

Trend Micro[™] TippingPoint[™] Threat Protection System (TPS) Command Line Interface Reference

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Document Part No.: TPEM69850/230927

Release Date: April 2024

Protected by U.S. Patent No.: Pending

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Chapter 1

Command Line Interface

In addition to the Security Management System (SMS), you can use the Command-line Interface (CLI) to configure and manage your device.

When you initially install the device and run the Setup Wizard, you create a superuser account that you will use to access the device through the CLI. By default, SSH and HTTPS are enabled on the device for the management port IP address. You can access the CLI directly through the system console or remotely through SSH. Non-secure connections, such as Telnet, are not permitted.



When there has been no CLI activity for 15 minutes, connection to the device times out.

Your access to the CLI is determined by your group membership and roles and capabilities. To configure granular levels of access, you can use the aaa (Authentication and Authorization and Auditing) context to modify users, groups, roles, and their capabilities.

SSH configuration

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To configure cryptographic parameters for an SSH remote syslog server or client that is not a Trend Micro[™] TippingPoint[™] device, such as a Linux server, refer to the applicable online documentation.

For TippingPoint devices, you can enable and disable ciphers using a debug command in conjunction with TippingPoint support. Contact support for information on whether other cryptographic parameters are configurable.

To configure the "Remote System Log" contact to use SSH, use the following command:

```
ips{}edit
ips{running}notifycontacts
ips{running-notifycontacts}contact "Remote System Log"
```

To identify which syslog server to send the logs to, use the following command:

ips{running-notifycontacts-Remote System Log}server SERVER PORT

To identify the user of the remote syslog server, use the following command:

```
ips{running-notifycontacts-Remote System Log}ssh-user-name
    SERVER PORT USER
```

Consult the applicable online documentation for information on generating a key pair. To import the public key for the remote syslog server, use the following command:

```
ips{}edit
ips{running}notifycontacts
ips{running-notifycontacts}contact "Remote System Log"
ips{running-notifycontacts-Remote System Log}ssh-host-key
        SERVER PORT PUBLICKEY
```

To import the private key for the remote syslog server, use the following command:

```
ips{running-notifycontacts-Remote System Log}ssh-user-key
    SERVER PORT
Please enter the user private key (including BEGIN PRIVATE
    KEY and END PRIVATE KEY lines):
```

Administrators cannot specify whether users must use either password or key-based authentication. However, key-based authorization is prioritized over password authentication (on a per-user basis) for users that have the SSH public key set.



After the maximum number of authentication attempts you have configured (the range is 1–10) is reached, a lockout condition results.

To upload a user public key:

```
ips{}edit
ips{running}aaa
ips{running-aaa}user USER
ips{running-aaa-user-USER}ssh-public-key SSH_PUBLIC_KEY
ips{running-aaa-user-USER}commit
```

To delete a user public key:

```
ips{}edit
ips{running}aaa
ips{running-aaa}user USER
ips{running-aaa-user-USER}delete ssh-public-key
ips{running-aaa-user-USER}commit
```

To enable SSH for remote syslog, use the following command:

```
ips{running-notifycontacts-Remote System Log}use-ssh
    SERVER PORT enable
```

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To enable the device to send logs to the remote syslog server, use the following commands:

ips{running-log} log system "Remote System Log" notice
ips{running-log} log audit "Remote System Log" ALL

Learn more on page 1-95 about enabling SSH.

CLI syntax

SYNTAX CONVENTION	Explanation
UPPERCASE	Uppercase represents a user-supplied value.
(x)	Parentheses indicate a required argument.
[x]	Brackets indicate an optional argument.
	A vertical bar indicates a logical OR among required and optional arguments.

The CLI uses the following syntax:

Examples

The question mark displays help information:

ips{}traceroute ?

In the example below, required arguments for the traceroute command must either use an IP address or the hostname. An optional argument can be "from" a source IP address:

ips{}traceroute 198.162.0.1 from 198.162.0.2

Shortcut navigation keys

The CLI has the ability to store typed commands in a circular memory. Typed commands can be recalled with the UP and DOWN arrow keys.



You can use the TAB key to complete partial commands. If the partial command is ambiguous, pressing the TAB key twice gives a list of possible commands.

SHORTCUT	DESCRIPTION	
ENTER	Runs the command.	
ТАВ	Completes a partial command.	
?	Question mark at the root prompt or after a command (separated by space) lists the next valid sub-commands or command arguments. Question mark can also be used after sub-commands for more information.A question mark immediately following a character(s) (no space) will list commands beginning with those characters.Exclamation mark before a command allows you to execute the command from any feature context or sub-level. Example: ips{running-gen}!ping 203.0.113.0Shows the previous command.Shows the next command.Shows the next command.Shows the next command.	
!		
UP ARROW		
DOWN ARROW		
Ctrl + P		
Ctrl + N		
Ctrl + L	Clears the screen, does not clear history.	
Ctrl + A	Returns to the start of the command you are typing. Goes to the end of the command you are typing. Cuts the whole line to a special clipboard. Cuts everything after the cursor to a special clipboard. Pastes from the special clipboard used by Ctrl + U and Ctrl + K.	
Ctrl + E		
Ctrl + U		
Ctrl + K		
Ctrl + Y		

Hierarchical context

Prompts are displayed based in a hierarchical context. The following table shows the root, edit, and log configuration modes.

Ргомрт	DESCRIPTION	
ips{}	Displays the top-level root mode. This context is displayed when you first log in to the CLI.	
ips{}edit	Enters the edit configuration mode.	
ips{running}	Displays the configuration mode by changing the prompt to running. This indicates you will be making changes to the running configuration.	
ips{running}display	Views the current configuration and any changes.	
ips{running}commit	Commits changes to the running configuration.	
ips{}log-configure	Enters the log-configure context to access the log configuration mode.	
ips{log-configure}	Displays the log configuration mode.	
ips{log-configure}help	Displays list of valid commands and syntax usage .	
ips{running}exit	Leaves the current configuration mode.	
ips{running}!	Leaves the configuration mode from any context and returns to the top-level root mode.	

Help

The help command provides a list of commands within the current context and the command line usage. You can issue the help command with or without an argument.

COMMAND	DESCRIPTION		
help or ?	Displays a list of all commands. (The question mark at any context level generates a list of available commands within the context, along with a brief description).		
help commandname	Displays syntax for a command.		
commandname?	Displays the options for a command. For example, ping ?.		

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COMMAND	DESCRIPTION	
string?	Shows the commands or keywords that match the string. For example, s?.	

Command modes

The TPS uses a hierarchical menu structure. Within this structure, commands are grouped by functional area within one of three command modes:

COMMAND MODE	DESCRIPTION/EXAMPLE	
Root	When you first log in to the device, you enter the top of the hierarchy, the root mode. ips{}	
Edit	Enters the edit mode. ips{running}	
Log Configuration	Enters the log configuration mode. ips{log-configure}	

A *context* is an environment in which you can configure a set of parameters for a feature or named object. A context can be the name of an instance of an object set by the administrator, or can be the feature itself. The current context is indicated in the command prompt, as shown in the examples above.

Your user role determines whether you have access to all contexts or only specific contexts. Authorization is controlled by granting users access through the authentication context (aaa).

The help and display commands are useful in becoming familiar with the context options. The question mark (?) lists the next valid entry and help for this entry.

If the device is managed by SMS, you will have read-only access to the system resources. To determine if an SMS controls the device, or to change the control, see the sms command.

Root command mode

When you initially enter your device, either through the console or SSH, you enter at the root command mode. The system displays the ips{} prompt as a default. The commands available at this level manage and monitor system operations for the various subsystems.

From the root command mode you can access the configuration mode and the available operational commands that apply to the unit as a whole.

To view the commands available at the root level, type:

```
ips{}help
```

To change the default ips { command prompt, use the host name command in the interface mgmt context of the edit mode. For example:

```
ips{}edit
ips{running}interface mgmt
ips{running-mgmt}help host
```

This displays valid entries for configuring management port host settings.

To display valid entries for the host command, type:

```
ips{running-mgmt}host ?
```

To change the hostname, type:

ips{running-mgmt}host name <yourhostname>

📍 Note

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A valid hostname consists only of alpha-numeric characters and hyphens, and cannot exceed 63 characters or have a hyphen at the beginning or end.

For a list of root commands and their usage see Root commands on page 1-16.

Edit configuration mode

The configuration mode enables administrators with the appropriate credentials to write configuration changes to the active (running)

configuration. To edit the device configuration, you must either be associated with the Superuser role or the Administrator role.

This mode has different context levels that provide access to a specific set of configuration commands. As you move through the context menus the command prompt displays the current context. Remember that you can issue the help command to display available commands for that context or type display to view the current configuration for that context.

Enter and exit the edit mode

To enter the edit configuration mode, use the edit command.

```
ips{}edit
ips{running}
```

The CLI prompt indicates that you are in the edit mode and you can then make configuration changes. Configuration options, and sub contexts are available for use until you exit this mode.

To exit the current context, use the exit command.

ips{running}exit

To exit the edit configuration mode from the top-level <code>ips{running}</code> prompt, use the <code>exit</code> command.

```
ips{running}exit
```

To exit the edit configuration mode from any context, use the ! command.

ips{running}!

When you exit the edit configuration mode, the following warning is displayed: "WARNING: Modifications will be lost. Are you sure to exit (y/n)? [n]"

y discards any uncommitted changes you made to the configuration file. n keeps you in the edit configuration mode.

View and commit configuration changes

The display command is a helpful utility to view the current running configuration and to review your configuration changes before you save them.

```
ips{running} display
```

You must use the commit command to save your changes to the running configuration.

Container and object statements

The command hierarchy has two types of statements. The container statement, which contain objects, and the object statement, which are actual commands with options.

For example:

• Container statement in edit mode:

```
ips{running}log
```

ips{running-log}? (The question mark will list all the available entries.)

• Object statement:

ips{running}

```
application-visibility enable|disable (Help will display the command options.)
```

Edit mode workflow

A brief overview of what you can do within the edit configuration mode:

- Issue a command that configures a setting in the *candidate configuration* setting. The candidate configuration allows you to make configuration changes without causing changes to the active configuration until you can review your changes and issue the commit command.
- Enter into a container context to access additional configuration settings.

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- Run the display command to see your candidate configuration settings for that particular context. Any modifications you made will also be visible.
- Run the commit command to save any changes from your candidate configuration to the running configuration.
- Run the exit command to leave the current context. If you are in the top-level root **ips{}** context, this command leaves the configuration mode.
- Run the ! command to leave the configuration mode from the current context.

Configuration file versions

When troubleshooting or needing to rollback a configuration, the current configuration setup can be viewed. Reviewing network configuration files should be a necessary step to becoming knowledgeable about your current system setup. When the device is initially configured, make sure the settings are saved to the *persistent* configuration with the <code>ips{}save-config</code> command. It is also advisable to create a snapshot using the following command:

```
ips{}snapshot create orig_conf
```

Snapshots capture the configuration of a device, which can then be delivered to technical support for troubleshooting. Users can also use snapshots to save and re-apply configurations. Snapshots include the currently installed OS version, and cannot be restored on a device that is not running the same version of the OS. If a snapshot restore needs to be completed, use the following command:

```
ips{}snapshot restore orig_conf
```

A warning message is displayed, followed by an automatic reboot when snapshot restore is completed.

The CLI uses the *deferred-commit* model. In this capacity, the architecture maintains a set of configuration files to ensure that a working configuration

is persistently maintained. This configuration set includes the following configuration files.

- *Running* configuration This version is currently executing on the system. Any changes that administrators make from the edit mode (*except for IPS features, action sets, application groups, and notification contacts*) will take effect once they have been committed, by issuing the commit command. If changes are not committed, all modifications are discarded on exit from the running context. If multiple administrators are on the system, the version that was last committed is used as the current running configuration and is visible to other administrators, once they have exited the edit mode. A warning prompt is displayed if the committed changes would overwrite configuration that was made by another administrator since the configuration was edited.
- *Saved (persistent)* configuration This is the running configuration that was last committed prior to executing the save-config command. The device copies the saved configuration to the start configuration when the system reboots.
- *Start* configuration This is a backup copy of the configuration file saved at the time of system startup, and is loaded at the next system bootup. The rollback-config command can be used to rollback to a persistent and running configuration that was the last known good configuration.

🔏 Note

Future versions of the product will support multiple named saved configuration sets.

Utilities

The display and show commands are helpful for troubleshooting and monitoring the operational status of the system. Command line usage can be found in *Root commands on page 1-16*.

Display

Enter display to see your candidate configuration settings for a context. Any modifications you make can be viewed using the display command. The output of the display command depends on where the command is executed. If executed at the configuration level, it displays the entire configuration of the unit. Executing the display command with a configuration name parameter, or from within a context displays the contents of that particular configuration.

Show

The show command is most efficient in providing critical information, such as traffic usage, router platform type, operating system revision, amount of memory, and the number of interfaces. The show command can also be used to evaluate logging, troubleshooting, tracking resources, sessions, and security settings. To view all the available show utilities, enter the help show command at the root command level. All the available commands along with the correct command line usage are displayed.

Global commands

Global commands can be used in any context.

cls

Clears the terminal screen.

cls

commit

Commits your pending configuration changes to the Running configuration.

When you commit configuration changes, or when changes are committed automatically, the changes are committed to the Running configuration, and the changes are visible to all users. However, when the device reboots, the Running configuration is reset to the Startup configuration. Uncommitted changes and committed changes in the Running configuration are lost. Tip



To copy the Running configuration to the Startup configuration without exiting the configuration mode, prepend the **save-config** command with an exclamation mark (!), for example **!save-config**. This command does not commit any pending changes to the Running configuration.

Syntax

commit

To commit your pending changes to the Running configuration, and then copy the Running configuration to the Startup configuration, enter the following commands:

ips{running}commit

ips{running}!save-config

Related commands

COMMAND	DESCRIPTION
save-config on page 1-30	Copy the Running configuration to the Startup configuration.

display

Displays the current configuration, or the candidate configuration before a commit is issued. Display options vary by context, enter the help display command in a context to view the available options.

Syntax

```
display
```

display [xml]

edit

The edit context modifies the configuration that identifies the security policy and interfaces that you can configure for your device.



1 - 15

Edit takes an instance of the running configuration file. This instance is your version. After making modifications to this candidate configuration version, you have the option of saving it to the running configuration, or discarding any changes you made. To discard, simply exit. To save your candidates configuration, enter the commit command before exiting the edit context. To see commands under the edit context, see *Edit configuration mode on page 1-8*.

ips{}

ips{}edit

ips{running}

Valid entries at this position are:

ааа	Configure users, roles, and remote	
	authentication	
actionsets	Enter action sets context	
autodv	Enter autodv context	
certificates	Enter certificates context	
debug	Enter debug context	
dns	Enter DNS context	
exit	Exit edit context, see also save-config	
gen	Timezone, ssh/https access, general settings	
help	Display help information	
high-availability	Enter high-availability context	
inspection-bypass	Inspection bypass context	
interface	Enter interface context	
ips	Enter IPS profile context	
log	Enter log context	
notifycontacts	Enter notify contacts context	
ntp	Enter NTP context	
reputation	Enter Reputation context	
security-policy-reset	Reset IPS security policy to default	
values		
segments	Segments context	
services	Enter services context	

sflow	sFlow	context
snmp	Enter	SNMP context
ssl-inspection	Enter	SSL inspection context
stacking	Enter	Stacking context
traffic-management	Enter	traffic-management profile
	c	context
virtual-segments	Enter	virtual-segments context
vlan-translations	Enter	vlan-translations context

```
ips{running}commit
```

```
ips{running}exit
```

ips{}



Note

With the exception of debug management-interface select (TOS v6.0 and later), use debug commands only when you are instructed to do so by TippingPoint product support. You must have SuperUser permissions to use debug np commands.

help

Displays help information.

Syntax

help [full|COMMAND]

Root commands

The top level root command line mode displays the <code>ips{}</code> prompt. Commands at this level are used for managing and monitoring system operations for the various subsystems. From the root command mode, you can access the configuration mode, and the available commands that apply to the device as a whole. Enter **help full** or **help COMMANDNAME** at the command prompt to display a list of available commands or help on a specific command. ips{}help

The default ips{} command prompt can be changed using the **host name** command in the **interface mgmt** context of the edit mode. For example:

ips{}edit

ips{running}interface mgmt

ips{running-mgmt}help host (displays valid entries for configuring
management port host settings)

ips{running-mgmt}host ? (displays valid entries for host command)

ips{running-mgmt}host name yourhostname

💡 Note

With the exception of debug management-interface select (TOS v6.0 and later), use debug commands only when you are instructed to do so by TippingPoint product support. You must have SuperUser permissions to use debug np commands.

boot

Lists software packages and rollback to a previous version.

Syntax

```
boot (list-image|rollback)
```

chpasswd

Enter this command to change the password for your local user account, or for another local user. To change the password for another user, you must be associated with the SuperUser role.

You can use this command when the device is managed by the SMS, or is unmanaged.

Syntax

chpasswd *user_name*

clear

Clears system stats, logs, locked users, license throughput maximum seen values, adaptive filter configurations (AFCs), or packet traces.

Syntax

clear adaptive-filter [all|FILTERNUMBER] clear connection-table (blocks|trusts) clear log-file (audit|ipsAlert|ipsBlock|quarantine| reputationAlert|reputationBlock|sslInspection|system) clear counter policy clear np engine filter clear np engine packet clear np engine parse clear np engine reputation dns clear np engine reputation ip clear np engine rule clear np reassembly ip clear np reassembly tcp clear np rule-stats clear np softlinx clear np throughput-utilization-max clear np tier-stats clear packet-traces clear rate-limit streams clear users all [locked|ip-locked]

clear users (NAME|A.B.C.D|X:X::X:X) [locked]

date

Used alone to set and display the current date and time, or with arguments to configure the date in a 24-hour format. The date command shows the current time in the time zone configured on the device and the "gmt" argument shows the time in GMT (UTC).

Syntax

```
date [MMDDhhmm[[CC]YY][.ss]])
```

date gmt

delete

Deletes various items.

Syntax delete

Valid entries at this position are:

```
delete auxdv <auxdv name>
delete dv-toolkit
delete traffic-file FILENAME
```

delete auxdv

Delete Aux DV.

Syntax

delete auxdv <auxdv name>

display conf

Displays information on a particular configuration file in either the start configuration or the running configuration.

Syntax

display conf start | running conf-name

Enter the **display conf** command and press the Tab key twice to display a list of available configuration files.

ips{}display conf running
Valid entries at this position are:
 CTX Context name
 interface Enter interface context

Displays SSL configuration.

ips{}display conf running ssl-inspection

display-config

Displays information on the configuration specified (either the start configuration or the running configuration).

Syntax

```
display-config (start|running)
```

edit

The edit context modifies the configuration that identifies the security policy and interfaces that you can configure for your device.

Edit takes an instance of the running configuration file. This instance is your version. After making modifications to this candidate configuration version, you have the option of saving it to the running configuration, or discarding any changes you made. To discard, simply exit. To save your candidates configuration, enter the commit command before exiting the edit context. To see commands under the edit context, see *Edit configuration mode on page 1-8*.

```
ips{}
ips{}edit
ips{running}
Valid entries at this position are:
```

aaa	Configure users, roles, and remote authentication
actionsets	Enter action sets context
autodv	Enter autodv context
certificates	Enter certificates context
debug	Enter debug context
dns	Enter DNS context
exit	Exit edit context, see also save-config
gen	Timezone, ssh/https access, general settings
help	Display help information
high-availability	Enter high-availability context
inspection-bypass	Inspection bypass context
interface	Enter interface context
ips	Enter IPS profile context
log	Enter log context
notifycontacts	Enter notify contacts context
ntp	Enter NTP context
reputation	Enter Reputation context
security-policy-reset	Reset IPS security policy to default
	values
segments	Segments context
services	Enter services context
sflow	sFlow context
snmp	Enter SNMP context
ssl-inspection	Enter SSL inspection context
stacking	Enter Stacking context
traffic-management	Enter traffic-management profile
	context
virtual-segments	Enter virtual-segments context
vlan-translations	Enter vlan-translations context

ips{running}commit

ips{running}exit

ips{}

note 📍

With the exception of debug management-interface select (TOS v6.0 and later), use debug commands only when you are instructed to do so by TippingPoint product support. You must have SuperUser permissions to use debug np commands.

fips-mode-enable

Enables the Federal Information Processing Standard (FIPS) on a TPS device.

Before you run this command, always reset the device to factory default settings.

When you run this command, it prompts you to confirm that you want to enable FIPS mode. After you enable FIPS mode, it cannot be disabled except by resetting the device to factory defaults.



Note

Both RADIUS and TACACS+ authentication use protocols that are not FIPScompliant. Do not enable FIPS mode if you have remote authentication configured.

After you run this command, you must reboot the device to enable FIPS mode. If FIPS mode fails, the reboot aborts and the user is sent to the system recovery prompt. In addition, the system log records a message with a PASS or FAIL status of FIPS mode. For help diagnosing the issue, contact support.

Syntax

fips-mode-enable

Use the show fips-mode command to verify whether FIPS mode was successfully enabled.

halt

Enter the halt command to shut down the TippingPoint operating system and halt the CPU while maintaining power to the device. After you run this command, the device still has power so Layer-2 Fallback (L2FB) enables traffic to pass through the device:

- For the 440T, power can be removed by unplugging the unit or by turning off the power switch on the back of the unit. To restart the 440T, wait at least 60 seconds before you re-apply power.
- For the 2200T, power can be removed by holding down the front panel power button for 5 seconds, and can be restored by pressing the power button.

Syntax

halt

high-availability

Use the **high-availability** context to manage Intrinsic Network High Availability (INHA) and Zero-Power High Availability (ZPHA).

- *INHA* determines how the device manages traffic on each segment in the event of a system failure:
 - *Layer-2 Fallback (L2FB)* Either permits or blocks all traffic on each segment, depending on the INHA L2FB action setting for the segment. Any permitted traffic is not inspected.



Important

If you enable INHA L2FB, this forced L2FB does **not** persist when you reboot the device.

- Normal Permits and inspects traffic across all segments.
- *ZPHA* determines how the device routes traffic in the event of a loss of system power:

• *Bypass* – Bypasses traffic at the port level to maintain high availability of any network segments that have ZPHA support. When ZPHA bypass is enabled, the INHA Layer-2 fallback action setting for each segment is ignored.



If you enable ZPHA bypass, bypass persists when you reboot the device.

• *Normal* – Routes traffic from each network segment to the Threat Suppression Engine (TSE) for inspection.

ZPHA support varies by device:

- On TippingPoint TXE Series and TX Series devices, optional bypass I/O modules provide high availability for copper and fiber segments. You can enable bypass mode on a particular slot or all slots with a bypass I/O module. When you configure a TXE Series or TX Series device, use the **slot** parameter to specify a particular I/O slot or the **all** parameter to specify all slots.
- On a TippingPoint 2200T security device, ZPHA support is built-in for copper segments. An external ZPHA module is required to enable ZPHA on SFP and SFP+ segments. Bypass mode can be enabled on all segments of the device only.
- On a TippingPoint 440T security device, ZPHA support is built-in for copper segments only. Bypass mode can be enabled on all segments of the device only. You do not need to specify the **all** parameter to enable ZPHA bypass on a TPS 440T or 2200T security device
- On a TippingPoint Virtual Threat Protection System (vTPS) security device, ZPHA bypass mode cannot be enabled.

Syntax

Enables INHA L2FB.

high-availability force (fallback|normal)

Enables ZPHA bypass.

```
high-availability zero-power (bypass-ips|normal) (slot|all)
```

keystore

Changes the keystore mode to enable private keys to be secured in the device keystore or the SMS. This command automatically clears the contents of the keystore. If the device is managed by the SMS, first unmanage the device, then use this command to persist private keys on the device.

Only use this command when **absolutely necessary**, such as when the device has lost contact with the SMS, or other similar troubleshooting situations. Under normal conditions, this setting should only be changed by using the SMS.

Change the keystore mode, for example, if the SMS is unreachable and you want the device to persist its own private keys. Use the **sms-unmanage** command to unmanage the device, and then use the **keystore on-device** command to change the keystore mode to the local keystore. After you change the keystore mode, use the **save-config** command to copy the running configuration (which includes the private keys in the Running configuration) to the Start configuration. If the private keys are not in the running configuration, for example, because you rebooted the device after you unmanaged it, use the **private-key** command to import the private keys manually.

| Note

When the keystore mode is **sms-managed**, private keys are not persisted in the device keystore.

Syntax

keystore on-device|sms-managed

Related commands

Сомманд	DESCRIPTION
ips{running-certificates}private-key on page 1-88	Import the private key from your web server into the local keystore on the device.
ips{running-certificates}certificate on page 1-86	Import the certificate from your web server into the local keystore on the device.
ips{running-sslinsp}server on page 1-134	Add an SSL server proxy to the device with the same security settings as your web server, and assign the corresponding certificate and private key.
ips{running-sslinsp}client-proxy on page 1-131	Add an SSL client proxy to the device with the same security settings and signing certificate of the web server that decrypts the client traffic it receives.

list

Displays traffic capture file list.

Syntax

list traffic-file

log-configure

Enters log configuration context.

Syntax

log-configure

logout

Logs you out of the system.

Syntax

logout

master-key

You can set the master key to a device-generated key that is unique to the device or specify your own *master key passphrase*. By default, TOS v5.0.0 and later encrypts the system keystore with a device-generated master key.

(Best Practice) To avoid keystore issues with a TOS rollback, set the master key to a passphrase that you specify. If the keystore in the rollback image is secured with a different master key than the master key that is set on the device, you can set the master key to the correct passphrase.

Before you change the master key, keep in mind the following points:

- By default, the external user disk is not encrypted. You can easily access the contents of the external user disk from a different device.
- If you choose to encrypt the external user disk, the master key encrypts and decrypts the external user disk.
 - If you change the master key while the external user disk is encrypted, all traffic logs, snapshots, ThreatDV URL Reputation Feed, User-defined URL Entries database, and packet capture data are erased from the external user disk.
 - To access the contents of an encrypted external user disk from a different device, for example to restore a snapshot, the same master key must also be set on the device.

Note

For security purposes, these commands require you to re-enter your password. If you incorrectly enter your password too many times, you are temporarily locked out for two minutes. To verify your account lock status, enter the show user locked command.

Enter an option to set the master key:

• passphrase – This option allows you to specify a passphrase for the master key.

The passphrase must meet the following complexity requirements:

- Must be between 9 and 32 characters in length
- · Combination of uppercase and lowercase alpha and numbers
- Must contain at least one special character (!@#\$%)
- device-generated-key This option generates a passphrase for the master key.

Syntax

```
master-key (set [device-generated-key|passphrase]|reset-
keystore)
```

ping

Tests connectivity with ICMP traffic. The mgmt option uses the management interface.

Syntax

```
ping (A.B.C.D|HOSTNAME) [count INT] [maxhop INT] [from A.B.C.D]
[datasize INT]
ping (A.B.C.D|HOSTNAME) [count (1-900000)] [maxhop (1-800)]
[from A.B.C.D] [datasize (64-65468)]
ping6 (X:X::X:X|HOSTNAME) [count INT] [maxhop INT] [from
X:X::X:X] [datasize INT]
ping6 (X:X::X:X|HOSTNAME) [count (1-900000)] [maxhop (1-800)]
[from X:X::X:X] [datasize (64-65468)]
```

ping6

Tests connectivity with ICMPv6 traffic.

```
Syntax
ping6 (X:X::X:X|HOSTNAME) [count (1-900000)] [maxhop (1-800)]
[from X:X::X:X] [datasize (64-65468)]
```

quarantine

Manages the quarantined traffic and IP address. Enables you to see and clear a quarantine list, and add or remove quarantined IP addresses.



Syntax

quarantine add <IP> <Actionset>
quarantine remove <IP>
quarantine empty
quarantine list

Related commands

show quarantine-list on page 1-47

reboot

Reboots the system. On a TPS device, this command puts the device in Intrinsic HA Layer-2 Fallback mode until the TOS completes its boot sequence. On a vTPS device, traffic flow is interrupted until the boot sequence completes because, unlike a TPS device, the network ports on the vTPS device are virtual.

Specify a full system restart with the full option. On a TPS device, this command temporarily removes power from the device which puts the device in ZPHA Bypass mode until the TOS completes its boot sequence. On a vTPS device, traffic flow is interrupted until the boot sequence completes because, unlike the TPS device, the network ports on the vTPS device are virtual.

Syntax

```
reboot [full]
```

reports

Configure data collection for on-box reports.

Syntax

```
reports (reset|enable|disable) [all|cpu|disk|fan|memory|
network|rate-limiter|temperature|traffic-profile|vpn]
```

Valid entries:

reset Delete report data

enable	Start data collection for reports
disable	Stop data collection for reports

Related commands

show reports on page 1-48

resize

Resizes the terminal.

Syntax

resize

save-config

Copies the Running configuration to the Startup configuration. When you reboot the device, the Startup configuration is applied to the device.



Note

To run this command, you must be at the top-level root **ips{}** mode. To run this command without exiting the current context, prepend an exclamation mark (!) to the command. When run from a context, this command does not commit your pending changes to the Running configuration.

Syntax

save-config

Related commands

COMMAND	DESCRIPTION
commit on page 1-13	Commit your pending changes to the Running configuration.

service-access

Enables or disables service access.



Syntax

service-access (enable|disable)

set

Configures an item.

Syntax

```
set cli filtering rule (auto-comment|no-auto-comment|(last-
auto-comment-value INT))
```

```
set terminal (NAME|noterm|tpterm|vt100)
```

setup

Runs the setup wizard.

Syntax

setup

show

View current system configuration, status, and statistics.

COMMAND	DESCRIPTION
show aaa on page 1-35	Show AAA information.
show auxdv on page 1-35	Show the AuxDV package.
show date on page 1-35	Show the current router date and time.
show dns on page 1-35	Show Domain Name Service.
show filter on page 1-35	Show filter information.
show health on page 1-36	Show health information.

COMMAND	DESCRIPTION
show high-availability on page 1-36	Show high-availability status.
show interface on page 1-36	Show network interface.
show key on page 1-36	Show local server SSH key information.
show license on page 1-36	Show the license number and status.
show log-file on page 1-37	Show the log files.
show log-file boot on page 1-37	Show the boot file.
show mfg-info on page 1-44	Show manufacturing information.
show np congestionx on page 1-44	Shows network congestion breakdown.
show np diagx on page 1-44	Shows low level network processor counters.
show np engine on page 1-44	Show net processor statistics.
show np general statistics on page 1-45	Show general network processor information.
show np mcfilt-rule- stats on page 1-45	Show microfilter rules, number of flows, successful matches.
show np protocol-mix on page 1-46	Show network processor protocol-level statistics.
show np reassembly on page 1-46	Show network processor reassembly statistics.

COMMAND	DESCRIPTION
show np regex show on page 1-46	Displays network processor regular expression entries.
show np regex show on page 1-46	Shows network processor regular expression entries.
show np rule-stats on page 1-46	Show network processor rules, number of flows, successful matches.
show np softlinx on page 1-46	Show network processor softlinx statistics.
show np stats show on page 1-47	Shows network processor statistics.
show np throughput- utilization on page 1-47	Show current throughput usage in Kbps, the high water mark (maximum seen) value of the current throughput usage, and the licensed throughput.
show np tier-stats on page 1-47	Show network processor throughput and utilization for each tier.
show ntp on page 1-47	Show the current NTP settings.
show quarantine-list on page 1-47	Show quarantine list information.
show reports on page 1-48	Show status of data collection for reports.
show service on page 1-48	Show network service information.
show sflow on page 1-48	Show sFlow sampling configuration information.
show sms on page 1-48	Show status of SMS control.
show snmp on page 1-48	Show SNMP information.

COMMAND	DESCRIPTION
show stacking on page 1-49	Show stacking information.
show system connections on page 1-50	Show active socket information.
show system processes on page 1-50	Show system processes.
show system queue- stats on page 1-51	Show internal queue stats.
show system statistics on page 1-51	Show system-wide protocol-related statistics.
show system usage on page 1-51	Show system usage.
show system virtual- memory on page 1-51	Show system virtual memory.
show system xms memory on page 1-52	Show xms memory usage.
show terminal on page 1-52	Show terminal settings.
show traffic-file on page 1-52	Show network traffic from file.
show tse on page 1-53	Show threat suppression engine information.
show user-disk on page 1-53	Show user-disk statistics.
show users on page 1-53	Show users information.
show version on page 1-53	Show device version information.

1-35

COMMAND	DESCRIPTION
show virtual segments on page 1-54	Show virtual segment configuration.

show aaa

Syntax

show aaa capabilities USER

```
show aaa login-banner
```

show auxdv

Displays AuxDV package.

Syntax

show auxdv

show date

Shows the GMT time or the local time and time zone for the device.

Syntax

show date [gmt]

show dns

Syntax

show dns

show filter

Displays the filters.

Syntax

show filter [XFILTERNUMBER | UDVFILTERNUMBER]

show health

Shows health information.

Syntax show health

show high-availability

Syntax show high-availability

Related Commands

high-availability force (fallback|normal)

```
high-availability zero-power (slot <number>|all) (bypass-ips|
normal)
```

show inspection-bypass

Syntax show inspection-bypass

show interface

Syntax
show interface [INTERFACE [statistics [update INT]]]

show key

Shows local server SSH key.

Syntax show key

show license

Syntax show license

show log-file

The following log files are available:

- system
- audit
- boot
- ipsAlert
- ipsBlock
- reputationAlert
- reputationBlock
- quarantine
- sslInspection

show log-file boot

Syntax

show log-file boot [tail [COUNT]] [more]

```
show log-file boot [search [<options>]{0,2} PATTERN] [count
COUNT] [more]
```

If using the more option, the colon will display in the output, to indicate more information is available. Press the Enter key for the scroll to continue, or enter a q to exit and return to the ips{} prompt.

show log-file FILE_NAME

Syntax

```
show log-file FILE_NAME [raw|tab|csv|rawcsv] [addUUID] [addIface] [rawIface]
    [ASC|DESC|(tail [COUNT])] [seqnum] [more]
show log-file FILE_NAME [raw|tab|csv|rawcsv] [addUUID] [addIface] [rawIface]
    [ASC|DESC] [search (<options>){0,2} PATTERN] [start-time START] [end-time END]
    [seqnum[ [begin BEGIN] [end END]]] [count COUNT] [more]
show log-file FILE_NAME [raw|tab|csv|rawcsv] [addUUID] [addIface] [rawIface]
    [ASC|DESC] [search COLUMN cmp PATTERN( and|or COLUMN cmp PATTERN){0,32}]
```

```
[start-time START] [end-time END] [seqnum[ [begin BEGIN] [end END]]] [count COUNT] [more]
show log-file FILE_NAME [raw|tab|csv|rawcsv] [addUUID] [addIface] [rawIface]
   follow [search( <options>){0,2} PATTERN] [seqnum] [more]
show log-file FILE_NAME [raw|tab|csv|rawcsv] [addUUID] [addIface] [rawIface]
   follow [search COLUMN cmp PATTERN( and or COLUMN cmp PATTERN) {0,32}] [seqnum] [more]
show log-file FILE_NAME stat
show log-file summary [verbose]
show log-file boot [tail [COUNT]] [more]
show log-file boot [search( <options>){0,2} PATTERN] [count COUNT] [more]
  show
               Show system status
  log-file
              Show log file information
              Local log file name
  FILE NAME
               Show log in its 'raw' form.
  raw
  tab
               Show log without translating tabs to spaces.
               Show log in Comma Separated Value format.
  CSV
  rawcsv
               Show log in Comma Separated Value without translating fields.
  addUUID
              Add actual UUID value to 'translated' value
  addIface
               Add actual interface name to 'translated' name
               Show actual interface names
  rawIface
  ASC
               Force file to be displayed in Ascending order (oldest to newest)
  DESC
               Force file to be displayed in Descending order (newest to oldest)
  tail
               Show most recent messages
  COUNT
              Count of lines to display
              Show sequence number of log messages
  seqnum
  more
               Enable paging of output (more)
              Search log file
  search
  <options>
              Search options
   Possible values for <options> are:
                Case sensitive search
    case
    invert
                Invert search
  PATTERN
              Pattern to search for (maximum length of 128 characters)
  start-time Starting timestamp
  START
               [YYYY-]MM[-DD[ hh[:mm[:ss[.sss]]]]
  end-time
               Ending timestamp
               [YYYY-]MM[-DD[ hh[:mm[:ss[.sss]]]]
  END
  begin
               Beginning seqnum
  BEGIN
               Begin sequence number
  end
               Ending seqnum
  END
               Ending sequence number
               Limit lines returned (default of 500)
  count
  COLUMN
               Column to search
    Possible values for COLUMN are:
    TIMESTAMP [timestamp] field of log entry
    HOST
                [host] field of log entry
    VERSION
                Log Version
              SSL Inspection proxy type
    SSL-PROXY
    SEVERITY
                Severity level
    SSL-ACTION
                SSL action taken
    SSL-DETAILS SSL Details of action taken
    IN-IFACE
                Incoming Interface name
    IN-SSL-VERSIONIncoming SSL version
```

IN-CRYPTO-SUITEIncoming Crypto suite OUT-IFACE Outgoing Interface name OUT-SSL-VERSIONOutgoing SSL version OUT-CRYPTO-SUITEOutgoing Crypto suite POLICY-UUID UUID of Policy POLICY-UUID-TEXTtranslated text of Policy UUID SIGNATURE-UUIDSignature UUID SIGNATURE-UUID-TEXTtranslated text of Signature UUID PROTOCOL Layer 3 protocol SOURCE-IP Source Address SOURCE-PORT Source Port DESTINATION-IPDestination Address DESTINATION-PORTDestination Port HIT-COUNT Number of events VLAN VLAN ID PERIOD Aggregation period MESSAGE_PARAMSContents of message params TRACE_VER Packet Trace version BUCKET-ID Packet Trace ID SEQ-BEGIN Packet Trace: Begin sequence SEQ-END Packet Trace: End sequence Quarantine Action QACTION ACTION-TYPE Action taken ACTION-SET-UUIDUUID of Action set ACTION-SET-UUID-TEXTtranslated text of Action set UUID RATE-LIMIT-RATERate limit in kbps PROFILE-UUID UUID of Profile PROFILE-UUID-TEXTtranslated text of Profile UUID SSL-POLICY-UUIDSSL Inspection Policy UUID SSL-POLICY-UUID-TEXTtranslated text of SSL Inspection Policy UUID CERTIFICATE-NAMESSL Certificate name DOMATN Domain name or URL VIRTUAL-SEGMENT-UUIDUUID of Virtual Segment VIRTUAL-SEGMENT-UUID-TEXTtranslated text of Virtual Segment UUID CLIENT-IP Client IP address SSL-FLAG Entry occured on an SSL decrypted stream ACCESS Access-level of user TYPE Interface used (WEB,CLI, SYS, SMS) ADDRESS IP address user Area in action was performed CAT RESULT Result of action USER Login name of user MESSAGE Audit message SERVICE-SEVERITY[service]-[severity] field of log entry LOG-SERVICE Service portion of SERVICE-SEVERITY LOG-SEVERITY Severity portion of SERVICE-SEVERITY MESSAGE Message portion of log entry TAG [tag:] portion of MESSAGE field LOG-ENTRY Entire log entry cmp How to compare Possible values for cmp are:

=	Equals (case insensitive)
! =	Not equals (case insensitive)
==	Equals (case sensitive)
!==	Not equals (case sensitive)
and or	and/or column searches
follow	Output appended as log file grows
stat	Show begin seqnum, end seqnum, and number of messages for a log file
summary	Show summary of all log files
verbose	Show extra columns in summary
boot	Boot log information
show log-file	audit ?
-	at this position are:
<enter></enter>	Execute command
ASC	Force file to be displayed in Ascending order (oldest to newest)
DESC	Force file to be displayed in Descending order (newest to oldest)
count	Limit lines returned (default of 500)
CSV	Show log in Comma Separated Value format.
end-time	Ending timestamp
follow	Output appended as log file grows
more	Enable paging of output (more)
raw	Show log in its 'raw' form.
rawcsv	Show log in Comma Separated Value without translating fields.
search	Search log file
seqnum start-time	Show sequence number of log messages Starting timestamp
stat	Show begin seqnum, end seqnum, and number of messages for a log file
tab	Show begin sequence, the sequence, and nameer of messages for a tog fitte Show log without translating tabs to spaces.
tail	Show most recent messages
	C C C C C C C C C C C C C C C C C C C
show log-file	ipsAlert ?
Valid entries	at this position are:
<enter></enter>	Execute command
ASC	Force file to be displayed in Ascending order (oldest to newest)
DESC	Force file to be displayed in Descending order (newest to oldest)
addIface	Add actual interface name to 'translated' name
addUUID	Add actual UUID value to 'translated' value
count csv	Limit lines returned (default of 500) Show log in Comma Separated Value format.
end-time	Ending timestamp
follow	Output appended as log file grows
more	Enable paging of output (more)
raw	Show log in its 'raw' form.
rawIface	Show actual interface names
rawcsv	Show log in Comma Separated Value without translating fields.
search	Search log file
seqnum	Show sequence number of log messages
start-time	Starting timestamp
stat	Show begin seqnum, end seqnum, and number of messages for a log file
tab	Show log without translating tabs to spaces.
tail	Show most recent messages

how log-file	ipsBlock ?
alid entries	at this position are:
<enter></enter>	Execute command
ASC	Force file to be displayed in Ascending order (oldest to newest)
DESC	Force file to be displayed in Descending order (newest to oldest)
addIface	Add actual interface name to 'translated' name
addUUID	Add actual UUID value to 'translated' value
count	Limit lines returned (default of 500)
csv	Show log in Comma Separated Value format.
end-time	Ending timestamp
follow	Output appended as log file grows
more	Enable paging of output (more)
raw	Show log in its 'raw' form.
rawIface	Show actual interface names
rawcsv	Show log in Comma Separated Value without translating fields.
search	Search log file
seqnum	Show sequence number of log messages
start-time	Starting timestamp
stat	Show begin seqnum, end seqnum, and number of messages for a log file
tab	Show log without translating tabs to spaces.
tail	Show most recent messages
how log-file	quarantine ?
alid entries	at this position are:
<enter></enter>	Execute command
ASC	Force file to be displayed in Ascending order (oldest to newest)
DESC	Force file to be displayed in Descending order (newest to oldest)
addIface	Add actual interface name to 'translated' name
addUUID	Add actual UUID value to 'translated' value
count	Limit lines returned (default of 500)
CSV	Show log in Comma Separated Value format.
end-time	Ending timestamp
follow	Output appended as log file grows
more	Enable paging of output (more)
raw	Show log in its 'raw' form.
rawIface	Show actual interface names
rawcsv	Show log in Comma Separated Value without translating fields.
search	Search log file
seqnum	Show sequence number of log messages
start-time	Starting timestamp
stat	Show begin seqnum, end seqnum, and number of messages for a log file
tab	Show log without translating tabs to spaces.
tail	Show most recent messages
h 1	menutationAlant 2
-	reputationAlert ?
	at this position are: Execute command
<enter> ASC</enter>	
DESC	Force file to be displayed in Ascending order (oldest to newest)
	Force file to be displayed in Descending order (newest to oldest) Add actual interface name to 'translated' name
addIface	Auu actual miterrate name to transtateu name

addUUID	Add actual UUID value to 'translated' value
count	Limit lines returned (default of 500)
csv	Show log in Comma Separated Value format.
end-time	Ending timestamp
follow	Output appended as log file grows
more	Enable paging of output (more)
raw	Show log in its 'raw' form.
rawIface	Show actual interface names
rawcsv	Show log in Comma Separated Value without translating fields.
search	Search log file
seqnum	Show sequence number of log messages
start-time	Starting timestamp
stat	Show begin seqnum, end seqnum, and number of messages for a log file
tab	Show log without translating tabs to spaces.
tail	Show most recent messages

show log-file reputationBlock ??

V

12	alid entries	at this position are:
	<enter></enter>	Execute command
	ASC	Force file to be displayed in Ascending order (oldest to newest)
	DESC	Force file to be displayed in Descending order (newest to oldest)
	addIface	Add actual interface name to 'translated' name
	addUUID	Add actual UUID value to 'translated' value
	count	Limit lines returned (default of 500)
	csv	Show log in Comma Separated Value format.
	end-time	Ending timestamp
	follow	Output appended as log file grows
	more	Enable paging of output (more)
	raw	Show log in its 'raw' form.
	rawIface	Show actual interface names
	rawcsv	Show log in Comma Separated Value without translating fields.
	search	Search log file
	seqnum	Show sequence number of log messages
	start-time	Starting timestamp
	stat	Show begin seqnum, end seqnum, and number of messages for a log file $% \left({{{\left[{{{\left[{{{\left[{{{c_{{\rm{m}}}}} \right]}} \right.}} \right]}_{\rm{max}}}} \right)$
	tab	Show log without translating tabs to spaces.
	tail	Show most recent messages

show log-file sslInspection ?

Valid entries at this position are:

<enter></enter>	Execute command
ASC	Force file to be displayed in Ascending order (oldest to newest)
DESC	Force file to be displayed in Descending order (newest to oldest)
addIface	Add actual interface name to 'translated' name
addUUID	Add actual UUID value to 'translated' value
count	Limit lines returned (default of 500)
CSV	Show log in Comma Separated Value format.
end-time	Ending timestamp
follow	Output appended as log file grows
more	Enable paging of output (more)
raw	Show log in its 'raw' form.

1-43

```
Show actual interface names
  rawIface
  rawcsv
               Show log in Comma Separated Value without translating fields.
  search
              Search log file
  seqnum
              Show sequence number of log messages
 start-time Starting timestamp
              Show begin seqnum, end seqnum, and number of messages for a log file
 stat
  tab
               Show log without translating tabs to spaces.
               Show most recent messages
  tail
show log-file summary [verbose]
show log-file system ?
Valid entries at this position are:
  <Enter>
              Execute command
 ASC
              Force file to be displayed in Ascending order (oldest to newest)
 DESC
              Force file to be displayed in Descending order (newest to oldest)
 count
              Limit lines returned (default of 500)
              Show log in Comma Separated Value format.
 csv
 end-time
              Ending timestamp
 follow
              Output appended as log file grows
 more
              Enable paging of output (more)
              Show log in its 'raw' form.
  raw
 rawcsv
              Show log in Comma Separated Value without translating fields.
              Search log file
 search
              Show sequence number of log messages
 seqnum
 start-time Starting timestamp
               Show begin seqnum, end seqnum, and number of messages for a log file
  stat
  tab
               Show log without translating tabs to spaces.
              Show most recent messages
  tail
show log-file boot ?
Valid entries at this position are:
 <Enter> Execute command
 count
           Limit lines returned (default of 500)
 more
           Enable paging of output (more)
  search
           Search log file
  tail
           Show most recent messages
```

show log-file FILE_NAME stat

Shows the beginning sequence number, ending sequence number, and number of messages for the given log file.

Syntax show log-file FILE_NAME stat

show log-file summary

Syntax show log-file summary [verbose]

show mfg-info

Shows manufacturing information.

Syntax show mfg-info

show np congestionx

Shows network congestion breakdown.

Syntax

show np congestionx

show np diagx

Shows low level network processor counters.

Syntax

show np diagx	Show low level network processor counters
detail	Show more detail
drops	Show more detail including per-port
	drops

show np engine

Shows network processor information.

Syntax

show np engine(filter|packet|parse|reputation(ip|dns)|rule)
filter - Show filter-level statistics
packet - Show packet-layer statistics

```
parse - Show packet parsing statistics
reputation - Show reputation statistics on either IP or DNS
rule - Show rule statistics
```

show np flow-cpu-stats

Shows CPU usage statistics.

Syntax show np flow-cpu-stats

show np general statistics

Shows general network processor information.

Syntax show np general statistics

show np mcfilt-filter-stats

Shows microfilter to filters, number of flows, successful matches.

Syntax show np mcfilt-filter-stats

show np mcfilt-regex

Shows microfilter to filters, number of flows, successful matches.

Syntax

```
show np mcfilt-filter-stats
```

show np mcfilt-rule-stats

Shows microfilter rules, number of flows, and successful matches.

Syntax

show np mcfilt-rule-stats

show np packet-size

Shows packet size statistics.

Syntax

show np packet-size

show np protocol-mix

Syntax show np protocol-mix

show np reassembly

Syntax show np reassembly (ip|tcp)

show np regex show

Displays network processor regular expression entries.

Syntax

show	np regex show		
	average	Sort by average time	
	count	Maximum number of entries to show (default 10))
	evaluations	Sort by number of evaluations	
	matches	Sort by number of matches	
	maximum	Sort by maximum time (default)	
	time	Sort by total time	

show np rule-stats

Syntax show np rule-stats

show np softlinx

Syntax

show np softlinx

show np stats show

Shows network processor statistics.

Syntax

show np stats show	
fqStats	Show more detail
dpk	Show more detail including per-port
	drops
npTcpReas dpk	TCP reassembly statistics

show np throughput-utilization

Displays current throughput usage in Kbps, the maximum seen value of the current throughput usage, and the licensed throughput.

Syntax

show np throughput-utilization

show np tier-stats

Displays statistics for monitoring activity since the last reboot of the device. Reboot the device to reset these counters.

Syntax show np tier-stats

show ntp

Syntax show ntp

show quarantine-list

Syntax

show quarantine-list

show reports

Shows the status of the data collection for reports.

Syntax

show reports

show service

Shows the state of all the services.

Syntax

show service

show sflow

Syntax

show sflow

show slot

Displays slot configuration, including the module type currently in the slot. Changes to the slot configuration are not reflected in the output of this command until after you reboot the device.

Syntax

show slot

show sms

Syntax

show sms

show snmp

Syntax

show snmp

show ssl-inspection congestion

Shows SSL inspection information, including the average number of SSL connections per second, the number of current SSL connections (and the device limit), and whether SSL sessions that exceed the device limit are not inspected or blocked. By default, SSL sessions that exceed the device limit are not inspected.

Syntax

show ssl-inspection congestion

VALUES	DEFINITION
Connection rate	Average number of SSL-inspected connections per second over the previous 10 minutes.
Current connections	Number of currently active SSL-inspected sessions in relation to the maximum number of active connections supported by the device.
Congested action	 Action taken by the device when the maximum number of active SSL-inspected sessions is reached: Pass: Sessions beyond the maximum count are not decrypted and are treated like all other IPS
	 Block: Sessions beyond the maximum count are blocked.

show stacking

Enter this command to show stacking status information.

Syntax

show stacking

Reference

Parameter	INFORMATION
Stacking enabled	Indicates whether stacking is enabled on the device.

PARAMETER	INFORMATION
Stacking active	Indicates whether stacking is currently functioning.
Stack member state	Indicates the current working state of this device on the stack.
Stack primary	Indicates whether this device manages the state of the stack.
Number of devices configured in stack	Indicates the number of TippingPoint TPS security devices that are connected together through the stacking bus.
Number of devices required in stack	Indicates the minimum number of devices that must be available to the stack for normal operation. If the number of normal devices falls below this threshold, the stack goes into Intrinsic HA L2FB.
Advertised state	Indicates the state that the device advertises to the stack primary.

show system connections

Lists all of the processes on the device that are open for remote connections and which connections are currently in progress.

For the format of the output, refer to netstat documentation.

Syntax

```
show system connections [ipv4|ipv6|sctp|unix]
```

show system processes

Syntax

show system	processes [LEVEL]
brief	Brief process information
detail	Detailed processinformation

extensive Extensive processinformation summary Active process information

show system queue-stats

Show internal queue statistics.

Syntax

show system queue-stats [fast-path]

show system statistics

Syntax

show system statistics [fast-path] [non-zero]

show system usage

Shows the overall system usage. You can run once, or display an updated version every INT seconds. Ctrl-C will exit a re-occurring update.

Syntax

show system usage [update INT]

show system virtual-memory

Shows the system's kernel memory usage in a table with the following column headings:

- name
- active_objs
- num_objs
- objsize
- objperslab
- pagesperslab

- tunables
- limit
- batchcount
- sharedfactor
- slabdata
- active_slabs
- num_slabs
- sharedavail

Syntax

show system virtual-memory

show system xms memory

Shows xms memory statistics.

```
Syntax show system xms memory (all| SERVICE)
```

show terminal

Shows terminal type information.

Syntax show terminal

show traffic-file

```
Syntax
show traffic-file FILENAME [verbose INT] [proto PROTO] [without
PROTO] [pcap FILTER] [pager]
```

Options

traffic-file Show network traffic from file FILENAME Capture file name

verbose	Configure verbosity level
INT	Verbosity level (0: minimum verbosity)
proto	Configure captured packets protocol
PROTO	Protocol name (default: all)
without	Configure excluded packets protocol
PROTO	Protocol name (default: all)
рсар	Configure pcap-syntax filter
FILTER	Pcap filter string (e.g. "src port 22")
pager	Show all messages

show tse

Shows threat suppression engine information.

Syntax

```
show tse (adaptive-filters|connection-table(blocks|trusts)|
rate-limit|ssl-inspection)
```

show tse connection-table

Syntax

show tse connection-table TYPE

show user-disk

Syntax

show user-disk

show users

Syntax show users [locked|ip-locked]

show version

Syntax

show version

show virtual segments

Shows virtual segment configuration.

Syntax

show virtual segments [summary]

show vlan-translation

Shows vlan translation information.

Syntax show vlan-translation

sms

Allows you to configure SMS settings and release SMS.

Syntax

```
sms must-be-ip (A.B.C.D|A.B.C.D/M)
```

sms unmanage

Related commands

show sms on page 1-48

snapshot create

Allows you to manage system snapshots.

Syntax

nonet Does not restore management port configuration if present in snapshot

snapshot list

Syntax snapshot list

snapshot remove

Syntax

snapshot remove

snapshot restore

A *snapshot* enables you to restore a device to a previously known working state. Restore a snapshot to the same device or to a different device. You can also export a snapshot and send it to TippingPoint Technical Support for assistance with troubleshooting or debugging the device. All snapshots are stored on the external user disk (CFast or SSD).

Make sure the device where you want to restore the snapshot meets the following requirements:

- The TOS version on the device is the same as the TOS version that was installed when the snapshot was taken.
- The device is the same model as the device where the snapshot was taken. For example, you can restore a snapshot from a 2200T to a 2200T.

When restoring a snapshot, keep in mind:

- The contents of the system keystore are not included in the snapshot. When you restore a snapshot to a different device, you should plan to also import any private key information from the device where the snapshot was taken.
- Never delete certificates that are used in snapshots that have, or have had, SSL configurations. Although the system will still complete its reboot sequence after restoring a snapshot that has had its SSL configuration (and corresponding device certificate) removed, the

restored SSL configuration will not be functional until you update the private key for each certificate or replace the entire SSL configuration.

- When you want to restore a snapshot to a different device, and URL Reputation Filtering is enabled, a full synchronization of the Reputation database is required after you restore the snapshot. The snapshot does not include the ThreatDV URL Reputation Feed and User-defined URL Entries database. For more information, see the *SMS User Guide*.
- The snapshot includes the license package. The license package provides license information for each of your TippingPoint devices. If the license package that was included in the snapshot is outdated, restore the snapshot and then download and install an updated license package from the TMC.
- If an external ZPHA was configured on the original device, be sure to add an external ZPHA to the target device or update the device configuration to remove ZPHA.

Syntax

snapshot restore NAME

tcpdump

Allows you to capture network traffic to the terminal or a file. You can specify a maximum packet count or a maximum capture file size. If you record the capture to a file you must specify a maximum packet count or maximum capture file size. Maxsize is the maximum size of the capture file in millions of bytes, which is limited by the currently available disk allocation.

```
tcpdump INTERFACE [record FILENAME [maxsizebytes
1-10000000]] [count 1-10000000] [verbose 0-990000]
[proto (icmp|igmp|tcp|udp|esp|ah|pim|snp|vrrp|stp|isis|sctp)]
[without (icmp|igmp|tcp|udp|esp|ah|pim|snp|vrrp|stp|isis|sctp)]
[pcap FILTER] [cponly][pager] [background]
tcpdump stop
```

tech-support-report

Collects diagnostic information into a Tech Support Report (TSR) that TippingPoint Support can use to debug and troubleshoot system issues. It includes diagnostic commands, log files, the core file directory, and optionally a full system snapshot. The Tech Support Report snapshot captures the system's current running configuration.

If you include a snapshot with your Tech Support Report, the snapshot does not contain the following sensitive information:

- · User names and passwords
- · LDAP and remote server passwords
- SNMPv3 passphrase
- HA passphrase
- VPN IPsec keys
- Keystore

Only one report can exist on the device. When you create a new report, the previous report is replaced.

You should execute this command only when requested to do so by TippingPoint Support personnel.

It can take several minutes to execute this command. By default, this command is allowed to run as long as necessary to generate the TSR. Use the max-runtime option, if necessary, to set a maximum threshold for the amount of time, in seconds, that the command is allowed to run before interrupting the report generation.

Syntax

tech-support-report include-traffic-logs|exclude-traffic-logs include-snapshot|exclude-snapshot include-all-corefiles|exclude-all-corefiles [max-runtime INSECONDS]

traceroute

Traceroute shows you the path a packet of information takes from your computer to your designation. It lists all the routers it passes through until it reaches its destination, or fails. Traceroute tells you how long router to router hops take.

```
Syntax
traceroute (A.B.C.D|HOSTNAME) [from A.B.C.D]
(traceroute|traceroute6) X:X::X:X [from X:X::X:X]
```

traceroute6

Trace IPv6 network routes.

```
Syntax
ips{}traceroute6 (A.B.C.D|HOSTNAME) [from A.B.C.D]
```

user-disk

Mounts, unmounts, and formats the external user disk (CFast or SSD).

The device will mount the user disk after you run this command. This also enables the device to automatically mount the user disk as part of the startup process.

You can also enable encryption on the external user disk to secure its contents with the system master key. The external user disk stores all traffic logs, snapshots, and packet capture data. By default, the external user disk is not encrypted.

Before you secure the external user disk, keep in mind the following points:

- The SSD slot is only active if an SSD module is present when the device powers on.
- When you change the encryption status of the external user disk, the device automatically formats the disk and all traffic logs, snapshots, and packet capture data are erased. On large, external CFast disks (32 GB or more), it can take 40 seconds or more to complete disk format and encryption operations.

• The system master key encrypts and decrypts the external user disk. AES encryption with a RIPEMD160 hash is used for the encryption. To access the contents of an encrypted external user disk from a different device, for example to restore a snapshot, the same master key must also be set on the device.

Syntax

```
user-disk (encryption (enable|disable) | format | mount |
unmount)
```

- Unmount Unmount the external user disk.
- *Mount* Mount the external disk and enable the device to automatically mount the disk on boot.
- Format Format the external user disk.
- · Encryption Enable Enable encryption on the external user disk.

Related commands

show user-disk on page 1-53

master-key on page 1-27

Log configure commands

Enter the log-configure command to access the log configure context. Enter a question mark (?) at the <code>ips{log-configure}</code> prompt to display a list of valid command entries. Then enter <code>Help</code> command name to display help for a specific command.

display

Displays log configuration settings. In contrast to the show command, which shows the status of a configuration, the display command shows what you have configured. For example, if you enable high-availability on one device but not the other, the display command will show that you have high-availability configured and the show command will show that high-availability is not in effect.

Syntax

display [log-sessions] [xml|verbose]

email

Allows you to set logging email daemon parameters.

Syntax

```
email set sleepSeconds SLEEPSEC
email set maxRequeue MAXREQUEUE
email delete (sleepSeconds|maxRequeue)
```

log-file-size

Sets log file allocation as a percentage of the total 100 percent allowed for all log files. When audit log data reaches 75% of its allocated space, an alert is generated (not configurable).

```
# LOG FILE ALLOCATION SETTINGS
# INTERNAL DISK
log-file-size system 50%
log-file-size audit 50%
# -----
# Total 100%
```

```
log-file-size FILE_NAME USAGE[%]
log-file-size
(audit|ipsAlert|ipsBlock|quarantine|reputationAlert|
reputationBlock|sslInspection|system) USAGE[%]
system and audit log files are kept on the internal disk
ipsAlert, ipsBlock, quarantine, reputationAlert,
reputationBlock, and sslInspection log files are kept on the
external or ramdisk drive
```

log-storage

Sets local log file allocation of external user disk (CFast or SSD) space. Usage value can range from 50 to 99 percent. By default, 3.5 GB of the disk is a reserve for non-logging storage, which includes the Reputation databases. Although this space can be reduced or increased when rare circumstances require it, reducing the reserved space can interfere with URL filtering.

Syntax

```
log-storage external USAGE[%]
log-storage ramdisk USAGE[%]
log-storage externalReserve RESERVESIZE [MB]
```

log-test

Sends a test message to the logging system(s).

```
log-test (all|audit|quarantine|logID LOGID) [emergency [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [alert [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [critical [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [error [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [warning [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [notice [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [info [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [debug [MESSAGE]]
log-test (all|audit|quarantine|logID LOGID) [msg MESSAGE]
Valid entries:
all
            All log systems
audit
            Audit system
quarantine
           Quarantine system
logID
            LogID system
LOGID
            Log-session ID to test
            Set Severity level for log message (default: INFO)
SEVERITY
```

Possible va	lues for SEVERITY are:
emergency	EMERG level
alert	ALERT level
critical	CRIT level
error	ERR level
warning	WARNING level
notice	NOTICE level
info	INFO level (default)
debug	DEBUG level
msg	Override default message
MESSAGE	Message to send to logging system

rotate

Sets log rotation parameters.

Syntax

```
rotate (set|delete) defaultCheckRecords (100-65535)
rotate (set|delete) defaultFiles (2-20)
rotate (set|delete) maxFileSize (10-500MB)
rotate (set|delete) rotateMsgSeverity SEVERITY
rotate (set|delete) sleepSeconds (1-65535)
rotate (set|delete) audit [Files (2-20)] [Records (100-65535)]
rotate (set|delete) ipsAlert [Files (2-20)] [Records (100-65535)]
rotate (set|delete) ipsBlock [Files (2-20)] [Records (100-65535)]
rotate (set|delete) quarantine [Files (2-20)] [Records (100-65535)]
rotate (set|delete) reputationAlert [Files (2-20)] [Records (100-65535)]
rotate (set|delete) reputationBlock [Files (2-20)] [Records (100-65535)]
rotate (set|delete) system [Files (2-20)] [Records (100-65535)]
rotate (set|delete) visibility [Files (2-20)] [Records (100-65535)]
sleepSeconds
                      Logrotation sleep time between checks
                      Number of seconds logrotation waits between checks
SLEEPSEC
defaultFiles
                      Default number of logrotation files
NUMFILES
                      Number of logrotation files (2 - 20)
defaultCheckRecords
                      Default number of records between log daemon size checks
NUMRECORDS
                      Number of records between log daemon size checks
                      (100 - 65535)
maxFileSize
                      Max size a 'rotated' log file
```

MAXFILESIZE	Max log rotation file size in MB (10 - 500)
MB	Megabytes
FILE_NAME	Local log file name
Files	Number of logrotation files
Records	Number of records between log daemon size checks
delete	Delete the logrotation parameter

Edit running configuration commands

Enter the edit command to access the configuration mode. In edit mode, you can perform numerous configurations, such as policies and authentication. After you have executed the edit command, the CLI prompt will be displayed as ips{running}. Configuration options, and sub contexts are available until you exit. To exit the edit configuration mode, enter exit.

The configuration mode enables administrators with the appropriate credentials to write configuration changes to the active (running) configuration. The logon account used to configure the device must either be associated with the SuperUser role or the Administrator role to edit the configuration context. The configuration mode has different context levels that provide access to a specific set of configuration commands.



Note

With the exception of debug management-interface select (TOS v6.0 and later), use debug commands only when you are instructed to do so by TippingPoint product support. You must have SuperUser permissions to use debug np commands.

This section is divided as follows:

- Edit context commands on page 1-63
- Contexts and related commands on page 1-70

Edit context commands

aaa

aaa

Related Commands

running-aaa Context Commands on page 1-70

actionsets

Enters the action sets context mode. Changes are committed and take effect immediately.

Syntax actionsets

autodv

Enters Auto Digital Vaccine context mode.

Syntax autodv

certificates

Enters certificates context mode.

Syntax certificates

debug management-interface select

Enters debug context mode so users can switch between management ports.

Syntax
debug management-interface select <mgmt1> <mgmt2>



With the exception of debug management-interface select (TOS v6.0 and later), use debug commands only when you are instructed to do so by TippingPoint product support. You must have SuperUser permissions to use debug np commands.

delete

Deletes file or configuration item.

Syntax

delete interface

display

Displays file or configuration item.

Syntax

display

Valid commands are:

Manage context

display CTX display conf CONF-NAME CTX display CTX [xml] display [xml]

dns

Enters DNS context mode. Syntax dns

gen

Enters general context mode.

Syntax

gen

high-availability

Enters high-availability context mode.

Syntax high-availability

interface

Enters interface context mode.

On TXE Series and TX Series devices, ports are presented in the format Slot-SegmentPort. For example, port 4A on slot 3 would be specified as "3-4A".

Syntax

Configure network interface 1A in slot 3.

```
ips{}edit
ips{running}interface 3-1A
ips{running-3-1A}exit
```

Configure the management interface.

```
ips{}edit
ips{running}interface mgmt
ips{running-mgmt}
```

Example settings

Setting entries depend on platform type.

Physical-media settings

Valid physical-media settings are:

10half - Supported port speed and mode

10full - Supported port speed and mode

100half - Supported port speed and mode

100full - Supported port speed and mode

auto-neg - Enable auto-negotiation (default is on)

Line speed

The line speed setting for a port.

You can set a port to 10, 100, or 1000 Mbps.

Duplex setting

The duplex setting for the port. Copper can be set to **full** or **half**. Fiber ports can be set to **full**.

Auto negotiation

The auto negotiation setting determines whether the port negotiates its speed based on the connection it can make.

ips

Enters IPS profile context mode.

note 🕴

When IDS mode is enabled, it adjusts the device configuration so that the device operates in a manner suitable for Intrusion Detection System (IDS) scenarios and filter configurations. When IDS Mode settings are changed, reboot the device for the change to take effect.

Syntax

ips

log

Enters log context mode. Note that the Management Console notification contact for the Audit log cannot be modified.

Syntax

log

notifycontacts

Enters notify contacts context mode.

Syntax notifycontacts

ntp

Enters notify contacts context mode.

Syntax

ntp

reputation

Enters Reputation context mode.

Syntax reputation

security-policy-reset

Resets IPS security policy to the default values.

Syntax security-policy-reset

segments

Enters segments context mode, which enables you to rename segments.

Syntax

segments

services

Enters services context mode.

Syntax

services

sflow

Enter sFlow[®] global configuration context mode.

Syntax

sflow

snmp

Enters SNMP context mode.

Syntax

snmp

ssl-inspection

Enters SSL inspection context mode.

Syntax

ssl-inspection

Related commands

Command	DESCRIPTION
certificates on page 1-64	Store security certificates and private keys on the TPS as device certificates.

COMMAND	DESCRIPTION
virtual-segments on page 1-70	Assign an SSL inspection profile to a virtual segment.

traffic-management

Enters traffic-management profile context.

Syntax

traffic-management

virtual-segments

Enters virtual-segments context.

Syntax

virtual-segments

Contexts and related commands

running-aaa Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-aaa}delete

Delete file or configuration item.

Syntax

```
delete ldap-group (LDAPNAME|all)
delete radius-group (RADIUSNAME|all)
delete role (ROLE|all)
delete tacacs-group (TACACSNAME|all)
```

```
delete user (USER|all)
delete user-group (USERGROUP|all)
```

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ips{running-aaa}display

Display configuration.

Syntax

```
display ldap-group LDAPGROUP [xml]
display ldap-schema LDAPSCHEMA [xml]
display login-settings [xml]
display password-settings [xml]
display radius-group RADIUSGROUP [xml]
display remote-login-group [xml]
display role USER [xml]
display tacacs-group [xml]
display user USER [xml]
display usergroup USERGROUP [xml]
```

ips{running-aaa}disable-inactive-users

Disable users who are inactive for 35 days.

Syntax

disable-inactive-users

ips{running-aaa}ldap-group

Configure LDAP group. Maximum number of groups is two.

Syntax

ldap-group LDAPNAME

ips{running-aaa}ldap-schema

Configure LDAP schema.

ldap-schema SCHEMA SCHEMA (active-directory|novell-edirectory|fedora-ds|rfc2798|rfc2307nis|samba|custom)

ips{running-aaa}login

Configure login settings, including the timeout period for inactivity in the CLI. By default, the timeout period for inactivity in the CLI is 15 minutes.

Syntax

login maximum-attempts LOGINATTEMPTS login failure-action FAILURE-ACTION login lockout-period DURATION login cli-inactive-timeout [MINUTES]

Example of how to set a login failure action

ips{running-aaa}login failure-action lockout

Example of help for login settings

ips{running-aaa}help login

ips{running-aaa}login-banner

Configure login banner settings, including title and banner text.

Syntax

```
login-banner (enable|disable)
login-banner text (1500 character max)
login-banner title (50 character max)
```

ips{running-aaa}password

Configure password settings.

Syntax

```
password quality (none|low|medium|high)
password expiry-time (10d|20d|30d|45d|60d|90d|6m|1y)
password expiry-action (force-change|notify-user|disable-account)
password disallow-reuse (enable|disable)
password min-lifetime (enable|disable)
```

Restrictions for the password security levels are as follows:

- **None** User names cannot contain spaces. The maximum password length is 32 characters.
- **Low** The same user name and password requirements as the None setting, plus the following additional requirements:
 - User names must be at least six characters in length
 - A new password must be different than the current password, and passwords must be at least eight characters in length
- **Medium** The same user name and password requirements as the Low setting, plus the following additional password complexity requirements:
 - · Contains at least two alphabetic characters
 - · Contains at least one numeric character
 - Contains at least one non-alphanumeric character (examples include ! ? \$ * #). Do not use spaces in the password.
- **High** The same user name and password requirements as the Medium setting, but passwords must be at least 15 characters and meet the following additional password complexity requirements:
 - · Contains at least one uppercase character
 - · Contains at least one lowercase character
 - At least half the characters cannot occupy the same positions as the current password.

The default is **Medium**.

ips{running-aaa}radius-group

Configure Radius group. Maximum number of radius groups is 2.

Syntax

radius-group RADIUSNAME

ips{running-aaa}remote-login-group

Configure LDAP, RADIUS group, or TACACS+ group to use for administrative login.



Note

You can also configure the SMS as a remote authentication source. Configure this using the SMS interface only. For more information, refer to the *SMS User Guide*.

The name you provide for each group cannot be changed. To give a group a new name, you must delete the group and re-create it with the new name.

Note

Both RADIUS and TACACS+ authentication use protocols that are not FIPScompliant. Before configuring RADIUS or TACACS+ for remote authentication, disable FIPS mode. For more information, see *fips-mode-enable on page 1-22*.

Syntax

```
remote-login-group (administrator) (GROUP|none)
```

ips{running-aaa}role

Configure an access role.

Syntax

role ROLE [OLDROLE]

ips{running-aaa}tacacs-group

Configure TACACS+ group. Maximum number of TACACS+ groups is two.

Syntax

tacacs-group TACACSNAME

ips{running-aaa}user

Configure a name identified user. When you enter a username that does not exist, a new user is created.

Syntax

user NAME

ips{running-aaa}user-group

Configure a name identified usergroup.

Syntax

user-group GROUPNAME

running-aaa-ldap-group-X Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-aaa-ldap-group-mygroup1}base-dn

Configure base distinguished name (DN).

Syntax

base-dn DN

ips{running-aaa-ldap-group-mygroup1}bind-dn

Configure bind distinguished name (DN).

bind-dn DN

ips{running-aaa-ldap-group-mygroup1}bind-password

Configure LDAP bind password.

Syntax

bind-password PASSWORD

ips{running-aaa-ldap-group-mygroup1}delete

Delete file or configuration item.

Syntax

delete server (ADDRESS|all)

ips{running-aaa-ldap-group-mygroup1}port

Configure LDAP port.

Syntax

port <0-65535>

ips{running-aaa-ldap-group-mygroup1}retries

Configure server(s) retries.

Syntax

retries RETRY

ips{running-aaa-ldap-group-mygroup1}schema

Configure schema.

Syntax

schema

ips{running-aaa-ldap-group-mygroup1}server

Configure LDAP server address.

Syntax

```
server (A.B.C.D|X:X::X:X) priority (1-6)
```

ips{running-aaa-ldap-group-mygroup1}timeout

Configure timeout.

Syntax

timeout SECONDS

ips{running-aaa-ldap-group-mygroup1}tls

Configure TLS.

Syntax

```
tls (enable|disable)
tls start-tls (enable|disable)
tls require-valid-server-cert (enable|disable)
```

ips{running-aaa-ldap-group-mygroup1}version

Configure version.

Syntax

version VERSION

running-aaa-radius-group-X Context Commands

ips{running-aaa-radius-group-2}default-usergroup

Default usergroup.

```
default-usergroup GROUP|none
```

ips{running-aaa-radius-group-2}delete

Delete file or configuration item.

Syntax

```
delete server (A.B.C.D|X:X::X:X|all)
```

ips{running-aaa-radius-group-2}auth-type

Specifies the authentication protocol for the RADIUS group. When the authentication protocol is PEAP/EAP-MSCHAPv2, be sure to also import the CA root certificate. The RADIUS group authenticates against the available CA root certificates on the device.

Syntax

```
auth-type PAP|MD5|PEAP/EAP-MSCHAPv2
```

Related commands

Command	DESCRIPTION
ips{running-certificates}ca-certificate on page 1-87	Import a CA certificate.

ips{running-aaa-radius-group-2}retries

Configure server retries.

Syntax

retries (0-3)

ips{running-aaa-radius-group-2}server

Configure server.

Syntax

server (A.B.C.D|X:X::X:X) [PORT] password PASSWORD priority (1-6) timeout (1-10) [nas-id NASID]

running-aaa-tacacs-group-X Context Commands

ips{running-aaa-tacacs-group-group1}auth-type

Specifies the authentication protocol for the TACACS+ group. Supported protocols include ASCII, PAP, and CHAP. The TACACS+ group authenticates against the available CA root certificates on the device.

Syntax

```
auth-type ASCII | PAP | CHAP
```

Related commands

Command	DESCRIPTION	
ips{running-certificates}ca-certificate on page 1-87	Import a CA certificate.	

ips{running-aaa-tacacs-group-group1}default-usergroup

Default usergroup. The default is operator.

Syntax

```
default-usergroup GROUP
```

ips{running-aaa-tacacs-group-group1}delete

Delete file or configuration item.

Syntax

delete server (A.B.C.D|X:X::X:X|all)

ips{running-aaa-tacacs-group-group1}retries

Configure server retries.

Syntax

retries (0-3)

ips{running-aaa-tacacs-group-group1}server

Configure TACACS+ server.

Syntax

```
server (A.B.C.D|X:X::X:X) [PORT] secret SECRET priority (1-6)
timeout (1-15)
```

running-actionsets Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-actionsets}actionset

Enter an action set context with defined name.

Syntax

actionsets ACTIONSETNAME

ips{running-actionsets}rename

Rename action set.

Syntax

rename actionset ACTIONSETNAME NEWACTIONSETNAME

running-actionsets-X Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-actionsets-myactionset1}action

Delete file or configuration item.

Set action type. Available values: permit, rate-limit, block, trust.

Immediate Commit Feature. Changes take effect immediately.

Syntax

action (permit|rate-limit|block|trust)

ips{running-actionsets-myactionset1}allow-access

Allow quarantined host to access defined IP.

Syntax

allow-access DESTIP

ips{running-actionsets-myactionset1}bytes-to-capture

Set bytes to capture for packet trace.

Syntax

bytes-to-capture BYTES

ips{running-actionsets-myactionset1}delete

Delete file or configuration item.

Syntax

```
delete allow-access DESTIP
delete contact XCONTACTNAME
delete limit-quarantine SOURCEIP
delete no-quarantine SOURCEIP
```

ips{running-actionsets-myactionset1}http-block

Set quarantine option to block HTTP traffic.

Syntax

http-block

ips{running-actionsets-myactionset1}http-redirect

Set redirect URL for HTTP redirect option.

Syntax

http-redirect URL

ips{running-actionsets-myactionset1}http-showdesc

Set or clear HTTP show description display option.

Syntax

http-showdesc (enable|disable)

ips{running-actionsets-myactionset1}limit-quarantine

Add IP for limit quarantine.

Syntax

limit-quarantine SOURCEIP

ips{running-actionsets-myactionset1}packet-trace

Configure packet trace option.

Syntax

packet-trace (enable|disable|delete|download)

ips{running-actionsets-myactionset1}priority

Set packet trace priority.

Syntax

priority PRIORITY

ips{running-actionsets-myactionset1}quarantine

Set quarantine option. Available options: no, immediate, threshold.

Syntax

quarantine QUARANTINETYPE

ips{running-actionsets-myactionset1}tcp-reset

Set tcp reset option for block action. Available options: none (disable), source, dest, or both.

Syntax

tcp-reset (none|source|dest|both)

ips{running-actionsets-myactionset1}threshold

Set quarantine threshold value.

Syntax

threshold (2-10000) (1-60)

ips{running-actionsets-myactionset1}verbosity

Set packet trace verbosity.

Syntax

```
verbosity (partial|full)
```

running-autodv Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-autodv}calendar

Enter Calendar Style.

Syntax

calendar

ips{running-autodv}delete

Delete file or configuration item.

Syntax

delete proxy delete proxy-password delete proxy-username

ips{running-autodv}disable

Disable service.

Syntax

disable

ips{running-autodv}enable

Enable service.

Syntax

enable

ips{running-autodv}list

List Installed Digital Vaccines.

Syntax

list

ips{running-autodv}periodic

Enter Periodic Style.

Syntax

periodic

ips{running-autodv}proxy

Configures a proxy server.

Syntax

proxy ADDR port PORT

ips{running-autodv}proxy-password

Sets a password for a proxy server.

Syntax

proxy-password PASSWD

ips{running-autodv}proxy-username

Sets a password for a proxy server.

Syntax

proxy-username USER

ips{running-autodv}update

Update AutoDV.

Syntax

update

running-autodv-periodic Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-autodv-periodic}day

Day of the week to update.

day (Sunday|Monday|Tuesday|Wednesday|Thursday|Friday|Saturday)

ips{running-autodv-periodic}period

Set number of days between update checks.

Syntax

```
period PERIOD
PERIOD Value range is 0 - 99, unit is days
```

ips{running-autodv-periodic}time

Time of day to check for updates.

Syntax

time HOURS:MINUTES HOURS Value range is 0 - 23 MINUTES Value range is 0 - 59

running-certificates Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-certificates}certificate

Add or update a device certificate with the certificate contents from your web server or with signing certificates and their associated private keys for use in client proxies. To inspect secure sessions, the TPS requires both the certificate and private keys from the web server or client proxy.

(Best Practice) Name the certificate so that you can safely and reliably assign it to the correct SSL server or client proxy.

When the keystore mode is **sms-managed**, use the SMS to manage device certificates and private keys.

Syntax

certificate CERTNAME

COMMAND	DESCRIPTION
ips{running-certificates}private-key on page 1-88	Import the private key from your web server or client proxy into the local keystore on the TPS device.
ips{running-sslinsp}server on page 1-134	Add an SSL server proxy to the TPS device with the same security settings as your web server, and assign the corresponding certificate and private key.
ips{running-sslinsp}client-proxy on page 1-131	Add an SSL client proxy to the device with your specified security settings and assign a signing certificate.

Related commands

ips{running-certificates}ca-certificate

Add CA certificate.

Syntax

ca-certificate CANAME

ips{running-certificates}cert-request

Create a certificate request for the device.

Syntax

cert-request CERTNAME

ips{running-certificates}delete

Delete file or configuration item.

Syntax delete (all|NAME)

ips{running-certificates}delete ?
Valid entries at this position are:

ca-certificate	Delete CA cetificate
cert-request	Delete certificate request
certificate	Delete device certificate and private key
signingcert-request	Delete certificate request
trust	Delete certificate authority trust
trust-store	Delete ca-store (all NAME)

ips{running-certificates}display

Display file or configuration item.

Syntax

display ITEM [pem|text]

ips{running-certificates}display ?		
Valid entries at this position are:		
ca-certificate	Display CA certificate content	
cert-request	Display certificate requests	
certificate	Display device certificate content	
default	Select a Default Certificate Authority	
signing-cert	Display signing certificate requests	
xml	Display in XML format	

ips{running-certificates}private-key

Import a private key into the keystore on the device and assign it to the specified device certificate. Use the **save-config** command to secure the private key in the keystore.

To inspect secure sessions, the TPS requires both the certificate and private key from your web server or client proxy.

When the keystore mode is **sms-managed**, this command is not applicable. Use the SMS to manage device certificates and private keys.

Syntax

private-key CERTNAME

COMMAND	DESCRIPTION
ips{running-certificates}certificate on page 1-86	Import the certificate from your web server or client proxy into the local keystore on the TPS device.
ips{running-sslinsp}server on page 1-134	Add an SSL server to the TPS device with the same security settings as your web server, and assign the corresponding certificate and private key.
ips{running-sslinsp}client-proxy on page 1-131	Add an SSL client proxy to the device with your specified security settings and assign a signing certificate.

Related commands

ips{running-certificates}rename

Rename a trust store.

Syntax

rename TRUSTSTORENAME NEWTRUSTSTORENAME

ips{running-certificates}signing-cert

Generate a signing certificate to authenticate any SSL server certificate to your client.

Syntax

```
signing-cert CERTNAME
(Enter 'exit' to abort the command)
Enter Common Name (string, required):
Enter Country (two letter code or 'none')[none]:
Enter State (string or 'none')[none]:
Enter Locality (string or 'none')[none]:
Enter Organization (string or 'none')[none]:
Enter Unit (string or 'none')[none]:
Enter E-mail (string or 'none')[none]:
```

```
Enter FQDN (a string or 'none')[none]:
Enter User FQDN (string or 'none')[none]:
-----BEGIN CERTIFICATE-----
<cert_contents>
-----END CERTIFICATE-----
```

ips{running-certificates}trust

Specify a certificate authority to trust.

Syntax

```
trust [default-ca] CANAME(( all)|( TRUST-TYPES){1,3})
```

ips{running-certificates}trust-store

Configure a store of trusted CA certificates.

Syntax

```
ips{running-certificates}trust-store TRUSTSTORE
ips{running-certificates-TRUSTSTORE}?
Valid entries at this position are:
add-ca
                      Add CA certificate to trust store
default-ca
                      Add or remove default CA certificates to
                           trust store
description
                      Add description to trust store
display
                      Display trust store configuration item
                      Display help information
help
                      Remove CA certificate from trust store
 remove-ca
```

running-dns Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-dns}delete

Immediate Commit Feature. Changes take effect immediately. Delete file or configuration item. A secondary domain-search can only be deleted if no tertiary exists. A primary domain-search can only be deleted if no secondary exists.

Syntax

```
delete domain-name
delete domain-search (primary|secondary|tertiary|all)
delete name-server (all|A.B.C.D|X:X::X:X)
delete proxy cache cleaning interval
delete proxy cache forwarder (all|A.B.C.D|X:X::X:X)
delete proxy cache maximum negative ttl
delete proxy cache maximum ttl
delete proxy cache size
```

ips{running-dns}domain-name

Immediate Commit Feature. Changes take effect immediately. Configure domain name.

Syntax

domain-name NAME

ips{running-dns}domain-search

Immediate Commit Feature. Changes take effect immediately. Configure domain search. A secondary domain-search can only be entered after a primary is entered and a tertiary can only be entered after a secondary is entered.

Syntax

domain-search (primary|secondary|tertiary) NAME

ips{running-dns}name-server

Configure DNS server.

Syntax

name-server (A.B.C.D|X:X::X:X)

ips{running-dns}proxy

Configure proxy.

Syntax

running-gen Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-gen}delete

Delete file or configuration item.

Syntax

delete host (NAME|all)

ips{running-gen}delete https-ca-certificate

Deletes an HTTPS CA certificate or CA certificate chain.

Syntax

```
deletehttps-ca-certificatedeleteDelete file or configuration itemhttps-ca-certificateDelete HTTPS CA certificate chain
```

ips{running-gen}delete https-certificate

Deletes an HTTPS certificate.

Syntax

```
deletehttps-certificatedeleteDelete file or configuration itemhttps-certificateDelete HTTPS certificate
```

ips{running-gen}ephemeral-port-range

Set the range of the ephemeral port (default is 32768-60999).

Syntax

```
ephemeral-port-range (default|(LOWRANGE HIGHRANGE))
default Default port range value 32768-60999 is applied
LOWRANGE Value of the first port
HIGHRANGE Value of the last port
```

ips{running-gen}host

Configure static address to host name association.

Syntax

```
host NAME (A.B.C.D|X:X::X:X)
```

ips{running-gen}https

Disable and enable HTTPS access on the TPS management port. By default, HTTPS access is enabled to allow the Security Management System (SMS) to manage the device.

Note that this command does not disable SSH access on the TPS management port. See *ips{running-gen}ssh on page 1-95* for more information.

Syntax

```
https (enable|disable)
```

ips{running-gen}https-certificate

Display or configure HTTPS certificate.

This command requires that you enter a private key in addition to the certificate.

Syntax

```
https-certificate
```

To view the contents of the certificate, including its common name and valid dates, use a tool such as Nmap or OpenSSL. Ensure that the tool you use runs on the same network as your TPS device.

For example:

```
nmap <device-ip-address or hostname> -p 443 -script ssl-cert
```

ips{running-gen}https-ca-certificate

Display or configure HTTPS CA certificate or a chain of CA certificates.

Syntax

https-ca-certificate

To view the contents of the certificate, including its common name and valid dates, use a tool such as Nmap or OpenSSL. Ensure that the tool you use runs on the same network as your TPS device.

For example:

nmap <device-ip-address or hostname> -p 443 -script ssl-cert

```
ips{running-gen}sms-allowed-ip
```

Configure allowed SMS IP addresses.

Syntax

```
sms-allowed-ip A.B.C.D (IPv4 address)
sms-allowed-ip A.B.C.D/M (IPv4 address with netmask)
sms-allowed-ip X:X::X:X (IPv6 address)
sms-allowed-ip X:X::X:X/M (IPv6 address with prefix length)
sms-allowed-ip all (All SMS IP addresses are allowed)
```

ips{running-gen}ssh

Disable and enable SSH access on the TPS management port. By default, SSH access is enabled to allow CLI access to the device.

When the SSH connection to a remote syslog breaks, the device automatically attempts to reconnect three times over the course of a minute (once every 20 seconds for one minute). Each failed attempt is logged locally, and if the connection is still broken after one minute, the device stops attempting to reconnect.

If the automatic attempts to reconnect fail, you must manually bring back up the SSH connection by disabling and then re-enabling the "Remote System Log" configuration. Any data that was queued before the connection was lost gets sent after the connection is re-established. All data is sent in real time.

Note that this command does not disable HTTPS access on the TPS management port. See *ips{running-gen}https on page 1-93* for more information.

Syntax

ssh (enable|disable)

Learn more on page 1-2 about SSH configuration.

ips{running-gen}timezone

Display or configure time zone.



Use the US option to specify a standard time zone in the United States.

Syntax

```
timezone GMT
timezone REGION CITY
REGION
(Africa|America|Antarctica|Arctic|Asia|Atlantic|
Australia|Europe|Indian|US|Pacific)
```

ips{running-gen}tls

Enable or disable TLS versions on the management interface.

Disable older TLS versions to secure the management interface. When deciding which TLS versions to disable, keep in mind that the SMS and Captive Portal communicate through the device's management interface.

Syntax

tls (TLSv1.0 |TLSv1.1 |TLSv1.2)(enable|disable)

running-high-availability Context Commands

Create or enter a high-availability context.

ips{running-high-availability}disable

Disables HA.

Syntax

disable

ips{running-high-availability}enable

Enables high-availability on the local device.

Syntax

enable

ips{running-high-availability}encryption

Applies encryption hash for a passphrase.

Syntax

encryption (passphrase PASSPHRASE)|enable|disable

ips{running-high-availability}partner

Specifies the HA partner.

For 440T and 2200T devices that use the HA port, enter the partner device serial number. For TX Series devices that use the MGMT port, enter the partner device MGMT port IP address.

Syntax

HA port:

partner SERIAL

MGMT port:

partner IP ADDRESS

running-inspection-bypass Context Commands

Enables, disables, or removes inspection bypass rules. Inspection bypass rules direct traffic through the TippingPoint TPS devices without inspection. You can view a list of current inspection bypass rules with the **display** command.



Important

When creating an inspection bypass rule that includes source and destination ports or IP addresses, you must first specify the IP protocol as UDP or TCP.

You can now define up to 32 inspection bypass rules on a TippingPoint TPS. Rule configurations that bypass IPv6 traffic or VLAN ranges require additional hardware resources. For example, a single inspection bypass rule for IPv6 or VLAN traffic can result in multiple port-VLAN rule combinations.

INSPECTION BYPASS RULE	RESULTING NUMBER OF PORT-VLAN RULE COMBINATIONS
IPv4 traffic on TCP 1556 with untagged traffic or a particular VLAN ID	1
IPv6 traffic on TCP 1556 with untagged traffic or a particular VLAN ID	2
IPv4 traffic on TCP 1556 with VLAN 10 – 100	90
IPv6 traffic on TCP 1556 with VLAN 10 – 100	180

Each TPS supports a maximum number of port-VLAN rule combinations. If the number of configured port-VLAN rule combinations exceeds the maximum threshold for the device, you cannot commit the changes.

For a	MAXIMUM (APPROXIMATE) NUMBER OF PORT-VLAN RULE COMBINATIONS
440T	256 when bypassing IPv4 128 when bypassing IPv6 traffic
2200T	2560 when bypassing IPv4 traffic 1280 when bypassing IPv6 traffic
1100TX	448 when bypassing IPv4 traffic 256 when bypassing IPv6 traffic
5500TX	1792 when bypassing IPv4 traffic 1024 when bypassing IPv6 traffic
8200TX	512 when bypassing IPv4 or IPv6 traffic
8400TX	512 when bypassing IPv4 or IPv6 traffic

Syntax

Type **help** and press Enter for more information.

```
ips{running-inspection-bypass}help
Valid commands are:
   delete RULENAME
   help [full|COMMAND]
   rule NEWRULENAME
   rule RULENAME
```

This command takes the following options:

ENTRY TITLE	DESCRIPTION
ID	Reference ID of the rule in the listing.
Enabled	Enable/disabled status.
Name	Name of the bypass rule. Inspection bypass rule names should be unique. The name is an SMS-only feature and does not appear on the managed device.
Ethernet Type	Type of Packets that are exempt from traffic based on the Rules criteria:
	• IP — Type of IP packets that are exempt.
	 Not IP — All non-IP packets that are exempt from inspection.
	 Protocol — Packets from a specified protocol that are exempt.
IP Protocol	Transport layer protocol of packets to exempt from inspection.
Statistics	Number of packets that match a bypass rule.
Src IP	Source IP address of packets to exempt from inspection.
Src Port	Source port of packets to exempt from inspection. This field is valid only if TCP or UDP is specified in the IP Protocol field.
Dst IP	Destination IP address of packets to exempt from inspection.
Dst Port	Destination port of packets to exempt from inspection. This field is valid only if TCP or UDP is specified in the IP Protocol field.

ENTRY TITLE	DESCRIPTION
Action	Action that the rule applies to the traffic. (TPS devices only)
	 Bypass (default) – Bypasses the traffic.
	Block – Blocks the traffic.
	 Redirect – Redirects the traffic. A Target Port field (required) is displayed for you to specify which segment port the traffic gets redirected to. This option is unselectable if no target port is available.
	 Ingress mirror – Mirrors (copies) traffic entering the port to another segment port before the traffic gets inspected. A Target Port field (required) is displayed for you to specify which segment port the traffic gets mirrored to. Four mirror-to-port (MTP) configurations are supported. This option is unselectable if no target port is available.
	• Egress mirror – Mirrors (copies) inspected traffic exiting the port to another segment port. A Target Port field (required) is displayed for you to specify which segment port the inspected traffic gets mirrored to. Four MTP configurations are supported. The port-assigned Virtual LAN (VLAN) is recorded inside the captured packet. This option is unselectable if no target port is available.

When you edit or create an inspection bypass rule, the context changes to that rule.

From the context of an inspection bypass rule, type **help** and press Enter for a list of commands, or type **help command** for help on a particular command.

ips{running-inspection-bypass-rule-myrule1}action

Specify which action the rule applies to the traffic.

Syntax

ips{running-inspection-bypass-rule-myrule1}action <action>
 [PORTNAME]

note 📍

Redirect and Mirror options are not supported for inspection bypass when there are no target ports available. To block incoming traffic:

ips{running-inspection-bypass-rule-myrule1}action block

To copy traffic entering the port and send it to segment port 5B before the traffic gets inspected:

```
ips{running-inspection-bypass-rule-myrule1}action
    ingress-mirror 5B
```

To capture all ingress IP traffic matching subnet 172.20.21.x, and redirect the traffic to port 1-1B:

Rule Name:	mirror1
ID:	1
Enabled:	true
Action:	ingress-mirror to port 1-1B
EthType:	ip
Ports:	<any></any>
IP Proto:	<any></any>
VLAN ID:	<any></any>
Source Port:	<any></any>
Destination Port:	<any></any>

Source Address:	172.20.21.0/24
Destination Address:	<any></any>
Packets matching switch rule:	Θ
Bytes matching switch rule:	0
Resources Allocated:	Θ
Rule Priority:	0

ips{running-inspection-bypass-rule-myrule1}eth

Specifies the Ethernet Type that you do not want to inspect. When you define an inspection bypass rule, an option without a specified value defaults to a value of "any". For example, if you do not specify a value for **eth**, it defaults to a value of any Ethernet Type.

Enter **help eth** and press Enter to display options for specifying an EtherType. Note that a value of **ip** specifies both IPv4 and IPv6.



Note

A full list of Ethernet Type values can be found at the Internet Assigned Numbers Authority <u>website</u>. When specifying an Ethernet Type as a hexadecimal value, prepend 0x, for example, 0x0806 for ARP.

ips{running-inspection-bypass-rule-myrule1}ip-proto

Specifies the IP protocols that you do not want to inspect. When you define an inspection bypass rule, an option without a specified value defaults to a value of "any". For example, if you do not specify a value for **ip-proto**, it defaults to a value of **any** IP protocol.

If you change the IP protocol to a protocol other than TCP or UDP, the corresponding TCP or UDP ports are automatically removed. Edit an inspection bypass rule and enter **ip-proto udp** to not inspect UDP traffic.

Note

A full list of IP protocol values can be found at the Internet Assigned Numbers Authority website at <u>http://www.iana.org/assignments/protocol-numbers</u>.

Syntax

Enter **help ip-proto** and press Enter to display options for specifying an IP protocol.

```
ips{running-inspection-bypass-rule-myrule1}help ip-proto
Enter ip protocol for inspection bypass rule
Syntax: ip-proto PROTO_OPTION|PROTO_VALUE
ip-proto Enter ip protocol for inspection bypass rule
PROTO_OPTION Enter ip protocol (udp or tcp) for inspection
bypass rule
Possible values for PROTO_OPTION are:
udp udp protocol
tcp tcp protocol
PROTO_VALUE Enter ip protocol value (e.g. 115 for L2TP)
```

ips{running-inspection-bypass-rule-myrule1}vlan-id

Specifies the VLAN traffic that you do not want to inspect. When you define an inspection bypass rule, an option without a specified value defaults to a value of "any". For example, if you do not specify a value for **vlan-id**, it defaults to **all** tagged and untagged traffic.

Syntax

Enter **help vlan-id** and press Enter to display options for specifying a range of VLAN IDs.

```
ips{running-inspection-bypass-rule-myrule1}help vlan-id
Valid commands are:
  vlan-id none
  vlan-id VLANID
  vlan-id range MINVLANID MAXVLANID
```

Edit an inspection bypass rule and enter **vlan-id none** to not inspect untagged VLAN traffic. Then, type **display** and press Enter to view your change.

running-interface Context Commands

Create or enter an interface context.

ips{running}interface nM

Enters context for configuring Ethernet settings. The port name, for example, 1A, is case-sensitive.

Syntax

interface nM	
Valid entries at this	position are:
delete	Delete file or configuration item
help	Display help information
physical-media	Configure ethernet port settings
restart	Restart Ethernet port
shutdown	Shutdown logical interface state

ips{running}interface mgmt

Enters context for configuring management settings.

Syntax

interface mgmt			
Valid entries at this	position are:		
delete	Delete file or configuration item		
description	Enter description for the management		
	interface		
help	Display help information		
host	Configure host name, location, or contact		
ip-filter	Limit which ip addresses can access mgmt		
port			
ipaddress	Configure IP address		
physical-media	Configure mgmt port speed/duplex		
route	Add IPv4/IPv6 static route		

running-ips Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-ips}afc-mode

Configures AFC mode.

Syntax

afc-mode AFCMODE

ips{running-ips}afc-severity

Configures AFC severity level.

Syntax

afc-severity SEVERITY

ips{running-ips}asymmetric-network

Configures asymmetric network mode.

Syntax

asymmetric-network enable | disable

ips{running-ips}connection-table

Configures connection table timeout.

Syntax

```
connection-table TIMEOUTTYPE SECONDSTIMEOUTTYPEConnection table timeout typePossible values forTIMEOUTTYPE are:non-tcp-timeoutConnection table non-tcp timeouttimeoutConnection table timeout
```

trust-timeout	Connection	table	trust timeout
SECONDS	Connection	table	timeout seconds

ips{running-ips}delete

Allows you to delete a profile.

Syntax

delete profile XPROFILENAME

ips{running-ips}deployment-choices

Lists deployment choices. Note that the deployment options displayed will vary according to the Digital Vaccine (DV) that is installed.

Syntax

deployment (Aggressive|Core|Default|Edge|Perimeter)



Note

Enter the full deployment name without quotes, including any [DEPRECATED] label.

ips{running-ips}display

Display all IPS configuration and profiles.

Syntax

display

ips{running-ips}display-categoryrules

Display category rules for all profiles.

Syntax

display-categoryrules

ips{running-ips}gzip-decompression

Sets GZIP decompression mode.

Syntax

gzip-decompression (enable|disable)

ips{running-ips}http-encoded-resp

Configures inspection of encoded HTTP responses.

Syntax

http-encoded-r	esp (accelerated inspect url-ncr STATUS) ignore
accelerated	Accelerated inspection of encoded HTTP responses
ignore	Ignore encoded HTTP responses
inspect	Inspect encoded HTTP responses

ips{running-ips}http-mode

Configures HTTP mode, which allows all TCP ports to be treated as HTTP ports for inspection purposes. If a flow does not have HTTP traffic, HTTP processing stops so that optimum performance is maintained.

Syntax

```
http-mode enable | disable
```

ips{running-ips}profile

Allows you to create or enter an IPS profile and configure whether the True-Client-IP address and additional HTTP context information are collected for the profile.

Syntax

```
profile PROFILENAME client-ip [enable|disable] http-context
      [enable|disable]
```

ips{running-ips}quarantine-duration

Sets quarantine duration.

Syntax

quarantine-duration DURATION DURATION value between 1 to 1440 minutes

ips{running-ips}rename

Renames a profile.

Syntax

rename profile PROFILENAME NEWPROFILENAME

running-ips-X Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-ips-1}categoryrule

Enters categoryrule context.

Syntax

categoryrule

ips{running-ips-1}delete

Delete file or configuration item.

Syntax

delete filter FILTERNUMBER FILTERNUMBER Existing filter number

ps{running-ips-1}deployment

Specify a profile deployment. Deployment options will vary according to the Digital Vaccine (DV) that is installed.

Syntax

deployment DEPLOYMENTNAME

🔏 Note

Enter the full deployment name without quotes, including any [DEPRECATED] label.

ips{running-ips-1}description

Edit description for a profile.

Syntax

description DESCRIPTION

ips{running-ips-1}filter

Creates or enters a filter context.

Syntax

filter FILTERNUMBER

running-log Context Commands

Create or enter a running-log context.

ips{running-log}delete

Delete file or configuration item.

Syntax

```
delete log audit CONTACT-NAME
delete log quarantine CONTACT-NAME
delete log system CONTACT-NAME
delete log-option xmsd( all) | ( LOG_OPTION)
delete logging-mode
```

```
help [full|COMMAND]
log audit CONTACT-NAME [ALL|none]
log quarantine CONTACT-NAME [ALL|none]
log system CONTACT-NAME [SEVERITY]
log-option xmsd( all)|( LOG_OPTION)
logging-mode unconditional|(conditional [threshold
        PERCENTAGE] [period TIMEOUT])
sub-system SUBSYSTEM [SEVERITY]
```

ips{running-log}log

Add log to a log session.

Syntax

ips{running-log}log-option

Add service log option.

Syntax

```
log-option xmsd( all)|( LOG_OPTION)
  log-option Add service log option
  xmsd Configure xmsd log options
  all Enable logging all options
  LOG_OPTION Log-option item for XMSD
    Possible values for LOG_OPTION are:
    segments Enable logging segments
```

mgmt	Enable	logging	mgmt
interface	Enable	logging	interface
xms_configure	Enable	logging	xms configure
xms_process	Enable	logging	xms process
xms_stream	Enable	logging	xms stream
aaa	Enable	logging	ааа
dns	Enable	logging	dns
ethernet	Enable	logging	ethernet
highavailability	Enable	logging	highavailability
linkmonitor	Enable	logging	linkmonitor
log	Enable	logging	log
ntp	Enable	logging	ntp
ports	Enable	logging	ports
services	Enable	logging	services
udm-conf-handler	Enable	logging	UDM configuration handler
snmp	Enable	logging	snmp
system	Enable	logging	system
qos	Enable	logging	qos
virtual-segments	Enable	logging	virtual-segments
xmsupdate	Enable	logging	xmsupdate
vrf	Enable	logging	vrf
x509	Enable	logging	x509
xipc	Enable	logging	xipc requests
trafficlights	Enable	logging	trafficlights requests
vlan-translations	Enable	logging	vlan-translations

ips{running-log}logging-mode

Configure logging behavior when the system is congested.

Syntax

	congested
unconditional	Always log even if traffic is dropped under high load
conditional	Disable logging if needed to prevent congestion (default)
threshold	Congestion threshold at which to disable logging (default: 1.0%)
PERCENTAGE	Congestion percentage (0.1% to 99.9%)
period	Amount of time to disable logging
	(default: 600 seconds)
TIMEOUT	Log disable time in seconds (60 to 3600)

ips{running-log}sub-system

Sets sub-system log level.

Syntax

sub-system SUBSYSTEM [SEVERITY] sub-system (COROSYNC|HTTPD|INIT|LOGIN|TOS|XMS|CRMADMIN) [alert|critical|debug|emergency|error|info|notice|warning|none] Possible values for SEVERITY are: emergency Panic condition messages (TOS critical) alert Immediate problem condition messages critical Critical condition messages error Error messages warning Warning messages notice Special condition messages info Informational messages debug Debug messages debug0 TOS Debug0 messages debug1 TOS Debug1 messages debug2 TOS Debug2 messages debug3 TOS Debug3 messages none Turn off messages

running-notifycontacts (email) Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-notifycontacts}contact

Create or edit a notify contact.

Syntax

```
contact CONTACTNAME
contact NEWNAME email
contact NEWNAME snmp COMMUNITY IP [PORT]
```

ips{running-notifycontacts}delete

Delete a contact or an email setting.

Syntax

```
delete contact XCONTACTNAME
delete EMAILSETTING
```

ips{running-notifycontacts}email-from-address

From email address.

Syntax

```
email-from-address EMAIL
```

ips{running-notifycontacts}email-from-domain

From domain name.

Syntax

email-from-domain DOMAIN

ips{running-notifycontacts}email-server

Set mail server IP.

Syntax

email-server IP

ips{running-notifycontacts}email-threshold

Set email threshold per minute

Syntax

```
email-threshold THRESHOLD
THRESHOLD Threshold-value, value range 1-35 per minute
```

ips{running-notifycontacts}email-to-default-address

Default to email address.

Syntax

```
email-to-default-address EMAIL
```

ips{running-notifycontacts}rename

Rename contact with new name.

Syntax

rename contact XCONTACTNAME NEWNAME

running-ntp Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-ntp}delete

Delete file or configuration item.

Syntax

```
delete key (all|ID)
delete server (all|HOST)
```

Valid entries: key Delete key from configuration all Delete all keys ID Key identifier server Delete remote NTP server all Delete all servers HOST Remote server address or name

ips{running-ntp}key

Configure NTP authentication key.

Syntax

```
key (1-65535) VALUE
Valid entries:
(1-65535) Key ID, required for authentication
VALUE Key value (1-20 characters)
```

ips{running-ntp}ntp

Enable or disable NTP service.

Syntax

```
ntp (enable|disable)
```

ips{running-ntp}polling-interval

Configure NTP server minimum polling interval.

Syntax

```
polling-interval SECONDS
SECONDS Interval in seconds
Possible values for SECONDS are:
2 2 seconds
4 4 seconds
8 8 seconds
```

16 16 seconds

32 32 seconds

64 64 seconds

ips{running-ntp}server

Configure remote NTP server.

Syntax

server	(dhcp A.B.C.D X:X::X:X FQDN)	[key	ID]	[prefer]
dhcp	Get server address from dhcp			
NAME	NTP remote server			
key	Key to be used			
ID	Key identifier			
prefer	Mark server as preferred			

running-rep Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-rep}delete

Delete file or configuration item.

Syntax

```
delete group USERGROUP
delete profile XPROFILENAME
Valid entries:
group Reputation group
profile Delete reputation profile
```

ips{running-rep}group

Create or enter reputation group context.

Syntax

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group USERGROUP Valid entries: USERGROUP Reputation usergroup name

ips{running-rep}nxdomain-response

Responds with NXDOMAIN (name does not exist) to clients that make DNS requests for hosts that are blocked.

Syntax

nxdomain-response (enable|disable)

ips{running-rep}profile

Create or enter reputation profile context.

Syntax

profile PROFILENAME

ips{running-rep}rename

Rename a reputation profile or group.

Syntax

```
rename group USERGROUP NEWUSERGROUP
rename profile XPROFILENAME NEWPROFILENAME
Valid entries:
group Reputation group
profile Reputation profile
```

running-rep-X (group X) Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-rep-1}delete

Delete file or configuration item.

Syntax

```
delete domain DOMAINNAME
delete ip (A.B.C.D|A.B.C.D/M|X:X::X:X|X:X:X:X/M)
Valid entries:
domain Domain name
ip IP address IPv4/IPv6/CIDR
```

ips{running-rep-1}description

Add a description to the reputation group.

Syntax

description DESCRIPTION

ips{running-rep-1}domain

New domain name.

Syntax

domain NEWDOMAIN

ips{running-rep-1}ip

New IP address (IPv5/IPv6/CIDR).

Syntax

ip IPADDRESS

running-rep-X (profile X) Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-rep-abc}action-when-pending

Set pending action to permit or drop.

Syntax

```
action-when-pending (permit|drop)
```

ips{running-rep-abc}check-destination-address

Enables or disables check destination address.

Syntax

check-destination-address (enable|disable)

ips{running-rep-abc}check-source-address

Enables or disables check source address.

Syntax

```
check-source-address (enable|disable)
Valid entries:
enable Enable check source address
disable Disable check source address
```

ips{running-rep-abc}delete

Delete file or configuration item.

Syntax

```
delete dns-except DOMAINNAME
delete filter REPGROUP
delete ip-except (A.B.C.D|A.B.C.D/M|X:X::X:X|X:X:X/M)
(A.B.C.D|A.B.C.D/M|X:X::X:X|X:X:X:X/M)
```

ips{running-rep-abc}dns-except

DNS domain exception.

Syntax

dns-except DOMAINNAME

ips{running-rep-abc}filter

Add a reputation filter rule.

Syntax

```
filter ALLGROUPNAME(enable [threshold [XACTIONSETNAME]])|
        (disable)
Valid entries:
enable Enable filter rule
THRESHOLD Set threshold (0-100)
XACTIONSETNAME Apply action set name
disable Disable filter rule
```

ips{running-rep-abc}ip-except

Add IP address exception.

Syntax

```
ip-except SOURCEIP DESTINATIONIP
SOURCEIP A.B.C.D or A.B.C.D/M or X:X::X:X or X:X::X:X/M
DESTINATIONIP A.B.C.D or A.B.C.D/M or X:X::X:X or X:X::X:X/M
```

security-policy-reset

Resets the IPS security policy to the default values.

Syntax

security-policy-reset

running-segments-segmentX Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-segments-segment0}description

Apply segment description.

Syntax

description TEXT

ips{running-segments-segment0}display

Display a segment configuration.

Syntax

display

ips{running-segments-segment0}high-availability

Intrinsic HA Layer 2 Fallback action block or permit.

Syntax

```
high-availability (block|permit)
block Enable block all
permit Enable permit all
```

ips{running-segments-segment0}link-down

Link down synchronization mode.

Syntax

```
link-down breaker [wait-time WAIT-TIME]
link-down hub
link-down wire [wait-time WAIT-TIME]
Valid entries:
breaker Enable breaker action
hub Enable hub action
wire Enable wire action
WAIT-TIME Time to wait before synchronizing in seconds
```

ips{running-segments-segment0}restart

Restart both ethernet ports of segment.

Syntax

restart

ips{running-segments-segment0}sflow

Configure sFlow packet export.

Syntax

sflow enable sample-rate [SAMPLE-RATE]|disable

running-services Context Commands

Immediate Commit Feature. Changes take effect immediately.

Syntax

<pre>ips{}edit ips{running}services</pre>				
Entering Immediate Commit Feature. Changes take effect immediately.				
<pre>ips{running-services}</pre>				
Valid entries at this position are:				
display	Display all services			
help	Display help information			
service	Edit a service			
ips{running-services}help service				
Edit a service				
Syntax: service SERVICE				
service Edit a service				
SERVICE Service name				
ips{running-services}service portmapper				
ips{running-services-portmapper}				
Valid entries at this position are:				
delete	Delete file or configuration item			
display	Display service configuration			
help	Display help information			
port	Add port(s) to service			

```
ips{running-services-portmapper}display
  # DEFAULT ENTRIES
 port tcp 111
 port tcp 32770 to 32779
 port udp 111
 port udp 32770 to 32779
 exit
ips{running-services-portmapper}help port
Add port(s) to service
Syntax: port tcp PORT [to LAST-PORT]
        port udp PORT [to LAST-PORT]
 port
              Add port(s) to service
              TCP
 tcp
  PORT
              Port number
              Enter range of ports
 to
  LAST-PORT Last port of range
              UDP
 udp
ips{running-services-portmapper}help delete port
Delete port(s) from service
Syntax: delete port tcp PORT [to LAST-PORT]
        delete port udp PORT [to LAST-PORT]
 delete
              Delete file or configuration item
              Delete port(s) from service
 port
              TCP
 tcp
 PORT
              Port number
 to
              Enter range of ports
  LAST-PORT
              Last port of range
 udp
              UDP
```

Notes

• You cannot create new services.

- You cannot delete services.
- You cannot delete the set of default ports assigned to services.
- You can add additional ports to a service.
- You can delete user-added ports from a service.
- TCP or UDP option is available depending on the service (some services are TCP only).

ips{running-services}display

Display service(s).

Syntax

display service (all|SERVICENAME)

```
ips{running-services}service
```

Edit a service.

Syntax

service SERVICENAME

running-services-X Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-services-myservice1}delete

Delete service parameters.

Syntax

```
delete icmp (all|NAME|NUMBER)
delete icmpv6 (all|NAME|NUMBER)
delete port tcp PORT [to LASTPORT]
delete port udp PORT [to LASTPORT]
delete port tcp all
```

```
delete port udp all
delete protocol (all|PROTONUM)
delete service (all|SERVICENAME)
Valid entries:
icmp Delete ICMPv4
icmpv6 Delete ICMPv6
port Delete port(s)
protocol Delete packet protocol number(s)
service Delete member service
```

ips{running-services-myservice1}port

Apply TCP or UDP port number.

Syntax

	port tcp	PORT [to LASTPORT]		
	port udp	PORT [to LASTPORT]		
Valid entries:				
	tcp	Apply TCP		
	PORT	Apply port number		
	to	Set port range to		
	LAST-PORT	Apply last port of range		
	udp	Apply UDP		

running-snmp Context Commands

Immediate Commit Feature. Changes take effect immediately.

ips{running-snmp}authtrap

Enable or disable SNMP authentication failure trap.

Syntax

```
authtrap (enable|disable)
```

ips{running-snmp}community

Configure SNMP read-only community.

Syntax

ips{running-snmp}delete

Delete file or configuration item.

Syntax

```
delete community (COMMUNITY|all)
delete trapsession ((A.B.C.D|X:X::X:X|FQDN) ver VERSION)|all)
delete username (USERNAME|all)
Valid entries:
community Delete SNMP read-only community
trapsession Delete a configured trap session
username Delete a configured user
```

ips{running-snmp}engineID

Configure SNMPv3 engine ID.

Syntax

```
engineID ENGINE-ID
ENGINE-ID SNMPv3 Engine ID (1-32 hex octets,
        ex: 0x800012ef0302a11aab33f4)
```

ips{running-snmp}snmp

Enable or disable SNMP.

Syntax

snmp (enable|disable)

ips{running-snmp}trapdest

Configure SNMP v2c or v3 trap destinations.

Syntax

•	[port PORT] ver 2c COMMUNITY [inform]	
	[port PORT] ver 3 USERNAME [inform]	
•	[port PORT] ver 3 USERNAME authtype AUTHTYPE	
AUTHPASS	[inform]	
trapdest HOST	[port PORT] ver 3 USERNAME authtype AUTHTYPE	
AUTHPASS	privproto	
Valid entries:		
HOST	IP address or DNS host name	
port	Configure SNMP port	
PORT	SNMP port (default 162)	
ver	Configure SNMP version (2c, or 3)	
2c	SNMPv2c	
COMMUNITY	Text to identify SNMP system community	
inform	Send information message instead of a trap	
3	SNMPv3	
USERNAME	Text to identify USM user name (for	
	authentication/privacy)	
level	Configure security level (noAuthNoPriv	
	authNoPriv/ authPriv)	
noAuthNoPriv	No authentication, no privacy	
authNoPriv	Authentication, no privacy	
authtype	Configure authentication type (MD5 SHA)	
AUTHTYPE	Authentication type	
Possible val	ues for AUTHTYPE are:	
MD5	Message Digest 5	

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SHA	Secure Hash Algorithm	
AUTHPASS	Authentication passphrase - must be at least	
	8 characters	
authPriv	Authentication and privacy	
privproto	Configure privacy protocol (DES AES)	
PRIVPROTO	Privacy protocol	
Possible values for PRIVPROTO are:		
DES	Data Encryption Security	
AES	Advanced Encryption Security	
PRIVPASS	Optional privacy passphrase - must be at least	
	8 characters	

ips{running-snmp}username

Configure SNMPv3 USM read-only user.

username USERNAME		
username USERNAME authtype AUTHTYPE AUTHPASS		
username USERNAM	E authtype AUTHTYPE AUTHPASS privproto	
PRIVPROTO [PRIVPASS]	
Valid entries:		
USERNAME	Text to identify USM user name (for	
	authentication/privacy)	
level	Configure security level	
	(noAuthNoPriv authNoPriv/ authPriv)	
noAuthNoPriv	No authentication, no privacy	
authNoPriv	Authentication, no privacy	
authtype	Configure authentication type (MD5 SHA)	
AUTHTYPE	Authentication type	
Possible value	s for AUTHTYPE are:	
MD5	Message Digest 5	
SHA	Secure Hash Algorithm	

AUTHPASS	Authentication passphrase - must be at least
	8 characters
authPriv	Authentication and privacy
privproto	Configure privacy protocol (DES AES)
PRIVPROTO	Privacy protocol
Possible	values for PRIVPROTO are:
DES	Data Encryption Security
AES	Advanced Encryption Security
PRIVPASS	Optional privacy passphrase - must be at least
	8 characters

running-sslinsp Context Commands

Use the ssl-insp context to specify the SSL sessions you want to inspect and to enable or disable SSL inspection.



While SSL inspection is disabled, you can configure SSL inspection to specify the SSL sessions you want to inspect.

```
help [full|COMMAND]
log sslInspection CONTACT-NAME [ALL|none]
profile PROFILE_NAME
rename client-decryption-policy CLIENT_DECRYPTION_
    POLICY_NAME NEW_CLIENT_DECRYPTION_POLICY_NAME
rename client-proxy CLIENT_PROXY_NAME NEW_CLIENT_
    PROXY_NAME
rename profile PROFILE_NAME NEW_PROFILE_NAME
rename server SERVER_NAME NEW_SERVER_NAME
server SERVER_NAME
server-inspection disable
server-inspection enable
```

ips{running-sslinsp}client-decryption-policy

Create or select a client decryption policy.

The decryption policy specifies which SSL traffic to always decrypt or to not decrypt—including domains, addresses, and server categories—and any exceptions.

<pre>ips{running-sslinsp} client-decryption-policy CLIENT_DECRYPTION_ POLICY_NAME</pre>		
Valid entries:		
delete	Delete file or configuration item	
description	Apply SSL client decryption policy	
	description	
display	Display SSL client-decryption-policy	
	configuration	
help	Display help information	
never-decrypt-address	Configure never decrypt destination	
	address	
never-decrypt-domain	Configure never decrypt Domain Name	

ips{running-sslinsp}client-inspection enable

Use the **client-inspection enable** command to begin inspecting SSL sessions based on the configuration you specify. While SSL inspection is disabled, you can configure SSL client inspection, but no sessions are inspected.

To enable SSL client inspection, the TPS device must be licensed for SSL inspection. To request an SSL Inspection license, contact your sales representative. Manage your license package by using the License Manager on the TMC. When you log in to the TMC, the License Manager is under **My Account > License Manager**.

Syntax

```
ips{running-sslinsp} client-inspection [enable|disable]
```

ips{running-sslinsp}client-proxy

Create or select an SSL client proxy.

The client proxy acts as an intermediary that performs SSL encryption and decryption between your client and the SSL server. The client proxy name must be unique and is limited to 128 characters, which can include uppercase and lowercase letters, digits, underscores, dashes, and spaces.

After you create the client-proxy, add it to an SSL inspection policy. If you attempt to create an SSL client policy within an SSL profile without defining an SSL client proxy, an error message is displayed.

	use after SSL decryption
delete	Delete file or configuration
	item
description	Apply or delete proxy
· · · · · · · · · · · · · · · · ·	description
	·
detection-port	Add or delete detection port
	or range
display	Display SSL client-proxy
	configuration
help	Display help information
http2-to-http1-downgrade	Enable or disable downgrade
	HTTP2 protocol to HTTP1
logging	Enable or disable SSL session
	logging
min-cert-key-len	Minimum certificate key length
protocol	Select SSL protocols
signing-cert	Select SSL signing certificate
tcp-reset	Enable or disable sending TCP
	reset on blocked connections
	reset on blocked connections

ips{running-sslinsp}log sslInspection

Use the log sslinspection command to save SSL inspection logging information to a particular notification contact. By default, the TPS device saves SSL inspection log information to the "Management Console" notification contact which is found in the *sslinspection.log* on the device.

Important

To generate SSL inspection log entries, enable logging on the SSL server proxy or client proxy for troubleshooting purposes only. By default, these proxies do not generate logging information except for failed connections. See *ips{running-sslinsp}server on page 1-134*.

Syntax

1-132

```
log sslInspection CONTACT-NAME [ALL|none]
```

ips{running-sslinsp}profile

Add, edit, or delete an SSL inspection profile. An SSL inspection *profile* describes the encrypted traffic that you want to protect using one or more server or client policies. A *server policy* consists of an SSL server, and any source IP address exceptions. A *client policy* consists of an SSL client proxy that performs SSL encryption and decryption between your client and the SSL server, an SSL trust store that establishes which certificate authorities you trust, and, optionally, a decryption policy. When you add or edit an SSL inspection profile, the CLI context changes to that profile. From the profile subcontext, view and change the default settings for that profile, for example, to add a server policy.

Note

To exit the edit configuration mode from any context, type the ! command and press Enter.

At least one server policy or client policy is required. When you create a new profile, you must add your policy to the profile and assign a name for your server or client proxy to the policy. The SSL server specifies the range of server IP addresses you want to protect along with your SSL server configuration details.

You can also update the policy to specify any source IP addresses that you do not want to inspect. Secure sessions between the server and the specified source IP addresses are not inspected.

Syntax

[delete] profile PROFILENAME	
Valid entries at this position are:	
client-policy	SSL client-policy
delete	Delete file or configuration item
description	Apply SSL inspection profile description
display	Display profile configuration

1-133

help	Display help information
policy	SSL server policy
rename	Rename an SSL client or server policy

Related commands

COMMAND	DESCRIPTION
ips{running-certificates}certificate on page 1-86	Import the certificate from your web server or client proxy into the local keystore on the device.
ips{running-certificates}private-key on page 1-88	Import the private key from your web server or client proxy into the local keystore on the TPS device.
ips{running-vsegs-VSEG_NAME}ssl-profile on page 1-143	Update the virtual segment to assign the SSL inspection profile.
ips{running-sslinsp}server on page 1-134	Add an SSL server with its assigned security certificate and private key.
ips{running-sslinsp}client-proxy on page 1-131	Add an SSL client proxy to the device with your specified security settings and assign a signing certificate.

ips{running-sslinsp}rename

Rename a specified SSL inspection object.

Syntax

rename [client-decryption-policy|client-proxy|profile|server]
 OLDNAME NEWNAME

ips{running-sslinsp}server

Add or edit an SSL server to specify the SSL server configuration you want the TippingPoint security device to proxy, including the SSL service.

You must specify the type of secure traffic that is accepted on the SSL detection port. For example, if the server accepts POP3S traffic on port 2000,

add an SSL server with a Detection Port of 2000 and a Decrypted Service of POP3. From the server subcontext, you can view and change the default settings for that server. When you finish, assign the SSL server proxy to an SSL server policy within an SSL inspection profile. Enable logging on the SSL server proxy for troubleshooting purposes only.



To exit the edit configuration mode from any context, type the ! command and press Enter.

The protocol SSL-PROTOCOL and cipher-suite SSL-PROTOCOL options have "auto-" commands to allow selection of cipher suites by protocol or protocols by cipher suite, respectively. Use the "auto-" command to add or delete ciphers based on what protocol is selected and what it supports.

By default, the IP address and device certificate for the server are not defined, and must be specified separately. Specify the **IP address** of your web server by entering up to 8 IPv4 addresses (separated by commas), or by specifying a CIDR range, such as 192.169.0.0/24. Specify or delete the **device certificates** that the TPS device uses to decrypt and encrypt TLS traffic across the specified range of server IP addresses. Make sure that the corresponding private keys are assigned to the device certificates.

ip	Apply IP addresses
logging	Enable SSL session logging
protocol	Select SSL protocols
tcp-reset	Send TCP reset to SSL server on blocked
	connection

Related commands

COMMAND	DESCRIPTION
ips{running-certificates}certificate on page 1-86	Import the certificate from your web server or client proxy into the local keystore on the device.
ips{running-certificates}private-key on page 1-88	Import the private key from your web server or client proxy into the local keystore on the TPS device.
ips{running-vsegs-VSEG_NAME}ssl-profile on page 1-143	Update the virtual segment to assign the SSL inspection profile.
ips{running-sslinsp}profile on page 1-133	Assign the SSL server to an SSL inspection profile.
ips{running-sslinsp}client-proxy on page 1-131	Add an SSL client proxy to the device with your specified security settings and assign a signing certificate.

ips{running-sslinsp}server-inspection enable

Use the server-inspection enable command to begin inspecting SSL sessions based on the configuration you specify. While SSL inspection is disabled, you can configure SSL server inspection, but no sessions are inspected.

To enable SSL server inspection, the TPS device must be licensed for SSL inspection. To request an SSL Inspection license, contact your sales representative. Manage your license package by using the License Manager on the TMC. When you log in to the TMC, the License Manager is under **My Account > License Manager**.

ips{running-sslinsp} server-inspection [enable|disable]

running-traffic-management Context Commands

Immediate Commit Feature. Changes take effect immediately.

When you create a traffic profile and add traffic filters, more options become available.

ips{running-trafmgmt}delete

Delete a traffic-management profile.

Syntax

```
delete PROFILE
```

ips{running-trafmgmt}profile

Create or enter traffic-management profile context. When traffic filters are added to a profile, more options become available.

Syntax

```
profile NEWTRAFPROFNAME
profile TRAFPROFNAME
```

ips{running-trafmgmt}rename

Rename traffic-management profile.

Syntax

rename profile TRAFPROFNAME NEWTRAFPROFNAME

running-virtual-segments Context Commands

Physical segments have predefined virtual segments. CIDRs and profiles are applied to the virtual segment. Virtual segments enable further management of VLAN traffic. Use this context to define an individual virtual segment.

Syntax

```
ips{running}virtual-segments
ips{running-vsegs}?
Valid entries at this position are:
delete Delete file or configuration item
help Display help information
rename Rename virtual-segment
virtual-segment Create or enter virtual-segment context
display Display file or configuration item
```

Notes

- A maximum of 64 virtual segments can be configured.
- Each virtual segment name must be unique.

ips{running-vsegs}delete virtual-segment

Delete a virtual-segment context. The position value for any higher virtual segments will be renumbered. Only user-created virtual segments can be deleted.

Syntax

delete virtual-segment VSEGNAME

ips{running-vsegs}display

Display file or configuration item.

Syntax

display {xml}

ips{running-vsegs}rename virtual-segment

Rename the virtual segment. Each virtual segment name must be unique.

rename virtual-segment VSEGNAME NEWVSEGNAME

ips{running-vsegs}virtual-segment

Create or enter virtual-segment context.

Syntax

```
virtual-segment VSEGNAME
virtual-segment NEWVSEGNAME
```

running-virtual-segment Context Commands

Physical segments have predefined virtual segments. CIDRs and profiles are applied to the virtual segment. Virtual segments enable further management of VLAN traffic.

<pre>ips{running-vsegs}virtual-segment segmentname ips{running-vsegs-segmentname}?</pre>		
Valid entries at this position are:		
bind	Bind physical ports to virtual segment	
delete	Delete file or configuration item	
description	Update virtual segment description	
display	Display file or configuration item	
dst-address	Add destination address to a virtual	
segment		
help	Display help information	
ips-profile	Virtual segment ips profile	
move	Move virtual segment priority position	
reputation-profile	Virtual segment reputation profile	
src-address	Add source address to a virtual segment	
ssl-profile	Virtual segment SSL profile	
traffic-profile	Virtual segment traffic-management	

	profile	
vlan-id	Add vlan id or	range to virtual segment

Notes

- A maximum of 64 virtual segments can be configured.
- Each virtual segment name must be unique.
- You can configure up to 4094 VLAN IDs per virtual segment.
- Each VLAN ID in a range counts individually. For example, vlan-id range 1 5 counts as five IDs.
- A CIDR counts as a single address. For example, 192.168.1.0/24 counts as one address.
- At least one traffic criteria must be defined for each virtual segment. Traffic criteria can be VLAN IDs, src-addresses, and dst-addresses.
- If no physical ports are defined on a virtual segment, the virtual segment will apply to all physical ports.
- If no VLAN IDs are defined on a virtual segment, all VLAN IDs are included.
- If no source addresses are defined, all source addresses are included. If no destination addresses are defined, all destination addresses are included.
- Position values must remain contiguous across all defined virtual segments, so there should never be a gap in the sequence.
- Position values start with 1 and increment by one for each new virtual segment added. The highest possible position value that can be configured is 64.

ips{running-vsegs}bind

Bind physical ports to virtual-segment.

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```
bind in-port PHYSPORT out-port PHYSPORT
```

ips{running-vsegs}delete bind

Delete a port-pair association from this virtual segment.

Syntax

```
delete bind in-port EXISTING_PHYSPORT out-port EXISTING_PHYSPORT
```

ips{running-vsegs}description

Add or edit the description of a virtual segment.

Syntax

description TEXT

ips{running-vsegs}display

Display file or configuration item.

Syntax

```
display {xml}
```

ips{running-vsegs}dst-address

Associate an IPv4 or IPv6 destination address or subnet, in CIDR format, with this virtual segment.

Syntax

dst-address ABCD | ABCDM | XXXX | XXXXM

Host IP addresses will include the submasks. For example, entering 192.168.1.1 will display as 192.168.1.1/32. You can associate a maximum of 250 destination addresses.

ips{running-vsegs}delete dst-address

Delete an IPv4 or IPv6 destination address or subnet associated with this virtual segment.

Syntax

delete dst-address all|ABCD|ABCDM|XXXX|XXXXM

If the all keyword is specified, all destination addresses are deleted from this virtual segment. Otherwise, specify an address.

Note

Host addresses are stored with a netmask of /32 or /128 for IPv4 or IPv6, respectively. Any address deletion requires that the netmask be supplied. For example, delete dst-address 192.168.1.1/32.

ips{running-vsegs-VSEG_NAME}ips-profile

Associate an existing IPS security profile with this virtual segment.

Syntax

ips-profile PROFILENAME

ips{running-vsegs-VSEG_NAME}delete ips-profile

Delete an existing IPS security profile associated with this virtual segment.

Syntax

delete ips-profile PROFILENAME

ips{running-vsegs-VSEG_NAME}reputation-profile

Associate an existing reputation profile with this virtual segment.

Syntax

reputation-profile PROFILENAME

ips{running-vsegs-VSEG_NAME}delete reputation-profile

Delete an existing reputation profile associated with this virtual segment.

Syntax

```
delete reputation-profile PROFILENAME
```

ips{running-vsegs-VSEG_NAME}ssl-profile

Edit the virtual segment to assign an SSL inspection profile.

Syntax

ssl-profile PROFILENAME

Related commands

Сомманд	DESCRIPTION
ips{running-sslinsp}profile on page 1-133	Create an SSL-inspection profile.

ips{running-vsegs-VSEG_NAME}delete ssl-profile

Delete an existing SSL inspection profile associated with this virtual segment.

Syntax

```
delete ssl-profile PROFILENAME
```

ips{running-vsegs}move

Add or edit the description of a virtual segment.

Syntax

```
move after VSEGNAME
move before VSEGNAME
move to position VALUE
```

Only user-created virtual segments can be moved.

Position values must remain contiguous across all defined virtual segments, so there should never be a gap in the sequence. Virtual segments in between the segment you are moving and the target may be renumbered. A virtual segment cannot be moved to a lower priority than a system-defined virtual segment.

VALUE must be an unsigned, non-zero integer number.

If VSEGNAME is the name of this virtual segment, the position value remains unchanged.

ips{running-vsegs}src-address

Associate an IPv4 or IPv6 source address or subnet, in CIDR format, with this virtual segment.

Syntax

```
src-address ABCD|ABCDM|XXXX|XXXXM
```

Host IP addresses will include the submasks. For example, entering 192.168.1.1 will display as 192.168.1.1/32. You can associate a maximum of 250 source addresses.

ips{running-vsegs}delete src-address

Delete an IPv4 or IPv6 source address or subnet associated with this virtual segment.

Syntax

```
delete src-address all ABCD ABCDM XXXX XXXXM
```

If the all keyword is specified, all source addresses are deleted from this virtual segment. Otherwise, specify an address.

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Host addresses are stored with a netmask of /32 or /128 for IPv4 or IPv6, respectively. Any address deletion requires that the netmask be supplied. For example, delete src-address 192.168.1.1/32.

ips{running-vsegs-vsegname}vlan-id

Associate a single VLAN ID or a range of consecutive VLAN IDs with this virtual-segment.

Syntax

```
vlan-id VLANID_NUMBER
vlan-id range MINADDR MAXADDR
```

This command can only be used after an individual virtual segment is defined.

Valid IDs can range from 1-4094. All 4094 VLAN IDs can be used.

```
ips{running-vsegs}delete vlan-id
```

Delete a single VLAN ID or a range of consecutive VLAN IDs associated with this virtual-segment.

Syntax

```
delete vlan-id all | EXISTING_VLANIDNUMBER
delete vlan-id range MINADDR MAXADDR
```

If the all keyword is specified, all VLAN IDs get deleted, including any VLAN ranges. Otherwise, specify the VLAN ID to be deleted.

running-vlan-translations Context Commands

Adds or removes a VLAN translation setting. Use the **auto-reverse** flag to automatically create a reverse VLAN translation.

```
ips{running-vlan-translations}help
Valid commands are:
   add-translation PORT VLANIN VLANOUT [auto-reverse]
   delete-translation PORT VLANIN
   help [full|COMMAND]
```

ips{running-vlan-translations}

Adds or removes a VLAN translation setting. The IPS creates a separate VLAN translation rule for each port you want to translate. A maximum of 8000 VLAN translation rules can be defined on a 440T or 2200T TPS. If the number of VLAN translation rules you want to commit exceed the specified limit, the device does not commit your changes.

Use the **auto-reverse** flag to automatically create a reverse VLAN translation.

Syntax

```
add-translation <PORT> <incoming VLAN ID> <outgoing VLAN ID>
   [auto-reverse]
```

delete-translation <PORT> <incoming VLAN ID>



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Item Code: TPEM69850/230927