port status in IGMP
detail	Detail running information/statistics of IGMP snooping
interface	IP interface status and configuration
brief	Brief IP interface status
link-local	
name-server	Domain Name System
route	Display the current ip routing table
binding	ip source binding
dhcp-snooping	learn from dhcp snooping
ssh	Secure Shell
system	IPv4 system traffic
icmp	IPv4 ICMP traffic
icmp-msg	IPv4 ICMP traffic for designated message type
<0~255>	ICMP message type ranges from 0 to 255
verify	verify command
source	verify source
telnet	Telnet
verify	verify command

EXAMPLE

```

SM24T6DPA# show ip interface brief
Vlan Address          Method  Status
-----
  1 192.168.1.77/24    Manual  UP
SM24T6DPA# show ip link-local interface
Link-Local Address binding interface: 1
SM24T6DPA#

```


ipmc

Display IPv4/IPv6 multicast configuration.

SYNTAX

show ipmc profile [<ProfileName : word16>] [detail] [| {begin | exclude | include } <LINE>]

show ipmc range [<EntryName : word16>] [| {begin | exclude | include } <LINE>]

Parameters

profile	IPMC profile configuration
range	A range of IPv4/IPv6 multicast addresses for the profile
<ProfileName : word16>	Profile name in 16 char's
detail	Detail information of a profile
<EntryName : word16>	Range entry name in 16 char's
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show ipmc range
SM24T6DPA#
```

ipv6

Display IPv6 configuration.

SYNTAX

```
show ipv6 interface [ vlan <v_vlan_list> { brief | statistics } ]
show ipv6 mld snooping [ vlan <v_vlan_list> ] [ group-database [ interface ( <port_type> [ <v_port_type_list> ] ) ] [ sfm-
information ] ] [ detail ]
show ipv6 mld snooping mrouter [ detail ]
show ipv6 neighbor [ interface vlan <v_vlan_list> ]
show ipv6 route [ interface vlan <v_vlan_list> ]
show ipv6 statistics [ system ] [ interface vlan <v_vlan_list> ] [ icmp ] [ icmp-msg <type> ]
```

Parameters

interface	Select an interface to configure
vlan	VLAN of IPv6 interface
<vlan_list>	IPv6 interface VLAN list
brief	Brief summary of IPv6 status and configuration
statistics	Traffic statistics
mld	Multicast Listener Discovery
snooping	Snooping MLD
vlan	Search by VLAN
<vlan_list>	VLAN identifier(s): VID
group-database	Multicast group database from MLD
interface	Search by port
<port_type>	Gigabitethernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
sfm-information	Including source filter multicast information from MLD
detail	Detail running information/statistics of MLD snooping
mrouter	Multicast router port status in MLD
neighbor	IPv6 neighbors
route	IPv6 routes
statistics	Traffic statistics
system	IPv6 system traffic
icmp	IPv6 ICMP traffic
icmp-msg	IPv6 ICMP traffic for designated message type

<Type : 0~255>	ICMP message type ranges from 0 to 255
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show ipv6 interface
```

```
IPv6 Vlan1 interface is up.
  Internet address is fe80::2c0:f2ff:fe49:aca4
  Static address is not set
  IP stack index (IFID) is 2
  Routing is disabled on this interface
  MTU is 1500 bytes

IPv6 Statistics on Interface VLAN: 1
Rcvd: 0 total in 0 byte
      0 local destination, 0 forwarding
      0 header error, 0 address error, 0 unknown protocol
      0 no route, 0 truncated, 0 discarded
Sent: 10 total in 656 bytes
      10 generated, 0 forwarded
      0 discarded
Frag: 0 reassemble (0 reassembled, 0 couldn't reassemble)
      0 fragment (0 fragmented, 0 couldn't fragment)
      0 fragment created
Mcast: 0 received in 0 byte
        10 sent in 656 bytes
Bcast: 0 received, 0 sent
-- more --, next page: Space, continue: g, quit: ^C
```

```
SM24T6DPA# show ipv6 statistics system
```

```
IPv6 statistics:
```

```
Rcvd: 2 total in 112 bytes
```

```
    0 local destination, 0 forwarding
```

```
    0 header error, 0 address error, 0 unknown protocol
```

```
    0 no route, 0 truncated, 2 discarded
```

```
Sent: 8 total in 512 bytes
```

```
    14 generated, 0 forwarded
```

```
    3 no route, 0 discarded
```

```
Frgs: 0 reassemble (0 reassembled, 0 couldn't reassemble)
```

```
    0 fragment (0 fragmented, 0 couldn't fragment)
```

```
    0 fragment created
```

```
Mcast: 2 received in 112 bytes
```

```
    8 sent in 512 bytes
```

```
Bcast: 0 received, 0 sent
```

```
SM24T6DPA#
```

lacp

Display LACP configuration/status.

SYNTAX

```
show lacp { internal | statistics | system-id | neighbour } [ | {begin | exclude | include } <LINE>]
```

Parameters

internal	Internal LACP configuration
neighbour	Neighbour LACP status
statistics	Internal LACP statistics
system-id	LACP system id
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show lacp internal
Port  Mode      Key  Role   Timeout  Priority
----  -
1     Disabled  Auto Active Fast     32768
2     Disabled  Auto Active Fast     32768
3     Disabled  Auto Active Fast     32768
4     Disabled  Auto Active Fast     32768
5     Disabled  Auto Active Fast     32768
6     Disabled  Auto Active Fast     32768
7     Disabled  Auto Active Fast     32768
SM24T6DPA#
```

line

Display TTY line information.

SYNTAX

show line [alive] [| {begin | exclude | include } <LINE>]

Parameters

alive	Display information about alive lines
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show line alive
Line is con 0.
  * You are at this line now.
  Alive from Console.
  Default privileged level is 2.
  Command line editing is enabled
  Display EXEC banner is enabled.
  Display Day banner is enabled.
  Terminal width is 80.
    length is 24.
      history size is 32.
        exec-timeout is 10 min 0 second.
```

```
Current session privilege is 15.
Elapsed time is 0 day 0 hour 26 min 52 sec.
Idle time is 0 day 0 hour 0 min 0 sec.
```

```
SM24T6DPA#
```

lldp

Display LLDP neighbors information.

SYNTAX

```

show lldp [ interface ( <port_type> [ <v_port_type_list> ] ) ]
show lldp med media-vlan-policy [ <v_0_to_31> ]
show lldp med remote-device [ interface ( <port_type> [ <port_list> ] ) ]
show lldp neighbors [ interface ( <port_type> [ <v_port_type_list> ] ) ]
show lldp statistics [ interface ( <port_type> [ <v_port_type_list> ] ) ]

```

Parameters

med	Display LLDP-MED neighbors information.
neighbors	Display LLDP neighbors information.
statistics	Display LLDP statistics information.
media-vlan-policy	Display media vlan policies.
remote-device	Display remote device LLDP-MED neighbors information.
<0~31>	List of policies.
Interface	
<port_type >	GigabitEthernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```

SM24T6DPA# show lldp neighbors
Local Interface      : GigabitEthernet 1/6
Chassis ID           : 00-C0-F2-49-AC-A4
Port ID              : 7
Port Description     : Port #7
System Name          : SM24T6DPA
System Description   : Managed Switch, 20-port Gigabit, 4-port SFP/RJ-45 Combo, 2
                      SFP slots
System Capabilities  : Bridge(+)

```

Management Address : 192.168.1.77 (IPv4)

Local Interface : GigabitEthernet 1/7

Chassis ID : 00-C0-F2-49-AC-A4

Port ID : 6

Port Description : Port #6

System Name : SM24T6DPA

System Description : Managed Switch, 20-port Gigabit, 4-port SFP/RJ-45 Combo, 2
SFP slots

System Capabilities : Bridge(+)

Management Address : 192.168.1.77 (IPv4)

SM24T6DPA#

logging

Display Syslog.

SYNTAX

```
show logging <log_id> [ switch <switch_list> ]
```

```
show logging [ info ] [ warning ] [ error ] [ emerg ] [ alert ] [ crit ] [ notice ] [ debug ] [ switch <switch_list> ]
```

Parameter

<logging_id: 1-4294967295> Logging ID

| Output modifiers

alert Alert

crit Critical

debug Debug

emerg Emergency

error Error

info Information

notice Notice

warning Warning

<cr>

EXAMPLE

```
SM24T6DPA# show logging
Switch logging host mode is disabled
Switch logging host address is null
Switch logging host port is 514
Number of entries on Switch 1:
Emerg   : 0
Alert   : 0
Crit    : 0
Error   : 0
Warning: 13
Notice  : 0
Info    : 27
Debug   : 0
All     : 40
```

ID	Level	Time	Message

1	Warning	2011-01-01T00:00:07+00:00	SFP module inserted on port 26
2	Warning	2011-01-01T00:00:07+00:00	Switch just made a warm boot
3	Info	2011-01-01T00:00:07+00:00	topologyChange
4	Info	2011-01-01T00:00:08+00:00	topologyChange

-- more --, next page: Space, continue: g, quit: ^C

SM24T6DPA# **show logging 50**

Cannot find syslog ID 50 on Switch 1.

SM24T6DPA# **show logging 5**

Switch : 1

ID : 5

Level : Warning

Time : 2011-01-01T00:00:08+00:00

Message:

Link up on port 1

SM24T6DPA# **show logging 4**

Switch : 1

ID : 4

Level : Info

Time : 2011-01-01T00:00:08+00:00

Message:

topologyChange

SM24T6DPA#

loop-protect

Display Loop protection configuration.

SYNTAX

show loop-protect [interface <port_type> <port_type_list>]

Parameters

interface Interface status and configuration

<port_type > GigabitEthernet

***** All Switches or All ports

Gigabitethernet 1 Gigabit Ethernet Port

<port_type_list> Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# show loop-protect
Loop Protection Configuration
=====
Loop Protection   : Disable
Transmission Time : 5 sec
Shutdown Time    : 180 sec
GigabitEthernet 1/1
-----
    Loop protect mode is enabled.
    Action is shutdown.
    Transmit mode is enabled.
    No loop.
    The number of loops is 0.
    Status is up.
GigabitEthernet 1/2
-----
    Loop protect mode is enabled.
    Action is shutdown.
    Transmit mode is enabled.
    No loop.
-- more --, next page: Space, continue: g, quit: ^C
```

mac

Display Mac Address Table information.

SYNTAX

```
show mac address-table [ conf | static | aging-time | { { learning | count } [ interface ( <port_type>
[ <v_port_type_list> ] ) ] } | { address <v_mac_addr> [ vlan <v_vlan_id> ] } | vlan <v_vlan_id_1> | interface ( <port_type>
[ <v_port_type_list_1> ] ) ] ]
```

Parameters

address-table	Mac Address Table
conf	User added static mac addresses
static	All static mac addresses
aging-time	Aging time
learning	Learn/disable/secure state
count	Total number of mac addresses
interface	Select an interface to configure
<port_type>	Gigabitethernet
*	All switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26
address	MAC address lookup
<mac_addr>	48 bit MAC address: xx:xx:xx:xx:xx:xx
vlan	VLAN lookup
<vlan_id>	VLAN IDs 1-4095
vlan	Addresses in this VLAN
<vlan_id>	VLAN IDs 1-4095
interface	Select an interface to configure
<port_type>	igabitethernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show mac address-table static
Type   VID  MAC Address      Ports
Static 1   00:c0:f2:49:ac:a4  CPU
Static 1   33:33:00:00:00:01 GigabitEthernet 1/1-26 CPU
Static 1   33:33:00:00:00:02 GigabitEthernet 1/1-26 CPU
Static 1   33:33:ff:49:ac:a4  GigabitEthernet 1/1-26 CPU
Static 1   ff:ff:ff:ff:ff:ff  GigabitEthernet 1/1-26 CPU
SM24T6DPA# show mac address-table vlan 1
Type   VID  MAC Address      Ports
Dynamic 1   00:1b:11:b2:6d:4b  GigabitEthernet 1/1
Static 1   00:c0:f2:49:ac:a4  CPU
Dynamic 1   00:c0:f2:49:ac:ab  GigabitEthernet 1/6
Static 1   33:33:00:00:00:01  GigabitEthernet 1/1-26 CPU
Static 1   33:33:00:00:00:02  GigabitEthernet 1/1-26 CPU
Static 1   33:33:ff:49:ac:a4  GigabitEthernet 1/1-26 CPU
Static 1   ff:ff:ff:ff:ff:ff  GigabitEthernet 1/1-26 CPU
SM24T6DPA#
```

show map-api-key

You need a valid API key and a Google Cloud Platform billing account to access Google core product. If not, DMS Map View will not be able to load Google Map correctly. Please visit the Google website below and following the directions to get API key: <https://developers.google.com/maps/documentation/directions/get-api-key>.

SYNTAX

show map-api-key

Parameters

None.

EXAMPLE

```
SM24T6DPA# show map-api-key
Key   : A1B2C3d4e5%2B%21
SM24T6DPA#
```

mvr

Display Multicast VLAN Registration configuration.

SYNTAX

```
show mvr [ vlan <v_vlan_list> | name <mvr_name> ] [ group-database [ interface ( <port_type> [ <v_port_type_list> ] ) ] ]
[ sfm-information ] ] [ detail ]
```

Parameters

vlan	Search by VLAN
<v_vlan_list>	MVR multicast VLAN list
name	Search by MVR name
<word16>	MVR multicast VLAN name
group-database	Multicast group database from MVR
interface	Search by port
<port_type>	* or Gigabitethernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
sfm-information	Including source filter multicast information from MVR
detail	Detail information/statistics of MVR group database
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show mvr
```

```
MVR is now enabled to start group registration.
```

```
Switch-1 MVR-IGMP Interface Status
```

```
IGMP MVR VLAN 10 (Name is MVRvid-1) interface is enabled.
```

```
Querier status is IDLE
```

```
RX IGMP Query:0 V1Join:0 V2Join:0 V3Join:0 V2Leave:0
```

```
TX IGMP Query:0 / (Source) Specific Query:0
```

```
Interface Channel Profile: <No Associated Profile>

Switch-1 MVR-MLD Interface Status

MLD MVR VLAN 10 (Name is MVRvid-1) interface is enabled.
Querier status is IDLE
RX MLD Query:0 V1Report:0 V2Report:0 V1Done:0
TX MLD Query:0 / (Source) Specific Query:0
Interface Channel Profile: <No Associated Profile>
SM24T6DPA#
```

ntp

Show NTP.

SYNTAX

show ntp status

Parameter

status status

EXAMPLE

```
SM24T6DPA# show ntp status
NTP Mode : disabled
Idx  Server IP host address (a.b.c.d) or a host name string
---  -----
1
2
3
4
5
SM24T6DPA#
```

platform

Display Platform specific information

SYNTAX

```
show platform phy [ interface ( <port_type> [ <v_port_type_list> ] ) ]
show platform phy id [ interface ( <port_type> [ <v_port_type_list> ] ) ]
show platform phy instance
show platform phy status [ interface ( <port_type> [ <v_port_type_list> ] ) ]
```

Parameters

phy	PHYs' information
	Output modifiers
id	
instance	PHY Instance Information
interface	
status	
*	All switches or All ports
GigabitEthernet	1 Gigabit Ethernet Port
PORT_LIST	Port list in 1/1-26
<cr>	

EXAMPLE

```
SM24T6DPA# show platform phy instance
Next Restart      : Warm
Previous Restart: Warm
Current API Version : 1
Previous API Version: 1
Phy Instance Restart Source:1G
Phy Instance Restart Port:0
Current Phy Start Instance:none
SM24T6DPA# show platform phy interface GigabitEthernet 1/3
Port  API Inst  WAN/LAN/1G Mode    Duplex    Speed    Link
----  -
3     Default  1G           PD        -         -         ,No
SM24T6DPA#
```


port-security

Show Port Security configurations.

SYNTAX

show port-security port [interface (<port_type> [<v_port_type_list>])]
show port-security switch [interface (<port_type> [<v_port_type_list>])]

Parameters

- port** Show MAC Addresses learned by Port Security
- switch** Show Port Security status.
- Interface**
- <port_type >** GigabitEthernet
- *** All Switches or All ports
- Gigabitethernet** 1 Gigabit Ethernet Port
- <port_type_list>** Port list in 1/1-26 for Gigabitethernet
- |** Output modifiers

EXAMPLE

```
SM24T6DPA# show port-security switch
Users:
L = Limit Control
8 = 802.1X
V = Voice VLAN
Interface           Users  State      MAC Cnt
-----
GigabitEthernet 1/1  ---    No users   0
GigabitEthernet 1/2  L--    Ready      0
GigabitEthernet 1/3  L--    Ready      0
GigabitEthernet 1/4  L--    Ready      0
GigabitEthernet 1/5  L--    Ready      0
GigabitEthernet 1/6  L--    Ready      0
GigabitEthernet 1/7  ---    No users   0
GigabitEthernet 1/8  ---    No users   0
GigabitEthernet 1/9  ---    No users   0
GigabitEthernet 1/10 ---    No users   0
GigabitEthernet 1/11 ---    No users   0
GigabitEthernet 1/12 ---    No users   0
```

GigabitEthernet 1/13	---	No users	0
GigabitEthernet 1/14	---	No users	0
GigabitEthernet 1/15	---	No users	0
GigabitEthernet 1/16	---	No users	0
SM24T6DPA#			

privilege

Show privilege levels.

SYNTAX

show privilege [| {begin | exclude | include } <LINE>

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match

EXAMPLE

```
SM24T6DPA# show privilege
```

```
-----  
| The order is as the input sequence and |  
| the last one has the highest priority. |  
-----
```

```
privilege line level 5 LINE
```

pvlan

Show PVLAN status.

SYNTAX

show pvlan [<pvlan_list>]
show pvlan isolation [interface (<port_type> [<plist>])]

Parameters

<range_list>	PVLAN id to show configuration for
isolation	show isolation configuration
<port_type >	GigabitEthernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show pvlan isolation interface GigabitEthernet 1/1-2
Port                               Isolation
-----
GigabitEthernet 1/1                Disabled
GigabitEthernet 1/2                Disabled
SM24T6DPA#
```

qos

Show Quality of Service.

SYNTAX

show qos [{ interface [(<port_type> [<port>])] } | wred | { maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] } | storm | { qce [<qce>] }]

Parameters

interface	Interface
<port_type >	GigabitEthernet
*	All switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
maps	Global QoS Maps/Tables
qce	QoS Control Entry
storm	Storm policer
cos-dscp	Map for cos to dscp
dscp-classify	Map for dscp classify enable
dscp-cos	Map for dscp to cos
dscp-egress-translation	Map for dscp egress translation
dscp-ingress-translation	Map for dscp ingress translation
<Qce : 1-256>	QCE ID
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```

SM24T6DPA# show qos storm
qos storm:
=====
Unicast   : disabled           1
Multicast : disabled           1
Broadcast : disabled           1
SM24T6DPA#

```

radius-server

Show RADIUS configuration.

SYNTAX

show radius-server [statistics] [| {begin | exclude | include } <LINE>

Parameters

statistics	RADIUS statistics
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show radius-server
Global RADIUS Server Timeout      : 5 seconds
Global RADIUS Server Retransmit   : 3 times
Global RADIUS Server Deadtime     : 0 minutes
Global RADIUS Server Key          :
Global RADIUS Server Attribute 4  :
Global RADIUS Server Attribute 95 :
Global RADIUS Server Attribute 32 :
No hosts configured!
SM24T6DPA#
```

rmon

Show RMON parameters.

SYNTAX

show rmon alarm [<id_list>]

show rmon event [<id_list>]

show rmon history [<id_list>]

show rmon statistics [<id_list>]

Parameters

alarm	Display the RMON alarm table
event	Display the RMON event table
history	Display the RMON history table
statistics	Display the RMON statistics table
<1~65535>	Alarm/Event/History/Statistics entry list
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show rmon alarm 1
```

```
Alarm ID :      1
```

```
-----
```

```
Interval      : 2
Variable      : .1.3.6.1.2.1.2.2.1.14.1
SampleType    : deltaValue
Value         : 0
Startup       : risingOrFallingAlarm
RisingThrld   : 5000
FallingThrld  : 4000
RisingEventIndex : 0
FallingEventIndex : 0
```

```
SM24T6DPA#
```

running-config

Show running system information.

SYNTAX

show running-config [all-defaults]

show running-config feature <feature_name> [all-defaults]

show running-config interface (<port_type> [<list>]) [all-defaults]

show running-config interface vlan <list> [all-defaults]

show running-config line { console | vty } <list> [all-defaults]

show running-config vlan <list> [all-defaults]

Parameters

all-defaults Include most/all default values

feature Show configuration for specific feature

interface Show specific interface(s)

line Show line settings

vlan VLAN

CWORD Valid words are 'GVRP' 'access' 'access-list' 'activate' 'aggregation' 'arp-inspection' 'auth' 'bonjour' 'cli_telnet' 'clock' 'dhcp' 'dhcp-snooping' 'dhcp_server' 'dms-server' 'dns' 'dot1x' 'green-ethernet' 'http' 'icli' 'ip-igmp-snooping' 'ip-igmp-snooping-port' 'ip-igmp-snooping-vlan' 'ipmc-profile' 'ipmc-profile-range' 'ipv4' 'ipv6' 'ipv6-mld-snooping' 'ipv6-mld-snooping-port' 'ipv6-mld-snooping-vlan' 'lACP' 'lldp' 'logging' 'loop-protect' 'mac' 'monitor' 'mstp' 'mvr' 'mvr-port' 'ntp' 'phy' 'port' 'port-security' 'push_notification' 'pvlan' 'qos' 'rmon' 'sflow' 'smtp' 'snmp' 'source-guard' 'ssh' 'system' 'trap_event' 'upnp' 'user' 'vlan' 'voice-vlan' 'vtun' 'web' 'web-privilege-group-level'

<port_type > GigabitEthernet

***** All switches or All ports

Gigabitethernet 1 Gigabit Ethernet Port

<port_type_list> Port list in 1/1-26 for Gigabitethernet

<vlan_list> List of VLAN numbers

console Console

vty VTY

<range_list> List of console/VTYs

EXAMPLE

```
SM24T6DPA# show running-config all-defaults
Building configuration...
hostname SM24T6DPA
no logging on
```



```
no logging host
logging port 514
username admin privilege 15 password encrypted f31c733c1c37f9e58791d9c4e806685ef
22bc8067e54e1b691b28735a739b19ce595845d947b2128117d6b28ca4bc352a98f417a0406cfa7c
e288cc8f81bb774
no access management
no loop-protect
loop-protect transmit-time 5
loop-protect shutdown-time 180
no ip dhcp server per-port
!
vlan 1
  name default
!
!
no ipmc profile
!
no ip routing
ip route 0.0.0.0 0.0.0.0 192.168.1.254
-- more --, next page: Space, continue: g, quit: ^C
```

sflow

Show Statistics flow..

SYNTAX

```
show sflow
show sflow statistics { receiver [ <rcvr_idx_list> ] | samplers [ interface [ <samplers_list> ] ( <port_type>
[ <v_port_type_list> ] ) ] }<LINE>
```

Parameters

statistics	sFlow statistics.
receiver	Show statistics for receiver.
samplers	Show statistics for samplers.
<range_list>	runtime, see sflow_icli_functions.c
<port_type >	GigabitEthernet
*	All switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show sflow statistics receiver
Tx Successes      Tx Errors      Flow Samples      Counter Samples
-----
0                0                0                0

SM24T6DPA# show sflow statistics sampler ?
|                Output modifiers
*                All switches or All ports
GigabitEthernet  1 Gigabit Ethernet Port
<range_list>     runtime, see sflow_icli_functions.c
<cr>
```

```
SM24T6DPA# show sflow statistics sampler

Per-Port Statistics:
=====
```

Interface	Rx Flow Samples	Tx Flow Samples	Counter Samples
GigabitEthernet 1/1	0	0	0
GigabitEthernet 1/2	0	0	0
GigabitEthernet 1/3	0	0	0
GigabitEthernet 1/4	0	0	0
GigabitEthernet 1/5	0	0	0
GigabitEthernet 1/6	0	0	0
GigabitEthernet 1/7	0	0	0
GigabitEthernet 1/8	0	0	0
GigabitEthernet 1/9	0	0	0
GigabitEthernet 1/10	0	0	0
GigabitEthernet 1/11	0	0	0
GigabitEthernet 1/12	0	0	0
GigabitEthernet 1/13	0	0	0
GigabitEthernet 1/14	0	0	0
GigabitEthernet 1/15	0	0	0
GigabitEthernet 1/16	0	0	0

-- more --, next page: Space, continue: g, quit: ^C

smtp

Show email information.

SYNTAX

show smtp <cr>

Parameters

None.

EXAMPLE

```
SM24T6DPA# show smtp
Mail Server      :
User Name       :
Password        :
Sender          :
Return Path     :
Email Address 1  :
Email Address 2  :
Email Address 3  :
Email Address 4  :
Email Address 5  :
Email Address 6  :
SM24T6DPA#
```

snmp

Display SNMP configurations.

SYNTAX

show snmp

show snmp access [<group_name> { v1 | v2c | v3 | any } { auth | noauth | priv }]

show snmp community v3 [<community>]

show snmp host [<conf_name>] [system] [switch] [interface] [aaa]

show snmp info

show snmp mib context

show snmp mib ifmib ifIndex

show snmp security-to-group [{ v1 | v2c | v3 } <security_name>]

show snmp user [<username> <engineID>]

show snmp view [<view_name> <oid_subtree>]

Parameters

access	access configuration
<GroupName : word32>	Group name
v1	v1 security model
v2c	v2c security model
v3	v3 security model
any	any security model
auth	authNoPriv Security Level
noauth	noAuthNoPriv Security Level
priv	authPriv Security Level
community	Community
v3	SNMPv3
<Community : word127>	Specify community name
host	Set SNMP host's configurations
<ConfName : word32>	Name of the host configuration
system	System event group
switch	Switch event group
interface	Interface event group
aaa	AAA event group
info	
mib	MIB(Management Information Base)
context	MIB context

ifmib	IF-MIB
security-to-group	security-to-group configuration
<SecurityName : word32>	security group name
user	User
<UserName : word32>	Security user name
<EngineId : word10-32>	Security Engine ID
view	MIB view configuration
<ViewName : word32>	MIB view name
<OldSubtree : word255>	MIB view OID

EXAMPLE

```

SM24T6DPA# show snmp info

SNMP Info:
Conf VendorName:TN, VENDOR_TN
EngineID: 800007e5017f000001
config.mk oid :1.3.6.1.4.1.5205.2.113, length:9
Using      oid :1.3.6.1.4.1.868.2.66, length:9
Conf: EnterpriseId:868, SwitchId:2, ProductId:66, snmp-oid:5205.2.113

SM24T6DPA# show snmp access

Group Name      : default_ro_group
Security Model   : any
Security Level   : NoAuth, NoPriv
Read View Name   : default_view
Write View Name  : <no writeview specified>

Group Name      : default_rw_group
Security Model   : any
Security Level   : NoAuth, NoPriv
Read View Name   : default_view
Write View Name  : default_view

SM24T6DPA#

```

spanning-tree

Display STP Bridge.

SYNTAX

show spanning-tree [summary | active | { interface (<port_type> [<v_port_type_list>]) } | { detailed [interface (<port_type> [<v_port_type_list_1>]) } | { mst [configuration | { <instance> [interface (<port_type> [<v_port_type_list_2>])] }] }]]]

Parameters

summary	STP summary
active	STP active interfaces
interface	Choose port
<port_type>	Gigabitethernet
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
detailed	STP statistics
interface	List of port type and port ID, ex, 1/1-26
mst	Configuration
configuration	STP bridge instance no (0-7, CIST=0, MST2=1...)
<0-7>	Choose port
<port_type >	GigabitEthernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# show spanning-tree
CIST Bridge STP Status
Bridge ID    : 32768.00-C0-F2-49-AC-A4
Root ID      : 32768.00-C0-F2-49-AC-A4
Root Port    : -
Root PathCost: 0
Regional Root: 32768.00-C0-F2-49-AC-A4
Int. PathCost: 0
Max Hops     : 20
TC Flag      : Steady
TC Count     : 0
```

```

TC Last      : -
Port         Port Role      State      Pri PathCost Edge P2P Uptime
-----
Gi 1/1       DesignatedPort Forwarding 128    20000 Yes  Yes  0d 11:30:12
Gi 1/6       DesignatedPort Forwarding 128    20000 Yes  Yes  0d 18:18:59
Gi 1/7       BackupPort      Discarding 128    20000 No   Yes  0d 18:18:59
SM24T6DPA#

```

switchport

Display switching mode characteristics.

SYNTAX

```
show switchport forbidden [ { vlan <vid> } | { name <name> } ]
```

Parameters

forbidden Lookup VLAN Forbidden port entry.

name name - Show forbidden access for specific VLAN name.

vlan vid - Show forbidden access for specific VLAN id.

<vlan_id> VLAN id

<word> VLAN name

| Output modifiers

begin Begin with the line that matches

exclude Exclude lines that match

include Include lines that match

<LINE> String to match output lines

EXAMPLE

```

SM24T6DPA# show switchport forbidden
Forbidden VLAN table is empty
SM24T6DPA#

```


system

Show system information.

SYNTAX

show system

show system cpu status

show system reboot

Parameters

cpu CPU

reboot Switch reboot scheduling

<cr>

EXAMPLE

```
SM24T6DPA# show system cpu status
    Average load in 100 ms : 14%
    Average load in  1 sec : 7%
    Average load in 10 sec : 7%
SM24T6DPA# show system
Model Name           : SM24T6DPA
System Description    : Managed Switch, 20-port Gigabit, 4-port SFP/RJ-45
Combo, 2 SFP slots
Location             :
Contact              :
System Name          : SM24T6DPA
System Date           : 2011-01-01T18:27:48+00:00
System Uptime        : 18:27:48
Bootloader Version    : v1.15f
Firmware Version      : v6.54.3202 2019-07-12
Hardware Version      : v1.01
Mechanical Version    : v1.01
Serial Number        : A063118AR1900004
MAC Address          : 00-c0-f2-49-ac-a4
Memory               : Total=74922 KBytes, Free=52085 KBytes, Max=51663 K
Bytes
FLASH                : 0x40000000-0x41ffffff, 512 x 0x10000 blocks
SM24T6DPA#
```

tacacs-server

Display TACACS+ configuration.

SYNTAX

show tacacs-server [| {begin | exclude | include } <LINE>

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show tacacs-server
Global TACACS+ Server Timeout      : 5 seconds
Global TACACS+ Server Deadtime    : 0 minutes
Global TACACS+ Server Key         :
No hosts configured!
SM24T6DPA#
```

terminal

Display terminal configuration parameters.

SYNTAX

show terminal [| {begin | exclude | include } <LINE>

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show terminal
Line is vty 0.
    * You are at this line now.
    Alive from Telnet.
    Default privileged level is 2.
    Command line editing is disabled
    Display EXEC banner is enabled.
    Display Day banner is enabled.
    Terminal width is 80.
        length is 24.
        history size is 32.
        exec-timeout is 1440 min 0 second.

    Current session privilege is 15.
    Elapsed time is 0 day 3 hour 1 min 51 sec.
    Idle time is 0 day 0 hour 0 min 0 sec.

SM24T6DPA#
```

upnp

Display UPnP configurations.

SYNTAX

show upnp [| {begin | exclude | include } <LINE>

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show upnp
UPnP Mode           : Disabled
UPnP TTL            : 4
UPnP Advertising Duration : 100
SM24T6DPA#
```

user-privilege

Display users privilege configuration.

SYNTAX

show user-privilege <cr>

Parameters

None.

EXAMPLE

```
SM24T6DPA# show user-privilege
username admin privilege 15 password encrypted f31c733c1c37f9e58791d9c4e806685ef
22bc8067e54e1b691b28735a739b19ce595845d947b2128117d6b28ca4bc352a98f417a0406cfa7c
e288cc8f81bb774
username jeffs privilege 14 password encrypted 056f72fee8e72f654ab49addfed1cad7
53e990eb5a93ad7a131c83a585d6c9689c186a270579642285333b00a2cefed25096cc5accdda28f
59d7ab821d77723
SM24T6DPA#
```

users

Display information about terminal lines.

SYNTAX

show users myself [| {begin | exclude | include } <LINE>

Parameter

myself	Display information about mine
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show user myself
Line is vty 0.
  * You are at this line now.
Connection is from 192.168.10.119:4123 by Telnet.
User name is admin.
Privilege is 15.
Elapsed time is 0 day 1 hour 33 min 27 sec.
Idle time is 0 day 0 hour 0 min 0 sec.
```

version

Display System hardware and software status.

SYNTAX

show version <cr>

Parameters

	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show version

MEMORY          : Total=74922 KBytes, Free=52083 KBytes, Max=51663 KBytes
FLASH           : 0x40000000-0x41ffffff, 512 x 0x10000 blocks
MAC Address     : 00-c0-f2-49-ac-a4
Previous Restart : Warm

System Contact  :
System Name     : SM24T6DPA
System Location :
System Time     : 2011-01-01T18:39:20+00:00
System Uptime   : 18:39:20

Active Image
-----
Image           : managed
Version         : SM24T6DPA (standalone) v6.54.3202
Date            : 2019-07-12T05:58:30+08:00

Alternate Image
-----
Image           : managed.bk
Version         : SM24T6DPA (standalone) v6.47.1882
Date            : 2016-03-26T14:27:02+08:00

SM24T6DPA#
```

vlan

Display VLAN status.

SYNTAX

show vlan [id <vlan_list> | name <name> | brief]

show vlan ip-subnet [id <subnet_id>]

show vlan mac [address <mac_addr>]

show vlan membership [id <vlan_list> | name <name>] [combined | admin | nas | mvr | voice-vlan | mstp | erps | vcl | evc | gvrp | forbidden]

show vlan protocol [eth2 { <etype> | arp | ip | ipx | at }] [snap { <oui> | rfc-1042 | snap-8021h } <pid>] [llc <dsap> <ssap>]

show vlan status [interface (<port_type> [<plist>])] [combined | admin | nas | mvr | voice-vlan | mstp | erps | vcl | evc | gvrp | all | conflicts]

Parameter

brief	VLAN summary information
id	VLAN status by VLAN id
<vlan_list>	VLAN IDs 1-4095
name	VLAN status by VLAN name
<vword32>	A VLAN name
brief	VLAN summary information
protocol	Protocol-based VLAN status
eth2	Ethernet protocol based VLAN status
<0x600-0xffff>	Ether Type(Range: 0x600 - 0xFFFF)
arp	Ether Type is ARP
ip	Ether Type is IP
ipx	Ether Type is IPX
at	Ether Type is AppleTalk
snap	SNAP-based VLAN status
<0x0-0xfffff>	SNAP OUI (Range 0x000000 - 0xFFFFFFF)
rfc_1042	SNAP OUI is rfc_1042
snap_8021h	SNAP OUI is 8021h
<0x0-0xffff>	PID (Range: 0x0 - 0xFFFF)
llc	LLC-based VLAN status
<0x0-0xff>	DSAP (Range: 0x00 - 0xFF)
<0x0-0xff>	SSAP (Range: 0x00 - 0xFF)
admin	Show the VLANs configured by administrator.

all	Show all VLANs configured.
combined	Show the VLANs configured by a combination.
conflicts	Show VLANs configurations that has conflicts.
gvrp	Show the VLANs configured by GVRP.
interface	Show the VLANs configured for a specific interface(s).
mstp	Show the VLANs configured by MSTP.
mvr	Show the VLANs configured by MVR.
nas	Show the VLANs configured by NAS.
vcl	Show the VLANs configured by VCL.
voice-vlan	Show the VLANs configured by Voice VLAN.
interface	Show the VLANs configured for a specific interface(s).
<port_type >	GigabitEthernet
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet

EXAMPLE

```
SM24T6DPA# show vlan brief
VLAN  Name                               Interfaces
-----
1      default                           Gi 1/1-26
SM24T6DPA# show vlan status
GigabitEthernet 1/1 :
-----
VLAN User  PortType      PVID  Frame Type      Ing Filter  Tx Tag      UVID  Conflicts
-----
Admin    C-Port        1      All              Enabled     All except-native  1
NAS
GVRP
MVR
Voice VLAN
MSTP
DMS
VCL
-- more --, next page: Space, continue: g, quit: ^C
```


voice

Display Voice appliance attributes.

SYNTAX

```
show voice vlan [ oui <oui> | interface ( <port_type> [ <port_list> ] ) ]
```

Parameters

vlan	Vlan for voice traffic
oui	OUI configuration
<oui>	OUI value
interface	Select an interface to configure
<port_type>	* or Gigabitethernet
*	All Switches or All ports
Gigabitethernet	1 Gigabit Ethernet Port
<port_type_list>	Port list in 1/1-26 for Gigabitethernet
 	Output modifiers
begin	Begin with the line that matches
exclude	Exclude lines that match
include	Include lines that match
<LINE>	String to match output lines

EXAMPLE

```
SM24T6DPA# show voice vlan
Switch voice vlan is disabled
Switch voice vlan ID is 1000
Switch voice vlan aging-time is 86400 seconds
Switch voice vlan traffic class is 7

Telephony OUI  Description
-----  -----

Voice VLAN switchport is configured on following:

GigabitEthernet 1/1 :
-----
GigabitEthernet 1/1 switchport voice vlan mode is disabled
GigabitEthernet 1/1 switchport voice security is disabled
```

```
GigabitEthernet 1/1 switchport voice discovery protocol is oui
```

```
GigabitEthernet 1/2 :
```

```
-----
```

```
GigabitEthernet 1/2 switchport voice vlan mode is disabled
```

```
GigabitEthernet 1/2 switchport voice security is disabled
```

```
GigabitEthernet 1/2 switchport voice discovery protocol is oui
```

```
-- more --, next page: Space, continue: g, quit: ^C
```

web

Display Web access privilege level.

SYNTAX

show web privilege group [<group_name>] level

Parameters

privilege	Web privilege
group	Web privilege group
CWORD	Valid words are 'ACTIVATE' 'Aggregation' 'DHCP' 'DMS_client' 'DMS_server' 'Debug' 'Dhcp_Client' 'Diagnostics' 'EEE' 'GARP' 'GVRP' 'Green_Ethernet' 'IP2' 'IPMC_Snooping' 'Install_Wizard' 'LACP' 'LLDP' 'Loop_Protect' 'MAC_Table' 'MVR' 'Maintenance' 'Mirroring' 'NTP' 'Ports' 'Private_VLANs' 'QoS' 'RPC' 'SMTP' 'Security' 'Spanning_Tree' 'System' 'TS_client' 'TS_server' 'Timer' 'Trap_Event' 'Trouble_Shooting' 'UPnP' 'VCL' 'VLANs' 'VTUN' 'Voice_VLAN' 'XXRP' 'bonjour' 'cloud_management' 'sFlow'
level	Web privilege group level

EXAMPLE

```
SM24T6DPA# show web privilege group DMS_client level
Group Name          Privilege Level
                   CRO CRW SRO SRW
-----
DMS_client          5  10  5  10
SM24T6DPA#
SM24T6DPA# show web privilege group SMTP level
Group Name          Privilege Level
                   CRO CRW SRO SRW
-----
SMTP                5  10  5  10
SM24T6DPA# show web privilege group Debug level
Group Name          Privilege Level
                   CRO CRW SRO SRW
-----
Debug               15  15  15  15
SM24T6DPA#
```

18. Terminal Commands

Set terminal line parameters.

Syntax

terminal editing

terminal exec-timeout <min> [<sec>]

terminal help

terminal history size <history_size>

terminal length <lines>

terminal width <width>

Parameters

editing	Enable command line editing
exec-timeout	Set the EXEC timeout
help	Description of the interactive help system
history	Control the command history function
length	Set number of lines on a screen
width	Set width of the display terminal
<0-1440>	Timeout in minutes
<0-3600>	Timeout in seconds
size	Set history buffer size
<0-32>	Number of history commands, 0 means disable
<0 or 3-512>	Number of lines on screen (0 for no pausing)
<0 or 40-512>	Number of characters on a screen line (0 for unlimited width)

EXAMPLE

```
SM24T6DPA# terminal help
```

Help may be requested at any point in a command by entering a question mark '?'. If nothing matches, the help list will be empty and you must backup until entering a '?' shows the available options.

Two styles of help are provided:

1. Full help is available when you are ready to enter a command argument (e.g. 'show ?') and describes each possible argument.
2. Partial help is provided when an abbreviated argument is entered and you want to know what arguments match the input

(e.g. 'show pr?'.)

SM24T6DPA#

SM24T6DPA# **terminal exec 1440**

SM24T6DPA# **terminal editing**

SM24T6DPA# **terminal history size 15**

SM24T6DPA#

19. IP Commands

IPv4 commands.

Syntax

```
ip dhcp retry interface vlan <vlan_id>
```

Parameters

dhcp	Dhcp commands
retry	Restart the DHCP query process
interface	Interface
vlan	Vlan interface
<vlan_id>	Vlan ID

EXAMPLE

```
SM24T6DPA# ip dhcp retry interface vlan 1
% Failed to restart DHCP client on VLAN = 1.
```

20. Traceroute Commands

Copy from source to destination

SYNTAX

```
traceroute ip <v_ip_addr> [ protocol { icmp | udp | tcp } ] [ wait <v_wait_time> ] [ ttl <v_max_ttl> ]  
[ nqueries <v_nqueries> ]
```

Parameters

ip	IP
<word1-255	destination address
nqueries	Specify number of probe packets
protocol	Specify protocol including icmp, udp and tcp
ttl	Specify max TTL
wait	Specify wait time

EXAMPLE

```
SM24T6DPA# traceroute ip 22 nqueries 3 protocol icmp ttl 3 wait 3  
traceroute to 22 (0.0.0.22), 3 hops max, 140 byte packets  
1  * * *  
2  * * *  
3  * * *  
SM24T6DPA#
```

21. CLI Command Reference

This chapter summarizes CLI privilege levels, command modes, and commands.

- The privilege level determines whether or not you can run a particular command.
- If you can run a particular command, then you must run the command in the correct mode.

23.1 Privilege Levels

Every command has a privilege level (0-15). Users can run a command if the session's privilege level is greater than or equal to the command's privilege level. The session's privilege level initially comes from the login account's privilege level, though it is possible to change the session's privilege level after logging in.

Privilege Level	Types of Commands at This Privilege Level
0	Display basic system information
13	Configure features except for login accounts, the authentication method sequence, multiple logins, and administrator and enable passwords.
15	Configure login accounts, the authentication method sequence, multiple logins, and administrator and enable passwords.

23.2 Command Modes

The CLI is divided into several modes. The modes available depend on the session's privilege level.

Mode	Prompt	Command Function in This Mode
exec	<sys_name>#	Display current configuration, diagnostics, maintenance
config	<sys_name>(config)#	Configure features other than those below
Config-if	<sys_name>(config-interface)#	Configure ports
Config-if-vlan	<sys_name>(config-if-vlan)#	Configure static vlan
Config-line	<sys_name>(config-line)#	Line Configuration
Config-impcc-profile	<sys_name>(config-impcc-profile)#	IPMC Profile
Config-snmp-host	<sys_name>(config-snmp-host)#	SNMP Server Host
Config-stp-aggr	<sys_name>(config-stp-aggr)#	STP Aggregation
Config-dhcp-pool	<sys_name>(config-dhcp-pool)#	DHCP Pool Configuration
Config-rfc2544-profile	<sys_name>(config-rfc2544-profile)#	RFC2544 Profile

Command Summary

Command	Description	P	Mode
show access management	Use the show access management user EXEC command without keywords to display the access management configuration, or use the statistics keyword to display statistics, or use the <AccessId> keyword to display the specific access management entry.	15	EXEC
clear access management statistics	Use the clear access management statistics privileged EXEC command to clear the statistics maintained by access management.	15	EXEC
access management	Use the access management global configuration command to enable the access management. Use the no form of this command to disable the access management.	15	GLOBAL_CONFIG
access management <1-16> <1-4094> <ipv4_addr> [to <ipv4_addr>] { [web] [snmp] [telnet] all }	Use the access management <AccessId> global configuration command to set the access management entry for IPv4 address.	15	GLOBAL_CONFIG
access management <1-16> <1-4094> <ipv6_addr> [to <ipv6_addr>] { [web] [snmp] [telnet] all }	Use the access management <AccessId> global configuration command to set the access management entry for IPv6 address.	15	GLOBAL_CONFIG
no access management <1~16>	Use the no access management <AccessIdList> global configuration command to delete the specific access management entry.	15	GLOBAL_CONFIG
access-list action { permit deny }	Use the access-list action interface configuration command to configure access-list action. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list rate-limiter <1-16>	Use the access-list rate-limiter interface configuration command to configure the access-list rate-limiter ID . The access-list interface configuration will affect the received	15	INTERFACE_PORT_LIST

	frames if it doesn't match any ACE.		
no access-list rate-limiter	Use the no access-list rate-limiter interface configuration command to disable the access-list rate-limiter. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list { redirect port-copy } interface { <port_type_id> <port_type_list> }	Use the no access-list redirect interface configuration command to configure the access-list redirect interface.	15	INTERFACE_PORT_LIST
no access-list { redirect port-copy }	Use the no access-list redirect interface configuration command to disable the access-list redirect. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list mirror	Use the access-list mirror interface configuration command to enable access-list mirror. Use the no form of this command to disable access-list mirror. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list logging	Use the access-list logging interface configuration command to enable access-list logging. Use the no form of this command to disable access-list logging. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list shutdown	Use the access-list shutdown interface configuration command to enable access-list shutdown. Use the no form of this command to disable access-list shutdown. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list evc-policer <1-256>	Use the access-list evc-policer interface configuration command to configure the access-list evc-policer ID. The access-list	15	INTERFACE_PORT_LIST

	interface configuration will affect the received frames if it doesn't match any ACE.		
no access-list evc-policer	Use the no access-list evc-policer interface configuration command to configure the access-list evc-policer ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list policy <0-255>	Use the access-list policy interface configuration command to configure the access-list policy value. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
no access-list policy	Use the no access-list policy interface configuration command to restore the default access-list policy ID. The access-list interface configuration will affect the received frames if it doesn't match any ACE.	15	INTERFACE_PORT_LIST
access-list port-state	Use the access-list port-state interface configuration command to enable access-list port state. Use the no form of this command to disable access-list port state.	15	INTERFACE_PORT_LIST
access-list rate-limiter [<1~16>] { pps <1,2,4,8,16,32,64,128,256,512> 100pps <1-32767> kpps <1,2,4,8,16,32,64,128,256,512,1024> 100kbps <0-10000> }	Use the access-list rate-limiter global configuration command to configure the access-list rate-limiter.	15	INTERFACE_PORT_LIST
default access-list rate-limiter [<1~16>]	Use the default access-list rate-limiter global configuration command to restore the default setting of access-list rate-limiter.	15	GLOBAL_CONFIG
access-list ace [update] <1-256> [next {<1-256> last}] [ingress {switch <switch_id> switchport {<1-53> <1~53>}} interface {<port_type_id> <port_type_list>}} any]] [policy <0-255> [policy-bitmask <0x0-0xFF>]] [tag {tagged untagged any}} [vid {<1-4095> any}} [tag-	Use the access-list ace global configuration command to set the access-list ace. The command without the update keyword will create or overwrites an existing ACE, any unspecified parameter will be set to its default value. Use the update keyword to update an	15	GLOBAL_CONFIG

priority {<0-7> 0-1 2-3 4-5 6-7 0-3 4-7 any}} [dmac-type {unicast multicast broadcast any}] [frametype { any etype [etype-value {<0x600-0x7ff,0x801-0x805,0x807-0x86dc,0x86de-0xffff> any}] [smac {<mac_addr> any}] [dmac {<mac_addr> any}] arp [sip {<ipv4_subnet> any}] [dip {<ipv4_subnet> any}] [smac {<mac_addr> any}] [arp-opcode {arp rarp other any}] [arp-flag [arp-request {<0-1> any}] [arp-smac {<0-1> any}] [arp-tmac {<0-1> any}] [arp-len {<0-1> any}] [arp-ip {<0-1> any}] [arp-ether {<0-1> any}]]] ipv4 [sip {<ipv4_subnet> any}] [dip {<ipv4_subnet> any}] [ip-protocol {<0,2-5,7-16,18-255> any}] [ip-flag [ip-ttl {<0-1> any}] [ip-options {<0-1> any}] [ip-fragment {<0-1> any}]]] ipv4-icmp [sip {<ipv4_subnet> any}] [dip {<ipv4_subnet> any}] [icmp-type {<0-255> any}] [icmp-code {<0-255> any}] [ip-flag [ip-ttl {<0-1> any}] [ip-options {<0-1> any}] [ip-fragment {<0-1> any}]]] ipv4-udp [sip {<ipv4_subnet> any}] [dip {<ipv4_subnet> any}] [sport {<0-65535> [to <0-65535>] any}] [dport {<0-65535> [to <0-65535>] any}] [ip-flag [ip-ttl {<0-1> any}] [ip-options {<0-1> any}] [ip-fragment {<0-1> any}]]] ipv4-tcp [sip {<ipv4_subnet> any}] [dip {<ipv4_subnet> any}] [sport {<0-65535> [to <0-65535>] any}] [dport {<0-65535> [to <0-65535>] any}] [ip-flag [ip-ttl {<0-1> any}] [ip-options {<0-1> any}] [ip-fragment {<0-1> any}]]] [tcp-flag [tcp-fin {<0-1> any}] [tcp-syn {<0-1> any}] [tcp-rst {<0-1> any}] [tcp-psh {<0-1> any}] [tcp-ack {<0-1> any}] [tcp-urg {<0-1> any}]]] ipv6 [next-header {<0-5,7-16,18-57,59-255> any}] [sip {<ipv6_addr> [sip-bitmask <uint>] any}] [hop-limit	existing ACE and only specified parameter are modified. The ACE must ordered by an appropriate sequence, the received frame will only be hit on the first matched ACE. Use the next or last keyword to adjust the ACE's sequence order.		
--	--	--	--

<pre>{<0-1> any}} ipv6-icmp [sip {<ipv6_addr> [sip-bitmask <uint>] any}} [icmp-type {<0-255> any}} [icmp-code {<0-255> any}} [hop-limit {<0-1> any}}] ipv6-udp [sip {<ipv6_addr> [sip-bitmask <uint>] any}} [sport {<0-65535> [to <0-65535>] any}} [dport {<0-65535> [to <0-65535>] any}} [hop-limit {<0-1> any}}] ipv6-tcp [sip {<ipv6_addr> [sip-bitmask <uint>] any}} [sport {<0-65535> [to <0-65535>] any}} [dport {<0-65535> [to <0-65535>] any}} [hop-limit {<0-1> any}}] [tcp-flag [tcp-fin {<0-1> any}}] [tcp-syn {<0-1> any}}] [tcp-rst {<0-1> any}}] [tcp-psh {<0-1> any}}] [tcp-ack {<0-1> any}}] [tcp-urg {<0-1> any}}]]] [action {permit deny filter {switchport <1~53> interface <port_type_list>}}] [rate-limiter {<1-16> disable}}] [evc-policer {<1-256> disable}}] [{redirect port-copy} {switchport {<1-53> <1~53>} interface {<port_type_id> <port_type_list>} disable}}] [mirror [disable]] [logging [disable]] [shutdown [disable]] [lookup [disable]]</pre>			
no access-list ace <1~256>	Use the no access-list ace global configuration command to delete the access-list ace.	15	GLOBAL_CONFIG
show access-list [interface [<port_type_list>]] [rate-limiter [<1~16>]] [ace statistics [<1~256>]]	Use the show access-list privilege EXEC command without keywords to display the access-list configuration, or particularly the show access-list interface for the access-list interface configuration, or use the rate-limiter keyword to display access-list rate-limiter configuration, or use the ace keyword to display access-list ace configuration.	15	EXEC
clear access-list ace statistics	Use the clear access-list ace statistics privileged EXEC command to clear the statistics maintained by access-list, including	15	EXEC

	access-list interface statistics and ACE's statistics.		
show access-list ace-status [static] [link-oam] [loop-protect] [dhcp] [ptp] [upnp] [arp- inspection] [mep] [ipmc] [ip-source-guard] [ip-mgmt] [conflicts] [switch <switch_list>]	Use the show access-list ace-status privilege EXEC command without keywords to display the access-list ace status for all access-list users, or particularly the access-list user for the access-list ace status. Use conflicts keyword to display the access-list ace that doesn't apply on on the hardware. In other word, it means the specific ACE is not applied to the hardware due to hardware limitations.	15	EXEC
show aggregation [mode]		15	EXEC
aggregation mode { [smac] [dmac] [ip] [port] }		15	GLOBAL_CONFIG
no aggregation mode		15	GLOBAL_CONFIG
aggregation group <uint>		15	INTERFACE_PORT_LIST
no aggregation group		15	INTERFACE_PORT_LIST
ip arp inspection	Use the ip arp inspection global configuration command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.	13	GLOBAL_CONFIG
ip arp inspection vlan <vlan_list>	Use the ip arp inspection global configuration command to globally enable ARP inspection. Use the no form of this command to globally disable ARP inspection.	13	GLOBAL_CONFIG
ip arp inspection vlan <vlan_list> logging { deny permit all }		13	GLOBAL_CONFIG
no ip arp inspection vlan <vlan_list> logging		13	GLOBAL_CONFIG
ip arp inspection entry interface <port_type_id> <vlan_id> <mac_ucast> <ipv4_ucast>		13	GLOBAL_CONFIG
arp_inspection_translate		13	GLOBAL_CONFIG
arp_inspection_port_mode	Use the ip arp inspection trust interface configuration command to configure a port as trusted for ARP inspection purposes. Use the no form of this command to configure a port	13	INTERFACE_PORT_LIST

	as untrusted.		
arp_inspection_port_check_vlan	Use the ip arp inspection check-vlan interface configuration command to configure a port as VLAN mode for ARP inspection purposes. Use the no form of this command to configure a port as default.	13	INTERFACE_PORT_LIST
ip arp inspection logging { deny permit all }	Use the ip arp inspection logging interface configuration command to configure a port as some logging mode for ARP inspection purposes. Use the no form of this command to configure a port as logging none.	13	INTERFACE_PORT_LIST
no ip arp inspection logging	Use the no ip arp inspection logging interface configuration command to configure a port as default logging mode for ARP inspection purposes.	13	INTERFACE_PORT_LIST
show ip arp inspection [interface <port_type_list> vlan <vlan_list>]		0	EXEC
show ip arp inspection entry [dhcp-snooping static] [interface <port_type_list>]		13	EXEC
aaa authentication login { console telnet ssh http } { [local radius tacacs] ... }	Use the aaa authentication login command to configure the authentication methods.	15	GLOBAL_CONFIG
no aaa authentication login { console telnet ssh http }		15	GLOBAL_CONFIG
radius-server timeout <1-1000>	Use the radius-server timeout command to configure the global RADIUS timeout value.	15	GLOBAL_CONFIG
no radius-server timeout	Use the no radius-server timeout command to reset the global RADIUS timeout value to default.	15	GLOBAL_CONFIG
radius-server retransmit <1-1000>	Use the radius-server retransmit command to configure the global RADIUS retransmit value.	15	GLOBAL_CONFIG
no radius-server retransmit	Use the no radius-server retransmit command to reset the global RADIUS retransmit value to default.	15	GLOBAL_CONFIG
radius-server deadtime <1-1440>	Use the radius-server deadtime command to	15	GLOBAL_CONFIG

	configure the global RADIUS deadtime value.		
no radius-server deadtime	Use the no radius-server deadtime command to reset the global RADIUS deadtime value to default.	15	GLOBAL_CONFIG
radius-server key <line1-63>	Use the radius-server key command to configure the global RADIUS key.	15	GLOBAL_CONFIG
no radius-server key	Use the no radius-server key command to remove the global RADIUS key.	15	GLOBAL_CONFIG
radius-server attribute 4 <ipv4_ucast>		15	GLOBAL_CONFIG
no radius-server attribute 4		15	GLOBAL_CONFIG
radius-server attribute 95 <ipv6_ucast>		15	GLOBAL_CONFIG
no radius-server attribute 95		15	GLOBAL_CONFIG
radius-server attribute 32 <line1-253>		15	GLOBAL_CONFIG
no radius-server attribute 32		15	GLOBAL_CONFIG
radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>] [timeout <1-1000>] [retransmit <1-1000>] [key <line1-63>]	Use the radius-server host command to add a new RADIUS host.	15	GLOBAL_CONFIG
no radius-server host <word1-255> [auth-port <0-65535>] [acct-port <0-65535>]	Use the no radius-server host command to delete an existing RADIUS host.	15	GLOBAL_CONFIG
tacacs-server timeout <1-1000>	Use the tacacs-server timeout command to configure the global TACACS+ timeout value.	15	GLOBAL_CONFIG
no tacacs-server timeout	Use the no tacacs-server timeout command to reset the global TACACS+ timeout value to default.	15	GLOBAL_CONFIG
tacacs-server deadtime <1-1440>	Use the tacacs-server deadtime command to configure the global TACACS+ deadtime value.	15	GLOBAL_CONFIG
no tacacs-server deadtime	Use the no tacacs-server deadtime command to reset the global TACACS+ deadtime value to default.	15	GLOBAL_CONFIG
tacacs-server key <line1-63>	Use the tacacs-server key command to configure the global TACACS+ key.	15	GLOBAL_CONFIG
no tacacs-server key	Use the no tacacs-server key command to remove the global TACACS+ key.	15	GLOBAL_CONFIG
tacacs-server host <word1-255> [port <0-	Use the tacacs-server host command to add	15	GLOBAL_CONFIG

65535>] [timeout <1-1000>] [key <line1-63>]	a new TACACS+ host.		
no tacacs-server host <word1-255> [port <0-65535>]	Use the no tacacs-server host command to delete an existing TACACS+ host.	15	GLOBAL_CONFIG
show aaa	Use the show aaa command to view the currently active authentication login methods.	15	GLOBAL_CONFIG
show radius-server [statistics]	Use the show radius-server command to view the current RADIUS configuration and statistics.	15	EXEC
show tacacs-server	Use the show tacacs-server command to view the current TACACS+ configuration.	15	EXEC
clock summer-time <word16> recurring [<1-5> <1-7> <1-12> <hhmm> <1-5> <1-7> <1-12> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
clock summer-time <word16> date [<1-12> <1-31> <2000-2097> <hhmm> <1-12> <1-31> <2000-2097> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
no clock summer-time		13	GLOBAL_CONFIG
clock timezone <word16> <-23-23> [<0-59>]		13	GLOBAL_CONFIG
no clock timezone		13	GLOBAL_CONFIG
show clock detail		0	EXEC
clock summer-time <word16> recurring [<1-5> <1-7> <1-12> <hhmm> <1-5> <1-7> <1-12> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
clock summer-time <word16> date [<1-12> <1-31> <2000-2097> <hhmm> <1-12> <1-31> <2000-2097> <hhmm> [<1-1440>]]		13	GLOBAL_CONFIG
no clock summer-time		13	GLOBAL_CONFIG
clock timezone <word16> <-23-23> [<0-59>]		13	GLOBAL_CONFIG
no clock timezone		13	GLOBAL_CONFIG
show clock detail		0	EXEC
show ip dhcp detailed statistics { server client snooping relay normal-forward combined } [interface <port_type_list>]	Use the show ip dhcp detailed statistics user EXEC command to display statistics. Notice that the normal forward per-port TX statistics isn't increased if the incoming DHCP packet is done by L3 forwarding mechanism. Notice	0	EXEC

	that the normal forward per-port TX statistics isn't increased if the incoming DHCP packet is done by L3 forwarding mechanism.		
clear ip dhcp detailed statistics { server client snooping relay helper all } [interface <port_type_list>]	Use the clear ip dhcp detailed statistics privileged EXEC command to clear the statistics, or particularly the IP DHCP statistics for the interface. Notice that except for clear statistics on all interfaces, clear the statistics on specific port may not take effect on global statistics since it gathers the different layer overview.	15	EXEC
clear ip dhcp relay statistics	Use the clear ip dhcp relay statistics privileged EXEC command to clear the statistics maintained by IP DHCP relay.	15	EXEC
show ip dhcp relay [statistics]	Use the show ip dhcp relay user EXEC command without keywords to display the DHCP relay configuration, or use the statistics keyword to display statistics.	0	EXEC
ip dhcp relay	Use the ip dhcp relay global configuration command to enable the DHCP relay server. Use the no form of this command to disable the DHCP relay server.	15	GLOBAL_CONFIG
ip helper-address <ipv4_ucast>	Use the ip helper-address global configuration command to configure the host address of DHCP relay server.	15	GLOBAL_CONFIG
no ip helper-address	Use the no ip helper-address global configuration command to clear the host address of DHCP relay server.	15	GLOBAL_CONFIG
ip dhcp relay information option	Use the ip dhcp relay information option global configuration command to enable the DHCP relay information option. Use the no form of this command to disable the DHCP relay information option. The option 82 circuit ID format as "[vlan_id][module_id][port_no]". The first four characters represent the VLAN	15	GLOBAL_CONFIG

	ID, the fifth and sixth characters are the module ID(in standalone device it always equal 0, in stackable device it means switch ID), and the last two characters are the port number. For example, "00030108" means the DHCP message receive form VLAN ID 3, switch ID 1, port No 8. And the option 82 remote ID value is equal the switch MAC address.		
ip dhcp relay information policy { drop keep replace }	Use the ip dhcp relay information policy global configuration command to configure the DHCP relay information policy. When DHCP relay information mode operation is enabled, if the agent receives a DHCP message that already contains relay agent information it will enforce the policy. The 'Replace' policy is invalid when relay information mode is disabled.	15	GLOBAL_CONFIG
no ip dhcp relay information policy	Use the ip dhcp relay information policy global configuration command to restore the default DHCP relay information policy.	15	GLOBAL_CONFIG
show ip dhcp pool [<word32>]		0	EXEC
show ip dhcp pool counter [<word32>]		debug	EXEC
show ip dhcp excluded-address		0	EXEC
show ip dhcp server binding [state {allocated committed expired}] [type {automatic manual expired}]		0	EXEC
show ip dhcp server binding <ipv4_ucast>		0	EXEC
show ip dhcp server		0	EXEC
show ip dhcp server statistics		0	EXEC
show ip dhcp server declined-ip		0	EXEC
show ip dhcp server declined-ip <ipv4_addr>		0	EXEC
clear ip dhcp server binding <ipv4_ucast>		13	EXEC
clear ip dhcp server binding { automatic manual expired }		13	EXEC

clear ip dhcp server statistics		13	EXEC
ip dhcp server		13	GLOBAL_CONFIG
ip dhcp excluded-address <ipv4_addr> [<ipv4_addr>]		13	GLOBAL_CONFIG
no ip dhcp pool <word32>		13	GLOBAL_CONFIG
ip dhcp server		13	INTERFACE_VLAN
network <ipv4_addr> <ipv4_netmask>		13	DHCP_POOL
no network		13	DHCP_POOL
broadcast <ipv4_addr>		13	DHCP_POOL
no broadcast		13	DHCP_POOL
default-router <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no default-router		13	DHCP_POOL
lease { <0-365> [<0-23> [<uint>]] infinite }		13	DHCP_POOL
no lease		13	DHCP_POOL
domain-name <word128>		13	DHCP_POOL
no domain-name		13	DHCP_POOL
dns-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no dns-server		13	DHCP_POOL
ntp-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no ntp-server		13	DHCP_POOL
netbios-name-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL
no netbios-name-server		13	DHCP_POOL
netbios-node-type { b-node h-node m-node p- node }		13	DHCP_POOL
no netbios-node-type		13	DHCP_POOL
netbios-scope <line128>		13	DHCP_POOL
no netbios-scope		13	DHCP_POOL
nis-domain-name <word128>		13	DHCP_POOL
no nis-domain-name		13	DHCP_POOL
nis-server <ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast> [<ipv4_ucast>]]]		13	DHCP_POOL

no nis-server		13	DHCP_POOL
host <ipv4_ucast> <ipv4_netmask>		13	DHCP_POOL
no host		13	DHCP_POOL
client-identifier { fqdn <line128> mac-address <mac_addr> }		13	DHCP_POOL
no client-identifier		13	DHCP_POOL
hardware-address <mac_ucast>		13	DHCP_POOL
no hardware-address		13	DHCP_POOL
client-name <word32>		13	DHCP_POOL
no client-name		13	DHCP_POOL
vendor class-identifier <string64> specific-info <hexval32>		13	DHCP_POOL
no vendor class-identifier <string64>		13	DHCP_POOL
debug dhcp server memsize		debug	EXEC
debug dhcp server declined add <ipv4_addr>		debug	EXEC
debug dhcp server declined delete <ipv4_addr>		debug	EXEC
show ip dhcp snooping [interface <port_type_list>]	Use the show ip dhcp snooping user EXEC command to display the DHCP snooping configuration.	0	EXEC
show ip dhcp snooping [statistics] [interface <port_type_list>]	Use the show ip dhcp snooping user EXEC command without keywords to display the DHCP snooping configuration, or particularly the ip dhcp snooping statistics for the interface, or use the statistics keyword to display statistics.	0	EXEC
clear ip dhcp snooping statistics [interface <port_type_list>]	Use the clear ip dhcp snooping statistics privileged EXEC command to clear the statistics maintained by IP DHCP snooping, or particularly the IP DHCP snooping statistics for the interface.	15	EXEC
ip dhcp snooping	Use the ip dhcp snooping global configuration command to globally enable DHCP snooping. Use the no form of this command to globally disable DHCP snooping.	15	GLOBAL_CONFIG
dhcp_snooping_port_mode	Use the ip dhcp snooping trust interface	15	INTERFACE_PORT_LIST

	configuration command to configure a port as trusted for DHCP snooping purposes. Use the no form of this command to configure a port as untrusted.		
show ip dhcp snooping table	Use the show ip dhcp snooping table user EXEC command to display the IP assigned information that is obtained from DHCP server except for local VLAN interface IP addresses.	15	EXEC
ip name-server { <ipv4_ucast> dhcp [interface vlan <vlan_id>] }	Set the DNS server for resolving domain names	15	GLOBAL_CONFIG
no ip name-server	Stop resolving domain names by accessing DNS server	15	GLOBAL_CONFIG
show ip name-server	Display the active domain name server information	0	EXEC
ip dns proxy	Enable DNS proxy service	15	GLOBAL_CONFIG
show version	Use show version to display firmware information.	0	EXEC
firmware upgrade <word>	Use firmware upgrade to load new firmware image to the switch.	15	EXEC
firmware swap	Use firmware swap to swap the active and alternative firmware images.	15	EXEC
show green-ethernet fan	Shows Fan status (chip Temperature and fan speed).	15	GLOBAL_CONFIG
green-ethernet fan temp-on <-127-127>	Sets temperature at which to turn fan on to the lowest speed.	15	GLOBAL_CONFIG
no green-ethernet fan temp-on	Sets temperature at which to turn fan on to the lowest speed to default.	15	GLOBAL_CONFIG
green-ethernet fan temp-max <-127-127>	Sets temperature where the fan must be running at full speed.	15	GLOBAL_CONFIG
no green-ethernet fan temp-max	Sets temperature at which the fan shall be running at full speed to default.	15	GLOBAL_CONFIG
green-ethernet led interval <0~24> intensity <0-100>	Use green-ethernet led interval to configure the LED intensity at specific interval of the day.	15	GLOBAL_CONFIG

no green-ethernet led interval <0~24>		15	GLOBAL_CONFIG
green-ethernet led on-event { [link-change <0-65535>] [error] } *1	Use green-ethernet led on-event to configure when to turn LEDs intensity to 100%%.	15	GLOBAL_CONFIG
no green-ethernet led on-event [link-change] [error]		15	GLOBAL_CONFIG
show green-ethernet eee [interface <port_type_list>]	Shows Green Ethernet EEE status.	15	EXEC
show green-ethernet short-reach [interface <port_type_list>]	Shows Green Ethernet short-reach status.	15	EXEC
show green-ethernet energy-detect [interface <port_type_list>]	Shows Green Ethernet energy-detect status.	15	EXEC
show green-ethernet [interface <port_type_list>]	Shows Green Ethernet status.	15	EXEC
green-ethernet eee	Sets EEE mode.	15	INTERFACE_PORT_LIST
green-ethernet eee urgent-queues [<range_list>]	Sets EEE urgent queues.	15	INTERFACE_PORT_LIST
green-ethernet eee optimize-for-power	Sets if EEE should be optimized for least traffic latency or least power consumption	15	GLOBAL_CONFIG
green-ethernet energy-detect	Enables energy-detect power savings.	15	INTERFACE_PORT_LIST
green-ethernet short-reach	Enables short-reach power savings.	15	INTERFACE_PORT_LIST
show ip http server secure status	Use the show ip http server secure status privileged EXEC command to display the secure HTTP web server status.	15	EXEC
ip http secure-server	Use the ip http secure-server global configuration command to enable the secure HTTP web server. Use the no form of this command to disable the secure HTTP web server.	15	GLOBAL_CONFIG
ip http secure-redirect	Use the http secure-redirect global configuration command to enable the secure HTTP web redirection. When the secure HTTP web server is enabled, the feature automatic redirect the none secure HTTP web connection to the secure HTTP web connection. Use the no form of this command to disable the secure HTTP web redirection.	15	GLOBAL_CONFIG
reload { { cold warm } [sid <1-16>] }	Reload system, either cold (reboot) or restore	15	EXEC

{ defaults [keep-ip] }	defaults without reboot.		
show running-config [all-defaults]		15	EXEC
show running-config feature <word> [all-defaults]		15	EXEC
show running-config interface <port_type_list> [all-defaults]		15	EXEC
show running-config interface vlan <vlan_list> [all-defaults]		15	EXEC
show running-config vlan <vlan_list> [all-defaults]		15	EXEC
show running-config line { console vty } <range_list> [all-defaults]		15	EXEC
copy { startup-config running-config <word> } { startup-config running-config <word> } [syntax-check]		15	EXEC
dir		15	EXEC
more <word>		15	EXEC
delete <word>		debug	EXEC
debug icfg wipe-flash-fs-conf-block		debug	EXEC
debug icfg wipe-specific-block {local global} <uint>		debug	EXEC
debug icfg silent-upgrade status		debug	EXEC
debug icfg dir		debug	EXEC
debug icfg error-trace <line>		debug	EXEC
ip routing	Enable routing for IPv4 and IPv6	15	GLOBAL_CONFIG
no ip routing	Disable routing for IPv4 and IPv6	15	GLOBAL_CONFIG
ip address {{<ipv4_addr> <ipv4_netmask>} {dhcp [fallback <ipv4_addr> <ipv4_netmask> [timeout <uint>]]}}	IP address configuration	15	INTERFACE_VLAN
ip dhcp retry interface vlan <vlan_id>	Restart the dhcp client	15	EXEC
no ip address	IP address configuration	15	INTERFACE_VLAN
ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>	Add new IP route	15	GLOBAL_CONFIG
no ip route <ipv4_addr> <ipv4_netmask> <ipv4_addr>	Delete an existing IP route	15	GLOBAL_CONFIG

show interface vlan [<vlan_list>]	Vlan interface status	15	EXEC
show ip interface brief	Brief IP interface status	0	EXEC
show ip arp	Print ARP table	0	EXEC
clear ip arp	Clear ARP cache	0	EXEC
show ip route	Routing table status	0	EXEC
ping ip <word1-255> [repeat <1-60>] [size <2-1452>] [interval <0-30>]		0	EXEC
clear ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]		0	EXEC
show ip statistics [system] [interface vlan <vlan_list>] [icmp] [icmp-msg <0~255>]		0	EXEC
debug ipstack log [ERR NOERR] [WARNING NOWARNING] [NOTICE NONOTICE] [INFO NOINFO] [DEBUG NODEBUG] [MDEBUG NOMDEBUG] [IOCTL NOIOCTL] [INIT NOINIT] [ADDR NOADDR] [FAIL NOFAIL] [EMERG NOEMERG] [CRIT NOCRIT]		debug	EXEC
debug ip kmem		debug	EXEC
debug ip route		debug	EXEC
debug ip sockets		debug	EXEC
debug ip lpm stat ip <vlan_list>		debug	EXEC
debug ip lpm stat ipv6 <vlan_list>		debug	EXEC
debug ip lpm stat clear <vlan_list>		debug	EXEC
debug ip lpm sticky clear		debug	EXEC
debug ip lpm usage		debug	EXEC
debug ip global interface table change		debug	EXEC
debug ip vlan ipv4 created <vlan_list>		debug	EXEC
debug ip vlan ipv4 changed <vlan_list>		debug	EXEC
debug ip vlan ipv6 created <vlan_list>		debug	EXEC
debug ip vlan ipv6 changed <vlan_list>		debug	EXEC
show ip igmp snooping mrouter [detail]		0	EXEC
clear ip igmp snooping [vlan <vlan_list>] statistics		15	EXEC
show ip igmp snooping [vlan <vlan_list>] [group-database [interface <port_type_list>]		0	EXEC

[sfm-information]] [detail]			
ip igmp snooping		15	GLOBAL_CONFIG
ip igmp unknown-flooding		15	GLOBAL_CONFIG
ip igmp host-proxy [leave-proxy]		15	GLOBAL_CONFIG
ip igmp ssm-range <ipv4_mcast> <4-32>		15	GLOBAL_CONFIG
no ip igmp ssm-range		15	GLOBAL_CONFIG
ip igmp snooping vlan <vlan_list>		15	GLOBAL_CONFIG
no ip igmp snooping vlan [<vlan_list>]		15	GLOBAL_CONFIG
ip igmp snooping		15	INTERFACE_VLAN
ip igmp snooping querier { election address <ipv4_ucast> }		15	INTERFACE_VLAN
no ip igmp snooping querier { election address }		15	INTERFACE_VLAN
ip igmp snooping compatibility { auto v1 v2 v3 }		15	INTERFACE_VLAN
no ip igmp snooping compatibility		15	INTERFACE_VLAN
ip igmp snooping priority <0-7>		15	INTERFACE_VLAN
no ip igmp snooping priority		15	INTERFACE_VLAN
ip igmp snooping robustness-variable <1-255>		15	INTERFACE_VLAN
no ip igmp snooping robustness-variable		15	INTERFACE_VLAN
ip igmp snooping query-interval <1-31744>		15	INTERFACE_VLAN
no ip igmp snooping query-interval		15	INTERFACE_VLAN
ip igmp snooping query-max-response-time <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping query-max-response-time		15	INTERFACE_VLAN
ip igmp snooping last-member-query-interval <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping last-member-query-interval		15	INTERFACE_VLAN
ip igmp snooping unsolicited-report-interval <0-31744>		15	INTERFACE_VLAN
no ip igmp snooping unsolicited-report-interval		15	INTERFACE_VLAN
ip igmp snooping immediate-leave		15	INTERFACE_VLAN
ip igmp snooping mrouter		15	INTERFACE_PORT_LIST
ip igmp snooping max-groups <1-10>		15	INTERFACE_PORT_LIST
no ip igmp snooping max-groups		15	INTERFACE_PORT_LIST
ip igmp snooping filter <word16>		15	INTERFACE_PORT_LIST

no ip igmp snooping filter		15	INTERFACE_PORT_LIST
ipv6 mld snooping		15	GLOBAL_CONFIG
ipv6 mld unknown-flooding		15	GLOBAL_CONFIG
ipv6 mld host-proxy [leave-proxy]		15	GLOBAL_CONFIG
ipv6 mld ssm-range <ipv6_mcast> <8-128>		15	GLOBAL_CONFIG
no ipv6 mld ssm-range		15	GLOBAL_CONFIG
ipv6 mld snooping vlan <vlan_list>		15	GLOBAL_CONFIG
no ipv6 mld snooping vlan [<vlan_list>]		15	GLOBAL_CONFIG
ipv6 mld snooping immediate-leave		15	INTERFACE_PORT_LIST
ipv6 mld snooping mrouter		15	INTERFACE_PORT_LIST
ipv6 mld snooping max-groups <1-10>		15	INTERFACE_PORT_LIST
no ipv6 mld snooping max-groups		15	INTERFACE_PORT_LIST
ipv6 mld snooping filter <word16>		15	INTERFACE_PORT_LIST
no ipv6 mld snooping filter		15	INTERFACE_PORT_LIST
show ipv6 mld snooping mrouter [detail]		0	EXEC
clear ipv6 mld snooping [vlan <vlan_list>] statistics		15	EXEC
show ipv6 mld snooping [vlan <vlan_list>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC
ipv6 mld snooping		15	INTERFACE_VLAN
ipv6 mld snooping querier election		15	INTERFACE_VLAN
ipv6 mld snooping compatibility { auto v1 v2 }		15	INTERFACE_VLAN
no ipv6 mld snooping compatibility		15	INTERFACE_VLAN
ipv6 mld snooping priority <0-7>		15	INTERFACE_VLAN
no ipv6 mld snooping priority		15	INTERFACE_VLAN
ipv6 mld snooping robustness-variable <1-255>		15	INTERFACE_VLAN
no ipv6 mld snooping robustness-variable		15	INTERFACE_VLAN
ipv6 mld snooping query-interval <1-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping query-interval		15	INTERFACE_VLAN
ipv6 mld snooping query-max-response-time <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping query-max-response-time		15	INTERFACE_VLAN
ipv6 mld snooping last-member-query-interval <0-31744>		15	INTERFACE_VLAN

no ipv6 mld snooping last-member-query-interval		15	INTERFACE_VLAN
ipv6 mld snooping unsolicited-report-interval <0-31744>		15	INTERFACE_VLAN
no ipv6 mld snooping unsolicited-report-interval		15	INTERFACE_VLAN
ip verify source		13	GLOBAL_CONFIG
i ip verify source		13	INTERFACE_PORT_LIST
ip verify source limit <0-2>		13	INTERFACE_PORT_LIST
no ip verify source limit		13	INTERFACE_PORT_LIST
ip verify source translate		13	GLOBAL_CONFIG
show ip verify source [interface <port_type_list>]		0	EXEC
show ip source binding [dhcp-snooping static] [interface <port_type_list>]		13	EXEC
ip source binding interface <port_type_id> <vlan_id> <ipv4_ucast> <mac_ucast>		13	GLOBAL_CONFIG
ip source binding interface <port_type_id> <vlan_id> <ipv4_ucast> <ipv4_netmask>		13	GLOBAL_CONFIG
show lacp { internal statistics system-id neighbour }	Show LACP configuration and status	15	EXEC
clear lacp statistics	Clear all LACP statistics	15	EXEC
lacp system-priority <1-65535>	Set the LACP system priority	15	GLOBAL_CONFIG
lacp	Enable LACP on an interface	15	INTERFACE_PORT_LIST
lacp key { <1-65535> auto }	Set the LACP key	15	INTERFACE_PORT_LIST
lacp role { active passive }	Set the LACP role, active or passive in transmitting BPDUs	15	INTERFACE_PORT_LIST
lacp timeout { fast slow }	Set the LACP timeout, i.e. how fast to transmit BPDUs, once a sec or once each 30 sec.	15	INTERFACE_PORT_LIST
lacp port-priority <1-65535>	Set the lacp port priority,	15	INTERFACE_PORT_LIST
lldp holdtime <2-10>	Sets LLDP hold time (The neighbor switch will discarded the LLDP information after \"hold time\" multiplied with \"timer\" seconds)	15	GLOBAL_CONFIG
no lldp holdtime		15	GLOBAL_CONFIG
lldp timer <5-32768>	Sets LLDP TX interval (The time between each LLDP frame transmitted in seconds).	15	GLOBAL_CONFIG
no lldp timer		15	GLOBAL_CONFIG

lldp reinit <1-10>	Sets LLDP reinitialization delay.	15	GLOBAL_CONFIG
no lldp reinit	Sets LLDP reinitialization delay.	15	GLOBAL_CONFIG
lldp tlv-select {management-address port-description system-capabilities system-description system-name}	Enables/disables LLDP optional TLVs.	15	INTERFACE_PORT_LIST
lldp transmit	Sets if switch shall transmit LLDP frames.	15	INTERFACE_PORT_LIST
lldp receive	Sets if switch shall update LLDP entry table with incoming LLDP information.	15	INTERFACE_PORT_LIST
show lldp neighbors [interface <port_type_list>]	Shows the LLDP neighbors information.	0	EXEC
show lldp statistics [interface <port_type_list>]	Shows the LLDP statistics information.	0	EXEC
clear lldp statistics	Clears the LLDP statistics.	0	EXEC
lldp transmission-delay <1-8192>	Sets LLDP transmission-delay. LLDP transmission delay (the amount of time that the transmission of LLDP frames will delayed after LLDP configuration has changed) in seconds.)	15	GLOBAL_CONFIG
no lldp transmission-delay		15	GLOBAL_CONFIG
lldp cdp-aware	Configures if the interface shall be CDP aware (CDP discovery information is added to the LLDP neighbor table)	15	INTERFACE_PORT_LIST
show lldp med remote-device [interface <port_type_list>]	Show LLDP-MED neighbor device information.	0	EXEC
show lldp med media-vlan-policy [<0~31>]	Show media vlan policy(ies)	0	EXEC
lldp med location-tlv latitude { north south } <word8>	Use the lldp med location-tlv latitude to configure the location latitude.	15	GLOBAL_CONFIG
no lldp med location-tlv latitude	Use no lldp med location-tlv latitude to configure the latitude location to north 0 degrees.	15	GLOBAL_CONFIG
lldp med location-tlv longitude { west east } <word9>	Use the lldp med location-tlv longitude to configure the location longitude.	15	GLOBAL_CONFIG
no lldp med location-tlv longitude	Use no lldp med location-tlv longitude to configure the longitude location to north 0 degrees.	15	GLOBAL_CONFIG
lldp med location-tlv altitude { meters floors } <word11>	Use the lldp med location-tlv altitude to configure the location altitude.	15	GLOBAL_CONFIG

no lldp med location-tlv altitude	Use the lldp med location-tlv altitude to configure the location altitude.	15	GLOBAL_CONFIG
lldp med location-tlv civic-addr { country state county city district block street leading-street-direction trailing-street-suffix street-suffix house-no house-no-suffix landmark additional-info name zip-code building apartment floor room-number place-type postal-community-name p-o-box additional-code } <string250>	Use lldp med location-tlv civic-addr to configure the civic address.	15	GLOBAL_CONFIG
no lldp med location-tlv civic-addr { country state county city district block street leading-street-direction trailing-street-suffix street-suffix house-no house-no-suffix landmark additional-info name zip-code building apartment floor room-number place-type postal-community-name p-o-box additional-code }		15	GLOBAL_CONFIG
lldp med location-tlv elin-addr <dword25>	Use the lldp med location-tlv elin-addr to configure value for the Emergency Call Service	15	GLOBAL_CONFIG
no lldp med location-tlv elin-addr	Use the no lldp med location-tlv elin-addr to configure value for the Emergency Call Service to default value.	15	GLOBAL_CONFIG
lldp med transmit-tlv [capabilities] [location] [network-policy]	Use the lldp med transmit-tlv to configure which TLVs to transmit to link partner.	15	INTERFACE_PORT_LIST
no lldp med transmit-tlv [capabilities] [location] [network-policy]		15	INTERFACE_PORT_LIST
lldp med datum { wgs84 nad83-navd88 nad83-mllw }	Use the lldp med datum to configure the datum (geodetic system) to use.	15	GLOBAL_CONFIG
no lldp med datum		15	GLOBAL_CONFIG
lldp med fast <1-10>	Use the lldp med fast to configure the number of times the fast start LLDPDU are being sent during the activation of the fast start mechanism defined by LLDP-MED (1-10).	15	GLOBAL_CONFIG

no lldp med fast		15	GLOBAL_CONFIG
lldp med media-vlan-policy <0-31> { voice voice-signaling guest-voice-signaling guest-voice softphone-voice video-conferencing streaming-video video-signaling } { tagged <vlan_id> untagged } [l2-priority <0-7>] [dscp <0-63>]	Use the media-vlan-policy to create a policy, which can be assigned to an interface.	15	GLOBAL_CONFIG
no lldp med media-vlan-policy <0~31>		15	GLOBAL_CONFIG
lldp med media-vlan policy-list <range_list>	Use the media-vlan policy-list to assign policy to the interface.	15	INTERFACE_PORT_LIST
loop-protect	Loop protection configuration	15	GLOBAL_CONFIG
loop-protect transmit-time <1-10>	Loop protection transmit time interval	15	GLOBAL_CONFIG
no loop-protect transmit-time		15	GLOBAL_CONFIG
loop-protect shutdown-time <0-604800>	Loop protection shutdown time interval	15	GLOBAL_CONFIG
no loop-protect shutdown-time		15	GLOBAL_CONFIG
loop-protect	Loop protection configuration	15	INTERFACE_PORT_LIST
loop-protect action { [shutdown] [log] } *1		15	INTERFACE_PORT_LIST
no loop-protect action		15	INTERFACE_PORT_LIST
loop-protect tx-mode		15	INTERFACE_PORT_LIST
show loop-protect [interface <port_type_list>]		13	EXEC
mac address-table learning [secure]	Enable learning on port	15	INTERFACE_PORT_LIST
show mac address-table [conf static aging-time { { learning count } [interface <port_type_list>] } { address <mac_addr> [vlan <vlan_id>] } vlan <vlan_id> interface <port_type_list>]		0	EXEC
clear mac address-table		15	EXEC
mac address-table static <mac_addr> vlan <vlan_id> interface <port_type_list>	Assign a static mac address to this port	15	GLOBAL_CONFIG
mac address-table aging-time <0,10-1000000>	Set switch aging time, 0 to disable.	15	GLOBAL_CONFIG
no mac address-table aging-time	Default aging time.	15	GLOBAL_CONFIG
monitor destination interface <port_type_id>	Sets monitor destination port.	15	GLOBAL_CONFIG
no monitor destination	Sets monitor destination port.	15	GLOBAL_CONFIG
monitor source { { interface <port_type_list> } { cpu [<range_list>] } } { both rx tx }	Sets monitor source port(s).	15	GLOBAL_CONFIG
no monitor source { { interface <port_type_list> }	Sets monitor source port(s).	15	GLOBAL_CONFIG

{ cpu [<range_list>] }			
debug chip [{ 0 1 all }]		debug	EXEC
show spanning-tree [summary active { interface <port_type_list> } { detailed [interface <port_type_list>] } { mst [configuration { <0-7> [interface <port_type_list>] }] }]		15	EXEC
clear spanning-tree { { statistics [interface <port_type_list>] } { detected-protocols [interface <port_type_list>] } }		15	EXEC
spanning-tree mode { stp rstp mstp }		15	GLOBAL_CONFIG
no spanning-tree mode		15	GLOBAL_CONFIG
spanning-tree transmit hold-count <1-10>		15	GLOBAL_CONFIG
no spanning-tree transmit hold-count		15	GLOBAL_CONFIG
spanning-tree mst max-hops <6-40>		15	GLOBAL_CONFIG
no spanning-tree mst max-hops		15	GLOBAL_CONFIG
spanning-tree mst max-age <6-40> [forward-time <4-30>]		15	GLOBAL_CONFIG
no spanning-tree mst max-age		15	GLOBAL_CONFIG
spanning-tree mst forward-time <4-30>		15	GLOBAL_CONFIG
no spanning-tree mst forward-time		15	GLOBAL_CONFIG
spanning-tree edge bpdu-filter		15	GLOBAL_CONFIG
spanning-tree edge bpdu-guard		15	GLOBAL_CONFIG
spanning-tree recovery interval <30-86400>		15	GLOBAL_CONFIG
no spanning-tree recovery interval		15	GLOBAL_CONFIG
spanning-tree mst <0-7> priority <0-61440>		15	GLOBAL_CONFIG
no spanning-tree mst <0-7> priority		15	GLOBAL_CONFIG
spanning-tree mst <0-7> vlan <vlan_list>		15	GLOBAL_CONFIG
no spanning-tree mst <0-7> vlan		15	GLOBAL_CONFIG
spanning-tree mst name <word32> revision <0- 65535>		15	GLOBAL_CONFIG
no spanning-tree mst name		15	GLOBAL_CONFIG
spanning-tree		15	INTERFACE_PORT_LIST
spanning-tree edge		15	INTERFACE_PORT_LIST
spanning-tree auto-edge		15	INTERFACE_PORT_LIST
spanning-tree link-type { point-to-point shared		15	INTERFACE_PORT_LIST

auto }			
no spanning-tree link-type		15	INTERFACE_PORT_LIST
spanning-tree restricted-role		15	INTERFACE_PORT_LIST
spanning-tree restricted-tcn		15	INTERFACE_PORT_LIST
spanning-tree bpdu-guard		15	INTERFACE_PORT_LIST
spanning-tree mst <0-7> cost { <1-200000000> auto }		15	INTERFACE_PORT_LIST
no spanning-tree mst <0-7> cost		15	INTERFACE_PORT_LIST
spanning-tree mst <0-7> port-priority <0-240>		15	INTERFACE_PORT_LIST
no spanning-tree mst <0-7> port-priority		15	INTERFACE_PORT_LIST
spanning-tree		15	STP_AGGR
spanning-tree edge		15	STP_AGGR
spanning-tree auto-edge		15	STP_AGGR
spanning-tree link-type { point-to-point shared auto }		15	STP_AGGR
no spanning-tree link-type		15	STP_AGGR
spanning-tree restricted-role		15	STP_AGGR
spanning-tree restricted-tcn		15	STP_AGGR
spanning-tree bpdu-guard		15	STP_AGGR
spanning-tree mst <0-7> cost { <1-200000000> auto }		15	STP_AGGR
no spanning-tree mst <0-7> cost		15	STP_AGGR
spanning-tree mst <0-7> port-priority <0-240>		15	STP_AGGR
no spanning-tree mst <0-7> port-priority		15	STP_AGGR
mvr vlan <vlan_list> type { source receiver }		15	INTERFACE_PORT_LIST
mvr name <word16> type { source receiver }		15	INTERFACE_PORT_LIST
no mvr vlan <vlan_list> type		15	INTERFACE_PORT_LIST
no mvr name <word16> type		15	INTERFACE_PORT_LIST
mvr immediate-leave		15	INTERFACE_PORT_LIST
clear mvr [vlan <vlan_list> name <word16>] statistics		15	EXEC
show mvr [vlan <vlan_list> name <word16>] [group-database [interface <port_type_list>] [sfm-information]] [detail]		0	EXEC
mvr		15	GLOBAL_CONFIG

mvr vlan <vlan_list> [name <word16>]		15	GLOBAL_CONFIG
no mvr vlan <vlan_list>		15	GLOBAL_CONFIG
mvr vlan <vlan_list> mode { dynamic compatible }		15	GLOBAL_CONFIG
mvr name <word16> mode { dynamic compatible }		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> mode		15	GLOBAL_CONFIG
no mvr name <word16> mode		15	GLOBAL_CONFIG
mvr vlan <vlan_list> igmp-address <ipv4_ucast>		15	GLOBAL_CONFIG
mvr name <word16> igmp-address <ipv4_ucast>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> igmp-address		15	GLOBAL_CONFIG
no mvr name <word16> igmp-address		15	GLOBAL_CONFIG
mvr vlan <vlan_list> frame priority <0-7>		15	GLOBAL_CONFIG
mvr vlan <vlan_list> frame tagged		15	GLOBAL_CONFIG
mvr name <word16> frame priority <0-7>		15	GLOBAL_CONFIG
mvr name <word16> frame tagged		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> frame priority		15	GLOBAL_CONFIG
no mvr name <word16> frame priority		15	GLOBAL_CONFIG
mvr vlan <vlan_list> last-member-query-interval <0-31744>		15	GLOBAL_CONFIG
mvr name <word16> last-member-query-interval <0-31744>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> last-member-query-interval		15	GLOBAL_CONFIG
no mvr name <word16> last-member-query-interval		15	GLOBAL_CONFIG
mvr vlan <vlan_list> channel <word16>		15	GLOBAL_CONFIG
no mvr vlan <vlan_list> channel		15	GLOBAL_CONFIG
no mvr name <word16> channel		15	GLOBAL_CONFIG
show dot1x statistics { eapol radius all } [interface <port_type_list>]	Shows statistics for either eapol or radius.	0	EXEC
show dot1x status [interface <port_type_list>] [brief]	Shows dot1x status, such as admin state, port state and last source.	0	EXEC
clear dot1x statistics [interface <port_type_list>]	Clears the statistics counters	15	EXEC
dot1x re-authentication	Set Re-authentication state	15	GLOBAL_CONFIG

dot1x authentication timer re-authenticate <1-3600>	The period between re-authentication attempts in seconds	15	GLOBAL_CONFIG
no dot1x authentication timer re-authenticate		15	GLOBAL_CONFIG
dot1x timeout tx-period <1-65535>	the time between EAPOL retransmissions.	15	GLOBAL_CONFIG
no dot1x timeout tx-period		15	GLOBAL_CONFIG
dot1x authentication timer inactivity <10-1000000>	Time in seconds between check for activity on successfully authenticated MAC addresses.	15	GLOBAL_CONFIG
no dot1x authentication timer inactivity		15	GLOBAL_CONFIG
dot1x timeout quiet-period <10-1000000>	Time in seconds before a MAC-address that failed authentication gets a new authentication chance.	15	GLOBAL_CONFIG
no dot1x timeout quiet-period		15	GLOBAL_CONFIG
dot1x re-authenticate	Refresh (restart) 802.1X authentication process.	15	INTERFACE_PORT_LIST
dot1x initialize [interface <port_type_list>]	Force re-authentication immediately	15	EXEC
dot1x system-auth-control	Set the global NAS state	15	GLOBAL_CONFIG
dot1x port-control { force-authorized force-unauthorized auto single multi mac-based }	Sets the port security state.	15	INTERFACE_PORT_LIST
no dot1x port-control	Sets the port security state.	15	INTERFACE_PORT_LIST
dot1x guest-vlan	Enables/disables guest VLAN	15	INTERFACE_PORT_LIST
dot1x max-reauth-req <1-255>	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN	15	GLOBAL_CONFIG
no dot1x max-reauth-req	The number of times a Request Identity EAPOL frame is sent without response before considering entering the Guest VLAN	15	GLOBAL_CONFIG
dot1x guest-vlan <1-4095>	Guest VLAN ID used when entering the Guest VLAN.	15	GLOBAL_CONFIG
no dot1x guest-vlan	Guest VLAN ID used when entering the Guest VLAN.	15	GLOBAL_CONFIG
dot1x guest-vlan supplicant	The switch remembers if an EAPOL frame has been received on the port for the life-time of the port. Once the switch considers whether to enter the Guest VLAN, it will first	15	GLOBAL_CONFIG

	check if this option is enabled or disabled. If disabled (unchecked; default), the switch will only enter the Guest VLAN if an EAPOL frame has not been received on the port for the life-time of the port. If enabled (checked), the switch will consider entering the Guest VLAN even if an EAPOL frame has been received on the port for the life-time of the port.		
dot1x radius-qos	Enables/disables per-port state of RADIUS-assigned QoS.	15	INTERFACE_PORT_LIST
dot1x radius-vlan	Enables/disables per-port state of RADIUS-assigned VLAN.	15	INTERFACE_PORT_LIST
dot1x feature { [guest-vlan] [radius-qos] [radius-vlan] } *1	Globally enables/disables a dot1x feature functionality	15	GLOBAL_CONFIG
show dot1x statistics { eapol radius all } [interface <port_type_list>]	Shows statistics for either eapol or radius.	0	EXEC
ntp	Enable NTP	13	GLOBAL_CONFIG
ntp server <1-5> ip-address {<ipv4_ucast> <ipv6_ucast> <hostname>}		13	GLOBAL_CONFIG
ntp server <1-5> ip-address {<ipv4_ucast> <hostname>}		13	GLOBAL_CONFIG
no_ntp_server_ip_address		13	GLOBAL_CONFIG
show ntp status		13	EXEC
show platform phy [interface <port_type_list>]	Show PHY module's information for all or a given interface	15	EXEC
show platform phy id [interface <port_type_list>]	Platform PHY's IDs	15	EXEC
show platform phy instance		15	EXEC
show platform phy failover		15	EXEC
platform phy instance restart { cool warm }		15	EXEC
platform phy instance default-activate		15	EXEC
show platform phy status [interface <port_type_list>]		15	EXEC
no platform phy instance		15	GLOBAL_CONFIG
platform phy failover		15	INTERFACE_PORT_LIST

show interface <port_type_list> statistics [{ packets bytes errors discards filtered { priority [<0~7> } }] [{ up down }]	Shows the statistics for the interface.	0	EXEC
show interface <port_type_list> veriphy	Run and display cable diagnostics.	0	EXEC
clear statistics [interface] <port_type_list>	Clears the statistics for the interface.	0	EXEC
show interface <port_type_list> capabilities		0	EXEC
show interface <port_type_list> status	Display status for the interface.	0	EXEC
mtu <'VTSS_MAX_FRAME_LENGTH_STANDARD'- 'VTSS_MAX_FRAME_LENGTH_MAX'>	Use mtu to specify maximum frame size (1518-9600 bytes).	15	INTERFACE_PORT_LIST
no mtu	Use no mtu to set maximum frame size to default.	15	INTERFACE_PORT_LIST
shutdown	Use shutdown to shutdown the interface.	15	INTERFACE_PORT_LIST
speed {2500 1000 100 10 auto [[10] [100] [1000]] }	Configures interface speed. If you use 10, 100, or 1000 keywords with the auto keyword the port will only advertise the specified speeds.	15	INTERFACE_PORT_LIST
no speed	Use "no speed" to configure interface to default speed.	15	INTERFACE_PORT_LIST
duplex { half full auto [half full] }	Use duplex to configure interface duplex mode.	15	INTERFACE_PORT_LIST
no duplex	Use "no duplex" to set duplex to default.	15	INTERFACE_PORT_LIST
media-type { rj45 sfp dual }	Use media-type to configure the interface media type.	15	INTERFACE_PORT_LIST
no media-type	Use to configure the interface media-type type to default.	15	INTERFACE_PORT_LIST
flowcontrol { on off }	Use flowcontrol to configure flow control for the interface.	15	INTERFACE_PORT_LIST
no flowcontrol	Use no flowcontrol to set flow control to default.	15	INTERFACE_PORT_LIST
excessive-restart	Use excessive-restart to configure backoff algorithm in half duplex mode.	15	INTERFACE_PORT_LIST
show web privilege group [<cword>] level		0	EXEC
web privilege group <cword> level { [cro <0-15>] [crw <0-15>] [sro <0-15>] [srw <0-15>] }*1		15	GLOBAL_CONFIG

no web privilege group [<word>] level		15	GLOBAL_CONFIG
show port-security port [interface <port_type_list>]	Show MAC Addresses learned by Port Security	0	EXEC
show port-security switch [interface <port_type_list>]	Show Port Security status.	0	EXEC
no port-security shutdown [interface <port_type_list>]	Reopen one or more ports whose limit is exceeded and shut down.	15	EXEC
port-security	Enable/disable port security globally.	15	GLOBAL_CONFIG
port-security aging	Enable/disable port security aging.	15	GLOBAL_CONFIG
port-security aging time <10-10000000>	Time in seconds between check for activity on learned MAC addresses.	15	GLOBAL_CONFIG
no port-security aging time		15	GLOBAL_CONFIG
port-security	Enable/disable port security per interface.	15	INTERFACE_PORT_LIST
port-security maximum [<1-1024>]	Maximum number of MAC addresses that can be learned on this set of interfaces.	15	INTERFACE_PORT_LIST
no port-security maximum		15	INTERFACE_PORT_LIST
port-security violation { protect trap trap-shutdown shutdown }	The action involved with exceeding the limit.	15	INTERFACE_PORT_LIST
no port-security violation	The action involved with exceeding the limit.	15	INTERFACE_PORT_LIST
pvlan <range_list>	Use the pvlan add or remove command to add or remove a port from a PVLAN.	13	INTERFACE_PORT_LIST
pvlan isolation	Use the pvlan isolation command to add the port into an isolation group.	13	INTERFACE_PORT_LIST
show pvlan [<range_list>]	Use the show pvlan command to view the PVLAN configuration.	13	EXEC
show pvlan isolation [interface <port_type_list>]	Use the show pvlan isolation command to view the PVLAN isolation configuration.	13	EXEC
show qos [{ interface [<port_type_list>] } wred { maps [dscp-cos] [dscp-ingress-translation] [dscp-classify] [cos-dscp] [dscp-egress-translation] } storm { qce [<1-256>] }]		15	EXEC
qos map dscp-cos { <0~63> <dscp> } cos <0-7> dpl <dpl>		15	GLOBAL_CONFIG
no qos map dscp-cos { <0~63> <dscp> }		15	GLOBAL_CONFIG
qos map dscp-ingress-translation { <0~63>		15	GLOBAL_CONFIG

<dscp> } to { <0-63> <dscp> }			
no qos map dscp-ingress-translation { <0~63> <dscp> }		15	GLOBAL_CONFIG
qos map dscp-classify { <0~63> <dscp> }		15	GLOBAL_CONFIG
qos map cos-dscp <0~7> dpl <0~1> dscp { <0-63> <dscp> }		15	GLOBAL_CONFIG
no qos map cos-dscp <0~7> dpl <0~1>		15	GLOBAL_CONFIG
qos map dscp-egress-translation { <0~63> <dscp> } <0~1> to { <0-63> <dscp> }		15	GLOBAL_CONFIG
no qos map dscp-egress-translation { <0~63> <dscp> } <0~1>		15	GLOBAL_CONFIG
qos wred queue <0~5> min-th <0-100> mdp-1 <0-100> mdp-2 <0-100> mdp-3 <0-100>		15	GLOBAL_CONFIG
qos wred queue <0~5> min-fl <0-100> max <1-100> [fill-level]		15	GLOBAL_CONFIG
no qos wred queue <0~5>		15	GLOBAL_CONFIG
qos storm { unicast multicast broadcast } { { <1,2,4,8,16,32,64,128,256,512> [kfps] } { 1024 kfps } }		15	GLOBAL_CONFIG
no qos storm { unicast multicast broadcast }		15	GLOBAL_CONFIG
qos qce { [update] } <uint> [{ next <uint> } last] [interface <port_type_list>] [smac { <mac_addr> <oui> any }] [dmac { <mac_addr> unicast multicast broadcast any }] [tag { [type { untagged tagged c-tagged s-tagged any }] [vid { <vcap_vr> any }] [pcpc { <pcp> any }] [dei { <0-1> any }] } *1] [inner-tag { [type { untagged tagged c-tagged s-tagged any }] [vid { <vcap_vr> any }] [pcpc { <pcp> any }] [dei { <0-1> any }] } *1] [frame-type { any { etype [{ <0x600-0x7ff,0x801-0x86dc,0x86de-0xffff> any }] } { llc [dsap { <0-0xff> any }] [ssap { <0-0xff> any }] [control { <0-0xff> any }] } { snap [{ <0-0xffff> any }] } { ipv4 [proto { <0-255> tcp udp any }] [sip		15	GLOBAL_CONFIG

{ <ipv4_subnet> any }] [dip { <ipv4_subnet> any }] [dscp { <vcap_vr> <dscp> any }] [fragment { yes no any }] [sport { <vcap_vr> any }] [dport { <vcap_vr> any }] { ipv6 [proto { <0-255> tcp udp any }] [sip { <ipv4_subnet> any }] [dip { <ipv4_subnet> any }] [dscp { <vcap_vr> <dscp> any }] [sport { <vcap_vr> any }] [dport { <vcap_vr> any }] }] [action { [cos { <0-7> default }] [dpl { <0-1> default }] [pcp-dei { <0-7> <0-1> default }] [dscp { <0-63> <dscp> default }] [policy { <uint> default }] } *1]			
no qos qce <'QCE_ID_START'~'QCE_ID_END'>		15	GLOBAL_CONFIG
qos qce refresh		15	GLOBAL_CONFIG
qos cos <0-7>		15	GLOBAL_CONFIG
no qos cos		15	INTERFACE_PORT_LIST
qos dpl <dpl>		15	INTERFACE_PORT_LIST
no qos dpl		15	INTERFACE_PORT_LIST
qos pcp <0-7>		15	INTERFACE_PORT_LIST
no qos pcp		15	INTERFACE_PORT_LIST
qos dei <0-1>		15	INTERFACE_PORT_LIST
no qos dei		15	INTERFACE_PORT_LIST
qos trust tag		15	INTERFACE_PORT_LIST
qos trust dscp		15	INTERFACE_PORT_LIST
qos map tag-cos pcp <0~7> dei <0~1> cos <0-7> dpl <dpl>		15	INTERFACE_PORT_LIST
no qos map tag-cos pcp <0~7> dei <0~1>		15	INTERFACE_PORT_LIST
qos policer <uint> [fps] [flowcontrol]		15	INTERFACE_PORT_LIST
no qos policer		15	INTERFACE_PORT_LIST
qos queue-policer queue <0~7> <uint>		15	INTERFACE_PORT_LIST
qos queue-policer queue <0~7> <uint>		15	INTERFACE_PORT_LIST
no qos queue-policer queue <0~7>		15	INTERFACE_PORT_LIST
qos wrr <1-100> <1-100> <1-100> <1-100> <1-100> <1-100>		15	INTERFACE_PORT_LIST
no qos wrr		15	INTERFACE_PORT_LIST

qos shaper <uint>		15	INTERFACE_PORT_LIST
no qos shaper		15	INTERFACE_PORT_LIST
qos queue-shaper queue <0~7> <uint> [excess]		15	INTERFACE_PORT_LIST
no qos queue-shaper queue <0~7>		15	INTERFACE_PORT_LIST
qos tag-remark { pcpc <0~7> dei <0~1> mapped }		15	INTERFACE_PORT_LIST
no qos tag-remark		15	INTERFACE_PORT_LIST
qos map cos-tag cos <0~7> dpl <0~1> pcpc <0~7> dei <0~1>		15	INTERFACE_PORT_LIST
no qos map cos-tag cos <0~7> dpl <0~1>		15	INTERFACE_PORT_LIST
qos dscp-translate		15	INTERFACE_PORT_LIST
qos dscp-classify { zero selected any }		15	INTERFACE_PORT_LIST
no qos dscp-classify		15	INTERFACE_PORT_LIST
qos dscp-remark { rewrite remap remap-dp }		15	INTERFACE_PORT_LIST
no qos dscp-remark		15	INTERFACE_PORT_LIST
qos storm { unicast broadcast unknown } <100- 13200000> [fps]		15	INTERFACE_PORT_LIST
no qos storm { unicast broadcast unknown }		15	INTERFACE_PORT_LIST
qos qce { [addr { source destination }] [key { double-tag normal ip-addr mac-ip-addr }] } *1		15	INTERFACE_PORT_LIST
no qos qce { [addr] [key] } *1		15	INTERFACE_PORT_LIST
show rmon statistics [<1~65535>]		15	EXEC
show rmon history [<1~65535>]		15	EXEC
show rmon alarm [<1~65535>]		15	EXEC
show rmon event [<1~65535>]		15	EXEC
rmon alarm <1-65535> <word255> <1- 2147483647> {absolute delta} rising-threshold <-2147483648-2147483647> [<0-65535>] falling- threshold <-2147483648-2147483647> [<0- 65535>] {[rising falling both]}		15	GLOBAL_CONFIG
no rmon alarm <1-65535>		15	GLOBAL_CONFIG
rmon event <1-65535> [log] [trap <word127>] {[description <line127>]}		15	GLOBAL_CONFIG
no rmon event <1-65535>		15	GLOBAL_CONFIG
rmon collection stats <1-65535>		15	INTERFACE_PORT_LIST
no rmon collection stats <1-65535>		15	INTERFACE_PORT_LIST

rmon collection history <1-65535> [buckets <1-65535>] [interval <1-3600>]		15	INTERFACE_PORT_LIST
no rmon collection history <1-65535>		15	INTERFACE_PORT_LIST
show sflow statistics { receiver [<range_list>] samplers [interface [<range_list>] <port_type_list>]}	Use sflow statistics to show statistics for either receiver or sample interface.	0	EXEC
show sflow	Use show sflow to display the current sFlow configuration.	0	EXEC
clear sflow statistics { receiver [<range_list>] samplers [interface [<range_list>] <port_type_list>] }	Clearing statistics.	15	EXEC
sflow agent-ip {ipv4 <ipv4_addr> ipv6 <ipv6_addr>}	The agent IP address used as agent-address in UDP datagrams. Defaults to IPv4 loopback address.	15	GLOBAL_CONFIG
no sflow agent-ip	Sets the agent IP address used as agent- address in UDP datagrams to 127.0.0.1.	15	GLOBAL_CONFIG
sflow timeout [receiver <range_list>] <0- 2147483647>	Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.	15	GLOBAL_CONFIG
no sflow timeout [receiver <range_list>]	Receiver timeout measured in seconds. The switch decrements the timeout once per second, and as long as it is non-zero, the receiver receives samples. Once the timeout reaches 0, the receiver and all its configuration is reset to defaults.	15	GLOBAL_CONFIG
sflow collector-address [receiver <range_list>] [<word>]	Collector address	15	GLOBAL_CONFIG
no sflow collector-address [receiver <range_list>]		15	GLOBAL_CONFIG
sflow collector-port [receiver <range_list>] <1- 65535>	Collector UDP port. Valid range is 0-65536.	15	GLOBAL_CONFIG
no sflow collector-port [receiver <range_list>]	Collector UDP port. Valid range is 0-65536.	15	GLOBAL_CONFIG
sflow max-datagram-size [receiver <range_list>]	Maximum datagram size.	15	GLOBAL_CONFIG

<200-1468>			
no sflow max-datagram-size [receiver <range_list>]	Maximum datagram size.	15	GLOBAL_CONFIG
sflow sampling-rate [sampler <range_list>] [<1-4294967295>]	Specifies the statistical sampling rate. The sample rate is specified as N to sample 1/Nth of the packets in the monitored flows. There are no restrictions on the value, but the switch will adjust it to the closest possible sampling rate.	15	INTERFACE_PORT_LIST
sflow max-sampling-size [sampler <range_list>] [<14-200>]	Specifies the maximum number of bytes to transmit per flow sample.	15	INTERFACE_PORT_LIST
no sflow max-sampling-size [sampler <range_list>]	Specifies the maximum number of bytes to transmit per flow sample.	15	INTERFACE_PORT_LIST
sflow counter-poll-interval [sampler <range_list>] [<1-3600>]	The interval - in seconds - between counter poller samples.	15	INTERFACE_PORT_LIST
no sflow counter-poll-interval [<range_list>]	The interval - in seconds - between counter poller samples.	15	INTERFACE_PORT_LIST
sflow [<range_list>]	Enables/disables flow sampling on this port.	15	INTERFACE_PORT_LIST
show smtp	Email information	0	EXEC
smtp delete { server username sender returnpath mailaddress <1-6> }	Delete email server	15	GLOBAL_CONFIG
smtp mailaddress <1-6> <word47>	Set email server	15	GLOBAL_CONFIG
smtp returnpath <word47>		15	GLOBAL_CONFIG
smtp returnpath <word47>		15	GLOBAL_CONFIG
smtp sender <word47>		15	GLOBAL_CONFIG
smtp username <word31> <word31>		15	GLOBAL_CONFIG
smtp server <word47>		15	GLOBAL_CONFIG
smtp level <0-7>		15	GLOBAL_CONFIG
show snmp		15	EXEC
show snmp community v3 [<word127>]		15	EXEC
show snmp user [<word32> <word10-32>]			
show snmp security-to-group [{ v1 v2c v3 } <word32>]			
show snmp access [<word32> { v1 v2c v3 any } { auth noauth priv }]			

show snmp view [<word32> <word255>]			
snmp-server	Enable SNMP server.	13	GLOBAL_CONFIG
snmp-server engine-id local <word10-32>	To specify SNMP server's engine ID.	13	GLOBAL_CONFIG
no snmp-server engine-id local	To set SNMP server's engine ID to default value.	15	GLOBAL_CONFIG
snmp-server version { v1 v2c v3 }	Set the SNMP server version to SNMPv1, SNMPv2c or SNMPv3.	15	GLOBAL_CONFIG
no snmp-server version	Set SNMP server's version to default setting.	15	GLOBAL_CONFIG
snmp-server community v2c <word127> [ro rw]		15	GLOBAL_CONFIG
snmp-server community v3 <word127> [<ipv4_addr> <ipv4_netmask>]		15	GLOBAL_CONFIG
no snmp-server community v2c		15	GLOBAL_CONFIG
no snmp-server community v3 <word127>		15	GLOBAL_CONFIG
snmp-server user <word32> engine-id <word10-32> [{md5 <word8-32> sha <word8-40> } [priv { des aes } <word8-32>]]		15	GLOBAL_CONFIG
no snmp-server user <word32> engine-id <word10-32>		15	GLOBAL_CONFIG
snmp-server security-to-group model { v1 v2c v3 } name <word32> group <word32>		15	GLOBAL_CONFIG
no snmp-server security-to-group model { v1 v2c v3 } name <word32>		15	GLOBAL_CONFIG
snmp-server access <word32> model { v1 v2c v3 any } level { auth noauth priv } [read <word255>] [write <word255>]		15	GLOBAL_CONFIG
no snmp-server access <word32> model { v1 v2c v3 any } level { auth noauth priv }		15	GLOBAL_CONFIG
snmp-server view <word32> <word255> { include exclude }		15	GLOBAL_CONFIG
no snmp-server view <word32> <word255>		15	GLOBAL_CONFIG
snmp-server contact <line255>	To specify the system contact string.	15	GLOBAL_CONFIG
no snmp-server contact	To clear the system contact string.	15	GLOBAL_CONFIG
snmp-server location <line255>	To specify the system location string.	15	GLOBAL_CONFIG
no snmp-server location	To specify the system location string.	15	GLOBAL_CONFIG
show snmp mib context	Use the show snmp mib context user EXEC	15	EXEC

	command to display \		
	the supported MIBs in		
	the switch.		
show snmp mib ifmib ifIndex	Use the show snmp mib ifmib ifIndex user EXEC command to \	15	EXEC
	display the SNMP		
	ifIndex(defined in IF-MIB) mapping \		
	information in the switch.		
show snmp mib redefine	Use the show snmp mib redefine user EXEC command to display \	15	EXEC
	the redefined MIBs in the		
	switch, that are different \		
	definitions from the		
	standard MIBs.		
snmp-server trap		15	GLOBAL_CONFIG
no snmp-server host <word32>		15	GLOBAL_CONFIG
shutdown		15	SNMPS_HOST
host { <ipv4_ucast> <hostname> } [<1-65535>]		15	SNMPS_HOST
[traps informs]			
host <ipv6_ucast> [<1-65535>] [traps informs]		15	SNMPS_HOST
no host		15	SNMPS_HOST
version { v1 [<word127>] v2 [<word127>] v3		15	SNMPS_HOST
[probe engineID <word10-32>] [<word32>] }			
no version		15	SNMPS_HOST
informs retries <0-255> timeout <0-2147>		15	SNMPS_HOST
no informs		15	SNMPS_HOST
traps [aaa authentication] [system [coldstart]		15	SNMPS_HOST
[warmstart]] [switch [stp] [rmon]]			
no traps		15	SNMPS_HOST
snmp-server host <word32> traps [linkup]		15	INTERFACE_PORT_LIST
[linkdown] [lldp]			
no snmp-server host <word32> traps		15	INTERFACE_PORT_LIST
show snmp host [<word32>] [system] [switch]		15	EXEC
[interface] [aaa]			
switch stack re-elect	Config commands for the switches in the	13	EXEC

	stack		
switch stack priority {local <1-16>} <1-4>	Configure master election priority	13	GLOBAL_CONFIG
switch stack swap <1-16> <1-16>	Swap switch ID	13	GLOBAL_CONFIG
no switch stack <1-16>		13	GLOBAL_CONFIG
switch stack <1-16> mac <mac_ucast>	MAC address of the switch	13	GLOBAL_CONFIG
switch stack { enable disable }	Enable/disable stacking	13	GLOBAL_CONFIG
switch stack interface <port_type_list>	Configure stacking interface	13	GLOBAL_CONFIG
show switch stack [details]	Show switch Detail information	0	EXEC
show switch stack debug	Show switch Debug information	debug	EXEC
show ip ssh	Use the show ip ssh privileged EXEC \	15	EXEC
	command to display the SSH status.		
ip ssh	Use the ip ssh global configuration command to \	15	GLOBAL_CONFIG
	enable the SSH. Use the		
	no form of this \		
	command to disable the SSH.		
show network-clock	Show selector state.	0	EXEC
clear network-clock clk-source <range_list>	Clear active WTR timer.	15	EXEC
network-clock clk-source <range_list> nominate { clk-in {interface <port_type_id>} }	Nominate a clk input to become a selectable clock source.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> nominate		15	GLOBAL_CONFIG
network-clock input-source { 1544khz 2048khz 10mhz }	Sets the station clock input frequency	15	GLOBAL_CONFIG
no network-clock input-source		15	GLOBAL_CONFIG
network-clock output-source { 1544khz 2048khz 10mhz }	Sets the station clock output frequency	15	GLOBAL_CONFIG
no network-clock output-source		15	GLOBAL_CONFIG
network-clock clk-source <range_list> aneg-mode { master slave forced }	Sets the preferred negotiation.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> aneg-mode		15	GLOBAL_CONFIG
network-clock clk-source <range_list> hold-	The hold off timer value in 100 ms.Valid	15	GLOBAL_CONFIG

timeout <3-18>	values are range 3-18.		
no network-clock clk-source <range_list> hold-timeout		15	GLOBAL_CONFIG
network-clock selector { { manual clk-source <uint> } selected nonrevertive revertive holdover freerun }	Selection mode of nominated clock sources	15	GLOBAL_CONFIG
no network-clock selector		15	GLOBAL_CONFIG
network-clock clk-source <range_list> priority <0-1>	Priority of nominated clock sources.	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> priority		15	GLOBAL_CONFIG
network-clock wait-to-restore <0-12>	WTR time (0-12 min) '0' is disable	15	GLOBAL_CONFIG
no network-clock wait-to-restore		15	GLOBAL_CONFIG
network-clock ssm-holdover { prc ssua ssub eec2 eec1 dnu inv }	Hold Over SSM overwrite	15	GLOBAL_CONFIG
no network-clock ssm-holdover		15	GLOBAL_CONFIG
network-clock ssm-freerun { prc ssua ssub eec2 eec1 dnu inv }	Free Running SSM overwrite	15	GLOBAL_CONFIG
no network-clock ssm-freerun		15	GLOBAL_CONFIG
network-clock clk-source <range_list> ssm-overwrite { prc ssua ssub eec2 eec1 dnu }	Clock source SSM overwrite	15	GLOBAL_CONFIG
no network-clock clk-source <range_list> ssm-overwrite		15	GLOBAL_CONFIG
network-clock option { eec1 eec2 }	EEC options	15	GLOBAL_CONFIG
no network-clock option		15	GLOBAL_CONFIG
network-clock synchronization ssm	SSM enable/disable.	15	INTERFACE_PORT_LIST
show logging [info] [warning] [error] [switch <switch_list>]	Use the show logging privileged EXEC command without keywords to display the logging configuration, or particularly the logging message summary for the logging level.	15	EXEC
show logging <1-4294967295> [switch <switch_list>]	Use the show logging privileged EXEC command with logging ID to display the detail logging message. OC_CMD_DEFAULT =	15	EXEC
clear logging [info] [warning] [error] [switch <switch_list>]	Use the clear logging privileged EXEC command to clear the logging message.	15	EXEC

logging on	Use the logging on global configuration command to enable the logging server. Use the no form of this command to disable the logging server.	15	GLOBAL_CONFIG
logging host { <ipv4_ucast> <hostname> }	Use the logging host global configuration command to configure the host address of logging server.	15	GLOBAL_CONFIG
no logging host	Use the no logging host global configuration command to clear the host address of logging server.	15	GLOBAL_CONFIG
logging level { info warning error }	Use the logging level global configuration command to configure what level of message will send to logging server.	15	GLOBAL_CONFIG
show clock	Show running system information	0	EXEC
show version	System hardware and software status	0	EXEC
password unencrypted <line31>	Use the password encrypted <password> global configuration command to configure administrator password with unencrypted password for the local switch access.	15	GLOBAL_CONFIG
password encrypted <word4-44>	Use the password encrypted <password> global configuration command to configure administrator password with encrypted password for the local switch access.	15	GLOBAL_CONFIG
password none	Use the password none global configuration command to remove the administrator password.	15	GLOBAL_CONFIG
show system	Show system information	0	EXEC
system contact <line255>	To specify the system contact string.	15	GLOBAL_CONFIG
no system contact	To clear the system contact string.	15	GLOBAL_CONFIG
system location <line255>	To specify the system location string.	15	GLOBAL_CONFIG
no system location	To specify the system location string.	15	GLOBAL_CONFIG
system name <line255>	To specify the system mode name string.	15	GLOBAL_CONFIG
no system name	To specify the system model name string.	15	GLOBAL_CONFIG
show thermal-protect [interface <port_type_list>]	Shows thermal protection status (chip temperature and port status).	15	EXEC

thermal-protect prio <0~3> temperature <0-255>	Thermal protection configurations.	15	GLOBAL_CONFIG
no thermal-protect prio <0~3>	Sets temperature at which to turn ports with the corresponding priority off.	15	GLOBAL_CONFIG
thermal-protect port-prio <0-3>	Sets temperature at which to turn ports with the corresponding priority off.	15	INTERFACE_PORT_LIST
no thermal-protect port-prio	Sets temperature at which to turn ports with the corresponding priority off.	15	INTERFACE_PORT_LIST
show upnp		15	EXEC
upnp		15	GLOBAL_CONFIG
upnp ttl <1-255>		15	GLOBAL_CONFIG
no upnp ttl		15	GLOBAL_CONFIG
upnp advertising-duration <100-86400>		15	GLOBAL_CONFIG
no upnp advertising-duration		15	GLOBAL_CONFIG
username <word31> privilege <0-15> password unencrypted <line31>	Use the username <username> privilege <level> password encrypted <password> global configuration command to add a user with unencrypted password for the local switch access.	15	GLOBAL_CONFIG
username <word31> privilege <0-15> password encrypted <word4-44>	Use the username <username> privilege <level> password encrypted <password> global configuration command to add a user with encrypted password for the local switch access.	15	GLOBAL_CONFIG
username <word31> privilege <0-15> password none	Use the username <username> privilege <level> password none global configuration command to remove the password for specific username.	15	GLOBAL_CONFIG
no username <word31>	Use the no username <username> global configuration command to delete a local user.	15	GLOBAL_CONFIG
vlan protocol {{eth2 {<0x600-0xffff> arp ip ipx at}} {snap {<0x0-0xffff> rfc-1042 snap-8021h} <0x0-0xffff>} {llc <0x0-0xff> <0x0-0xff>} } group <word16>		13	GLOBAL_CONFIG
switchport vlan mac <mac_ucast> vlan <vlan_id>	Use the switchport vlan mac command to associate a MAC address to VLAN ID.	13	INTERFACE_PORT_LIST

switchport vlan protocol group <word16> vlan <vlan_id>	Use the no form of this command to remove the group to vlan mapping.	13	INTERFACE_PORT_LIST
show vlan protocol [eth2 {<0x600-0xffff> arp ip ipx at}] [snap {<0x0-0xffff> rfc-1042 snap-8021h} <0x0-0xffff>] [llc <0x0-0xff> <0x0-0xff>]	Use the switchport vlan protocol group command to add group to vlan mapping.	13	EXEC
show vlan mac [address <mac_ucast>]		13	EXEC
show vlan ip-subnet [id <1-128>]		13	EXEC
switchport vlan ip-subnet id <1-128> <ipv4_subnet> vlan <vlan_id>		13	INTERFACE_PORT_LIST
no switchport vlan ip-subnet id <1~128>		13	INTERFACE_PORT_LIST
switchport mode {access trunk hybrid}	Use the switchport mode command to define the type of the port.	13	INTERFACE_PORT_LIST
no switchport mode		13	INTERFACE_PORT_LIST
switchport access vlan <vlan_id>	Use the switchport access vlan command to configure a port to a VLAN. Valid VLAN IDs are 1 to 4095.	13	INTERFACE_PORT_LIST
no switchport access vlan		13	INTERFACE_PORT_LIST
switchport trunk native vlan <vlan_id>	Use the switchport native vlan command to configure a port VLAN ID for a trunk port.	13	INTERFACE_PORT_LIST
no switchport trunk native vlan	Set trunk mode characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid native vlan <vlan_id>	Use the switchport native vlan command to configure a port VLAN ID for a hybrid port.	13	INTERFACE_PORT_LIST
no switchport hybrid native vlan	Set hybrid mode characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid port-type { unaware c-port s-port s-custom-port }	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport hybrid port-type	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid ingress-filtering	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid acceptable-frame-type { all tagged untagged }	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport hybrid acceptable-frame-type	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport hybrid egress-tag {none all [except-native]}	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST

no switchport hybrid egress-tag	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
switchport trunk vlan tag native	Set trunk characteristics of the interface	13	INTERFACE_PORT_LIST
switchport trunk allowed vlan {all none [add remove except] <vlan_list>}	Set trunk mode characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport trunk allowed vlan	Set trunk characteristics of the interface,	13	INTERFACE_PORT_LIST
switchport hybrid allowed vlan {all none [add remove except] <vlan_list>}	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
no switchport hybrid allowed vlan	Set hybrid characteristics of the interface	13	INTERFACE_PORT_LIST
vlan ethertype s-custom-port <0x0600-0xffff>		13	GLOBAL_CONFIG
no vlan {{ethertype s-custom-port} <vlan_list>}		15	GLOBAL_CONFIG
show interface <port_type_list> switchport [access trunk hybrid]	Use the show interfaces command to display the administrative and operational status of all interfaces or a specified interface.	0	EXEC
show vlan [id <vlan_list> name <vword32> brief]	Use the show vlan command to view the VLAN configuration.	13	EXEC
show vlan status [interface <port_type_list>] [combined admin nas mvr voice-vlan mstp erps vcl evc gvrp all conflicts]	Use the show VLAN status command to view the VLANs configured for each interface.	13	EXEC
name <vword32>	Use the name <vword32> command to configure VLAN name.	13	CONFIG_VLAN
no name	The no form of this command will restore the VLAN name to its default.	13	CONFIG_VLAN
switchport forbidden vlan {add remove} <vlan_list>	Adds or removes forbidden VLANs from the current list of forbidden VLANs	15	INTERFACE_PORT_LIST
no switchport forbidden vlan	Allows for adding VLANs to an interface	15	INTERFACE_PORT_LIST
show switchport forbidden [{vlan <vlan_id>} {name <word>}]	Lookup VLAN Forbidden port entry.	0	EXEC
voice vlan	Use the voice vlan global configuration command to enable voice vlan. Use the no form of this command to globally disable voice vlan.	15	GLOBAL_CONFIG
voice vlan vid <vlan_id>	Use the voice vlan vid global configuration command to configure voice vlan vid.	15	GLOBAL_CONFIG
no voice vlan vid	Use the no voice vlan vid global configuration command to restore the default voice vlan	15	GLOBAL_CONFIG

	vid.		
voice vlan aging-time <10-10000000>	Use the voice vlan aging-time global configuration command to configure default voice vlan aging-time.	15	GLOBAL_CONFIG
no voice vlan aging-time	Use the no voice vlan aging-time global configuration command to restore the default voice vlan aging-time.	15	GLOBAL_CONFIG
voice vlan class { <0-7> low normal medium high }	Use the voice vlan class global configuration command to configure voice vlan class.	15	GLOBAL_CONFIG
no voice vlan class	Use the no voice vlan class global configuration command to restore the default voice vlan class.	15	GLOBAL_CONFIG
voice vlan oui <oui> [description <line32>]	Use the voice vlan oui global configuration command to set the oui entry for voice vlan.	15	GLOBAL_CONFIG
no voice vlan oui <oui>	Use the no voice vlan oui global configuration command to delete the oui entry.	15	GLOBAL_CONFIG
switchport voice vlan mode { auto force disable }	Use the switchport voice vlan mode interface configuration command to configure to switchport voice vlan mode.	15	INTERFACE_PORT_LIST
no switchport voice vlan mode	Use the no switchport voice vlan mode interface configuration command to restore the default switchport voice vlan mode.	15	INTERFACE_PORT_LIST
switchport voice vlan security	Use the switchport voice vlan security interface configuration command to configure switchport voice vlan security mode. Use the no form of this command to globally disable switchport voice vlan security mode.	15	INTERFACE_PORT_LIST
switchport voice vlan discovery-protocol {oui lldp both}	Use the switchport voice vlan discovery-protocol interface configuration command to configure to switchport voice vlan discovery-protocol.	15	INTERFACE_PORT_LIST
no switchport voice vlan discovery-protocol	Use the no switchport voice vlan discovery-protocol interface configuration command to restore the default switchport voice vlan discovery-protocol.	15	INTERFACE_PORT_LIST

show voice vlan [oui <oui> interface <port_type_list>]	Use the show voice vlan privilege EXEC command without keywords to display the voice vlan configuration, or particularly switchport configuration for the interface, or use the oui keyword to display oui table.	15	EXEC
gvrp		15	GLOBAL_CONFIG
gvrp time { [join-time <1-20>] [leave-time <60-300>] [leave-all-time <1000-5000>] }*1		15	GLOBAL_CONFIG
gvrp max-vlans <1-4095>		15	GLOBAL_CONFIG
gvrp		15	INTERFACE_PORT_LIST
gvrp join-request vlan <vlan_list>		15	INTERFACE_PORT_LIST
gvrp leave-request vlan <vlan_list>		15	INTERFACE_PORT_LIST



Transition Networks

10900 Red Circle Drive

Minnetonka, MN 55343 USA

Tel: 952- 941-7600 or 1-800-526-9267

Fax: 952-941-2322

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