



CHAPTER

30

show service-policy through show xlate Commands

show service-policy

To display the configured service policies, use the **show service-policy** command in global configuration mode.

```
show service-policy [global | interface intf] [inspect application_type [option] | set connection |
flow protocol {host src_host | src_ip src_mask} [eq src_port] {host dest_host |
dest_ip dest_mask} [eq dest_port] [icmp_number | icmp_control_message]]
```

Syntax Description

<i>application_type</i>	Sets the application type for which to show inspect statistics. Supported applications include esmtplibgtp, http, and sip .
<i>dest_ip</i>	The destination IP address of the traffic flow.
<i>dest_mask</i>	The subnet mask of the traffic flow destination IP address.
eq <i>dest_port</i>	(Optional) If you specify the flow protocol to be TCP or UDP, then you can specify the destination port used in the traffic flow.
eq <i>src_port</i>	(Optional) If you specify the flow protocol to be TCP or UDP, then you can specify the source port used in the traffic flow.
flow	(Optional) Specifies a traffic flow for which you want to see the policies that the FWSM would apply to the flow. The arguments and keywords following the flow keyword specify the flow in ip-5-tuple format.
global	(Optional) Limits output to the global policy, which applies to all interfaces.
host <i>dest_host</i>	The host destination IP address of the traffic flow.
host <i>src_host</i>	The host source IP address of the traffic flow.
<i>icmp_control_message</i>	(Optional) If you specify the flow protocol to be ICMP, this argument specifies an ICMP control message of the traffic flow. For valid values for the <i>icmp_control_message</i> argument, enter the show service-policy flow icmp {host src_host src_ip src_mask} {host dest_host dest_ip dest_mask} ? command.
<i>icmp_number</i>	(Optional) If you specify the flow protocol to be ICMP, this argument specifies the ICMP protocol number of the traffic flow.
inspect	(Optional) Limits the output to policies that include an inspect command.
interface <i>intf</i>	(Optional) Displays policies applied to the interface specified by the <i>intf</i> argument, where <i>intf</i> is the interface name given by the nameif command.
<i>option</i>	(Optional) Depending on the application type you specify with the inspect keyword, you can narrow the kind of statistics shown.
	For esmtplib and http :
	<ul style="list-style-type: none"> table—Shows runtime tables such as classification rules.
	For gtp :
	<ul style="list-style-type: none"> pdp-context—Shows the status of GTP PDP contexts. pdpmcb—Shows the status of the GTP PDP Master Control Block requests—Shows the status of GTP requests. statistics—Shows the statistics of of the GTP inspection policy.
<i>protocol</i>	The protocol used in the traffic flow. For valid values for the <i>protocol</i> argument, enter the show service-policy flow ? command.

set connection	(Optional) Limits output to policies that include the set connection command.
<i>src_ip</i>	The source IP address used in the traffic flow.
<i>src_mask</i>	The source IP netmask used in the traffic flow.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Global configuration	•	•	•	•	—

Command History

Release	Modification
3.1(1)	This command was introduced.

Usage Guidelines

The **flow** keyword lets you determine, for any flow that you can describe, the policies that the FWSM would apply to that flow. You can use this to check that your service policy configuration will provide the services you want for specific connections. The arguments and keywords following the **flow** keyword specifies the flow in ip-5-tuple format with no object grouping.

Because the flow is described in ip-5-tuple format, not all match criteria are supported. Following are the list of match criteria that are supported for flow match:

- **match access-list**
- **match port**
- **match default-inspection-traffic**

The number of embryonic connections displayed in the **show service-policy** command output indicates the current number of embryonic connections to an interface for traffic matching that defined by the **class-map** command.

**Note**

When you configure the **set connection conn-rate-limit** command, the output of **show service-policy** does not show current connection rate and drop count even if the policy is hit:

```
hostname# show service-policy
```

```
Global policy:
  Service-policy: 2
  Class-map: 2
    Set connection policy: conn-rate-limit 10
      current conn rate 0, drop 0
```

This is because of a limitation in the network processor.

Examples

The following is sample output from the **show service-policy global** command:

```
hostname# show service-policy global

Global policy:
Service-policy: global_policy
Class-map: inspection_default
Inspect: dns maximum-length 512, packet 0, drop 0, reset-drop 0
Inspect: ftp, packet 0, drop 0, reset-drop 0
Inspect: h323 h225, packet 0, drop 0, reset-drop 0
Inspect: h323 ras, packet 0, drop 0, reset-drop 0
Inspect: netbios, packet 0, drop 0, reset-drop 0
Inspect: rsh, packet 0, drop 0, reset-drop 0
Inspect: skinny, packet 0, drop 0, reset-drop 0
Inspect: sqlnet, packet 0, drop 0, reset-drop 0
Inspect: sunrpc, packet 0, drop 0, reset-drop 0
Inspect: tftp, packet 0, drop 0, reset-drop 0
Inspect: sip, packet 0, drop 0, reset-drop 0
Inspect: xdmcp, packet 0, drop 0, reset-drop 0
```

The following is sample output from the **show service-policy flow** command:

```
hostname# show service-policy flow udp host 209.165.200.229 host 209.165.202.158 eq 5060

Global policy:
Service-policy: global_policy
Class-map: inspection_default
Match: default-inspection-traffic
Action:
Input flow: inspect sip

Interface outside:
Service-policy: test
Class-map: test
Match: access-list test
Access rule: permit ip 209.165.200.229 255.255.255.224 209.165.202.158
255.255.255.224
Action:
Input flow: set connection conn-max 10
```

The following is sample output from the **show service-policy inspect http** command. This example shows the statistics of each **match** command in a match-any class map.

```
hostname# show service-policy inspect http

Global policy:
Service-policy: global_policy
Class-map: inspection_default
Inspect: http http, packet 1916, drop 0, reset-drop 0
protocol violations
packet 0
class http_any (match-any)
Match: request method get, 638 packets
Match: request method put, 10 packets
Match: request method post, 0 packets
Match: request method connect, 0 packets
log, packet 648
```

Related Commands

Command	Description
clear configure service-policy	Clears service policy configurations.
clear service-policy service-policy	Clears all service policy configurations.
service-policy	Configures the service policy.
show running-config service-policy	Displays the service policies configured in the running configuration.

show service-policy inspect gtp

To display the GTP configuration, use the **show service-policy inspect gtp** command in privileged EXEC mode.

```
show service-policy [interface int] inspect gtp {pdp-context [apn ap_name | detail | imsi
  IMSI_value | ms-addr IP_address | tid tunnel_ID | version version_num ] | pdpmcb | requests
  | statistics [gsn IP_address] }
```

Syntax Description.

apn	(Optional) Displays the detailed output of the PDP contexts based on the APN specified.
<i>ap_name</i>	Identifies the specific access point name for which statistics are displayed.
detail	(Optional) Displays the detailed output of the PDP contexts.
imsi	Displays the detailed output of the PDP contexts based on the IMSI specified.
<i>IMSI_value</i>	Hexadecimal value that identifies the specific IMSI for which statistics are displayed.
interface	(Optional) Identifies a specific interface.
<i>int</i>	Identifies the interface for which information will be displayed.
gsn	(Optional) Identifies the GPRS support node, which is interface between the GPRS wireless data network and other networks.
gtp	(Optional) Displays the service policy for GTP.
<i>IP_address</i>	IP address for which statistics are displayed.
ms-addr	(Optional) Displays the detailed output of the PDP contexts based on the MS Address specified.
pdp-context	(Optional) Identifies the Packet Data Protocol context.
pdpmcb	(Optional) Displays the status of the PDP master control block.
requests	(Optional) Displays status of GTP requests.
statistics	(Optional) Displays GTP statistics.
tid	(Optional) Displays the detailed output of the PDP contexts based on the TID specified.
<i>tunnel_ID</i>	Hexadecimal value that identifies the specific tunnel for which statistics are displayed.
version	(Optional) Displays the detailed output of the PDP contexts based on the GTP version.
<i>version_num</i>	Specifies the version of the PDP context for which statistics are displayed. The valid range is 0 to 255.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	—

Command History

Release	Modification
3.1(1)	This command was introduced.

Usage Guidelines

You can use the vertical bar | to filter the display. Type | for more display filtering options.

The **show pdp-context** command displays PDP context-related information.

The Packet Data Protocol context is identified by the tunnel ID, which is a combination of IMSI and NSAPI. A GTP tunnel is defined by two associated PDP Contexts in different GSN nodes and is identified with a Tunnel ID. A GTP tunnel is necessary to forward packets between an external packet data network and a mobile station user.

The **show gtp requests** command displays current requests in the request queue.

Examples

The following is sample output from the **show gtp requests** command:

```
hostname# show gtp requests
0 in use, 0 most used, 200 maximum allowed
```

You can use the vertical bar | to filter the display, as in the following example:

```
hostname# show service-policy gtp statistics | grep gsn
```

This example shows the GTP statistics with the word gsn in the output.

The following command shows the statistics for GTP inspection:

```
hostname# show service-policy inspect gtp statistics
GPRS GTP Statistics:
  version_not_support | 0 | msg_too_short | 0
  unknown_msg | 0 | unexpected_sig_msg | 0
  unexpected_data_msg | 0 | ie_duplicated | 0
  mandatory_ie_missing | 0 | mandatory_ie_incorrect | 0
  optional_ie_incorrect | 0 | ie_unknown | 0
  ie_out_of_order | 0 | ie_unexpected | 0
  total_forwarded | 0 | total_dropped | 0
  signalling_msg_dropped | 0 | data_msg_dropped | 0
  signalling_msg_forwarded | 0 | data_msg_forwarded | 0
  total_created_pdp | 0 | total_deleted_pdp | 0
  total_created_pdpmb | 0 | total_deleted_pdpmb | 0
  pdp_non_existent | 0
```

The following command displays information about the PDP contexts:

```
hostname# show service-policy inspect gtp pdp-context
1 in use, 1 most used, timeout 0:00:00

Version TID | MS Addr | SGSN Addr | Idle | APN
```

show service-policy inspect gtp

```
v1 | 1234567890123425 | 1.1.1.1 | 11.0.0.2 0:00:13 gprs.cisco.com
| user_name (IMSI): 214365870921435 | MS address: | 1.1.1.1
| primary pdp: Y | nsapi: 2
| sgsn_addr_signal: | 11.0.0.2 | sgsn_addr_data: | 11.0.0.2
| ggsn_addr_signal: | 9.9.9.9 | ggsn_addr_data: | 9.9.9.9
| sgsn control teid: | 0x000001d1 | sgsn data teid: | 0x000001d3
| ggsn control teid: | 0x6306ffa0 | ggsn data teid: | 0x6305f9fc
| seq_tpdu_up: | 0 | seq_tpdu_down: | 0
| signal_sequence: | 0
| upstream_signal_flow: | 0 | upstream_data_flow: | 0
| downstream_signal_flow: | 0 | downstream_data_flow: | 0
| RAupdate_flow: | 0
```

Table 30-1 describes each column the output from the **show service-policy inspect gtp pdp-context** command.

Table 30-1 PDP Contexts

Column Heading	Description
Version	Displays the version of GTP.
TID	Displays the tunnel identifier.
MS Addr	Displays the mobile station address.
SGSN Addr	Displays the serving gateway service node.
Idle	Displays the time for which the PDP context has not been in use.
APN	Displays the access point name.

Related Commands

Commands	Description
class-map	Defines the traffic class to which to apply security actions.
clear service-policy inspect gtp	Clears global GTP statistics.
debug gtp	Displays detailed information about GTP inspection.
gtp-map	Defines a GTP map and enables GTP map configuration mode.
inspect gtp	Applies a specific GTP map to use for application inspection.

show shun

To display shun information, use the **show shun** command in privileged EXEC mode.

```
show shun [src_ip | statistics]
```

Syntax Description

<i>src_ip</i>	(Optional) Displays the information for that address.
<i>statistics</i>	(Optional) Displays the interface counters only.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	—

Command History

Release	Modification
1.1(1)	This command was introduced.

Examples

The following is sample output from the **show shun** command:

```
hostname# show shun
shun (outside) 10.1.1.27 10.2.2.89 555 666 6
shun (inside1) 10.1.1.27 10.2.2.89 555 666 6
```

Related Commands

Command	Description
clear shun	Disables all the shuns that are currently enabled and clears the shun statistics.
shun	Enables a dynamic response to an attacking host by preventing new connections and disallowing packets from any existing connection.

show sip

To display SIP sessions, use the **show sip** command in privileged EXEC mode.

show sip

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple Context	System
Privileged EXEC	•	•	•	•	•

Command History

Release	Modification
3.1(1)	This command was introduced.

Usage Guidelines

The **show sip** command assists in troubleshooting SIP inspection engine issues and is described with the **inspect protocol sip udp 5060** command. The **show timeout sip** command displays the timeout value of the designated protocol.

The **show sip** command displays information for SIP sessions established across the FWSM. Along with the **debug sip** and **show local-host** commands, this command is used for troubleshooting SIP inspection engine issues.



Note

We recommend that you configure the **pager** command before using the **show sip** command. If there are a lot of SIP session records and the **pager** command is not configured, it will take a while for the **show sip** command output to reach its end.

Examples

The following is sample output from the **show sip** command:

```
hostname# show sip
Total: 2
call-id c3943000-960ca-2e43-228f@10.130.56.44
|state Call init, idle 0:00:01
call-id c3943000-860ca-7e1f-11f7@10.130.56.45
|state Active, idle 0:00:06
```

This sample shows two active SIP sessions on the FWSM (as shown in the `Total` field). Each `call-id` represents a call.

The first session, with the `call-id c3943000-960ca-2e43-228f@10.130.56.44`, is in the state `Call Init`, which means the session is still in call setup. Call setup is complete only when the ACK is seen. This session has been idle for 1 second.

The second session is in the state `Active`, in which call setup is complete and the endpoints are exchanging media. This session has been idle for 6 seconds.

Related Commands

Commands	Description
class-map	Defines the traffic class to which to apply security actions.
debug sip	Enables debug information for SIP.
inspect sip	Enables SIP application inspection.
show conn	Displays the connection state for different connection types.
timeout	Sets the maximum idle time duration for different protocols and session types.

show skinny

To troubleshoot SCCP (Skinny) inspection engine issues, use the **show skinny** command in privileged EXEC mode.

show skinny [audio | video]

Syntax Description

audio	Limits output to audio-related information.
video	Limits output to video-related information.

Defaults

If you do not use the audio or video keywords, output contains information for both audio and video, as applicable.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	—

Command History

Release	Modification
3.1(1)	This command was introduced.

Usage Guidelines

The **show skinny** command assists in troubleshooting SCCP (Skinny) inspection engine issues.

Examples

The following is sample output from the **show skinny** command under the following conditions. There are two active Skinny sessions set up across the FWSM. The first session is an audio session established between an internal Cisco IP Phone at local address 10.0.0.11 and an external Cisco CallManager at 172.18.1.33. TCP port 2000 is the CallManager. The second one is a video session established between another internal Cisco IP Phone at local address 10.0.0.22 and the same Cisco CallManager.

```
hostname# show skinny
LOCAL                FOREIGN                STATE
-----
1      10.0.0.11/52238      172.18.1.33/2000      1
  AUDIO 10.0.0.11/22948 172.18.1.22/20798
2      10.0.0.22/52232      172.18.1.33/2000      1
  VIDEO 10.0.0.22/20798 172.18.1.11/22948
```

The output indicates a call has been established between both internal Cisco IP Phones. The RTP listening ports of the first and second phones are UDP 22948 and 20798 respectively.

The following is the xlate information for these Skinny connections:

```
hostname# show xlate debug
2 in use, 2 most used
Flags: D|DNS, d|dump, I|identity, i|inside, n|no random,
       |o|outside, r|portmap, s|static
NAT from inside:10.0.0.11 to outside:172.18.1.11 flags si idle 0:00:16 timeout 0:05:00
NAT from inside:10.0.0.22 to outside:172.18.1.22 flags si idle 0:00:14 timeout 0:05:00
```

If you use the video keyword, output is limited to information about video sessions, as shown in the following example:

```
hostname# show skinny video
LOCAL                FOREIGN                STATE
-----
1      10.0.0.22/52232      172.18.1.33/2000      1
  VIDEO 10.0.0.22/20798      172.18.1.11/22948
```

If you use the audio keyword, output is limited to information about audio sessions, as shown in the following example:

```
hostname# show skinny audio
LOCAL                FOREIGN                STATE
-----
1      10.0.0.11/52238      172.18.1.33/2000      1
  AUDIO 10.0.0.11/22948      172.18.1.22/20798
```

Related Commands

Commands	Description
class-map	Defines the traffic class to which to apply security actions.
debug skinny	Enables SCCP debug information.
inspect skinny	Enables SCCP application inspection.
show conn	Displays the connection state for different connection types.
timeout	Sets the maximum idle time duration for different protocols and session types.

show snmp-server statistics

To display information about the SNMP server statistics, use the **show snmp-server statistics** command in privileged EXEC mode.

show snmp-server statistics

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple Context	System
Privileged EXEC	•	•	•	•	

Command History	Release	Modification
	3.1(1)	Support for this command was introduced.

Examples This example shows how to display the SNMP server statistics:

```
hostname# show snmp-server statistics
0 SNMP packets input
  0 Bad SNMP version errors
  0 Unknown community name
  0 Illegal operation for community name supplied
  0 Encoding errors
  0 Number of requested variables
  0 Number of altered variables
  0 Get-request PDUs
  0 Get-next PDUs
  0 Get-bulk PDUs
  0 Set-request PDUs (Not supported)
0 SNMP packets output
  0 Too big errors (Maximum packet size 512)
  0 No such name errors
  0 Bad values errors
  0 General errors
  0 Response PDUs
  0 Trap PDUs
```

Related Commands

Command	Description
snmp-server	Provides the security appliance event information through SNMP.
clear configure snmp-server	Disables the Simple Network Management Protocol (SNMP) server.
show running-config snmp-server	Displays the SNMP server configuration.

show ssh sessions

To display information about the active SSH session on the FWSM, use the **show ssh sessions** command in privileged EXEC mode.

```
show ssh sessions [ip_address]
```

Syntax Description	<i>ip_address</i> (Optional) Displays session information for only the specified IP address.
---------------------------	--

Defaults	No default behavior or values.
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Command Modes	The following table shows the modes in which you can enter the command:
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Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	—

Command History	Release	Modification
	1.1(1)	This command was introduced.

Usage Guidelines	The SID is a unique number that identifies the SSH session. The Client IP is the IP address of the system running an SSH client. The Version is the protocol version number that the SSH client supports. If the SSH only supports SSH version 1, then the Version column displays 1.5. If the SSH client supports both SSH version 1 and SSH version 2, then the Version column displays 1.99. If the SSH client only supports SSH version 2, then the Version column displays 2.0. The Encryption column shows the type of encryption that the SSH client is using. The State column shows the progress that the client is making as it interacts with the FWSM. The Username column lists the login username that has been authenticated for the session.
-------------------------	--

Examples	The following example shows sample output from the show ssh sessions command:
-----------------	--

```
hostname# show ssh sessions
SID Client IP      Version Mode Encryption Hmac      State           Username
0  172.69.39.39     1.99  IN   aes128-cbc md5      SessionStarted pat
                                OUT   aes128-cbc md5      SessionStarted pat
1  172.23.56.236   1.5   -    3DES     -        SessionStarted pat
2  172.69.39.29    1.99  IN   3des-cbc sha1     SessionStarted pat
                                OUT   3des-cbc sha1     SessionStarted pat
```

Related Commands

Command	Description
ssh disconnect	Disconnects an active SSH session.
ssh timeout	Sets the timeout value for idle SSH sessions.

show startup-config

To show the startup configuration or to show any errors when the startup configuration loaded, use the **show startup-config** command in privileged EXEC mode.

show startup-config [errors]

Syntax Description	errors	(Optional) Shows any errors that were generated when the FWSM loaded the startup configuration.
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Defaults No default behavior or values.

Command Modes The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System ¹
Privileged EXEC	•	•	•	•	•

1. The **errors** keyword is only available in single mode and the system execution space.

Command History	Release	Modification
	1.1(1)	This command was introduced.
	3.1(1)	The errors keyword was added.

Usage Guidelines In multiple context mode, this command shows the startup configuration for your current execution space: the system configuration or the security context.

To clear the startup errors from memory, use the **clear startup-config errors** command.

Examples The following is sample output from the **show startup-config** command:

```
hostname# show startup-config
: Saved
: Written by enable_15 at 01:44:55.598 UTC Thu Apr 17 2003

Version 7.0(0)28
!
interface GigabitEthernet0/0
 nameif inside
 security-level 100
 ip address 10.86.194.60 255.255.254.0
 webvpn enable
!
interface GigabitEthernet0/1
```

```

shutdown
nameif test
security-level 0
ip address 10.10.4.200 255.255.0.0
!

...
!
enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname firewall1
domain-name example.com
boot system disk0:/cdisk.bin
ftp mode passive
names
name 10.10.4.200 outside
access-list xyz extended permit ip host 192.168.0.4 host 150.150.0.3
!
ftp-map ftp_map
!
ftp-map inbound_ftp
deny-request-cmd appe stor stou
!

...

Cryptochecksum:4edf97923899e712ed0da8c338e07e63

```

The following is sample output from the **show startup-config errors** command:

```
hostname# show startup-config errors
```

```

ERROR: 'Mac-addresses': invalid resource name
*** Output from config line 18, " limit-resource Mac-add..."
INFO: Admin context is required to get the interfaces
*** Output from config line 30, "arp timeout 14400"
Creating context 'admin'... WARNING: Invoked the stub function ibm_4gs3_context_
set_max_mgmt_sess
WARNING: Invoked the stub function ibm_4gs3_context_set_max_mgmt_sess
Done. (1)
*** Output from config line 33, "admin-context admin"
WARNING: VLAN *24* is not configured.
*** Output from config line 12, context 'admin', " nameif inside"
.....
*** Output from config line 37, " config-url disk:/admin..."

```

Related Commands

Command	Description
clear startup-config errors	Clears the startup errors from memory.
show running-config	Shows the running configuration.

show sunrpc-server active

To display the pinholes open for Sun RPC services, use the **show sunrpc-server active** command in privileged EXEC mode.

show sunrpc-server active

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	—

Command History

Release	Modification
3.1(1)	This command was introduced.

Usage Guidelines

Use the **show sunrpc-server active** command to display the pinholes open for Sun RPC services, such as NFS and NIS.

Examples

To display the pinholes open for Sun RPC services, enter the **show sunrpc-server active** command. The following is sample output from the **show sunrpc-server active** command:

```
hostname# show sunrpc-server active
      LOCAL          FOREIGN          SERVICE TIMEOUT
-----
192.168.100.2/0 209.165.200.5/32780 100005 00:10:00
```

Related Commands

Command	Description
clear configure sunrpc-server	Clears the Sun RPC services from the FWSM.
clear sunrpc-server active	Clears the pinholes opened for Sun RPC services, such as NFS or NIS.
inspect sunrpc	Enables or disables Sun RPC application inspection and configures the port used.
show running-config sunrpc-server	Displays information about the Sun RPC services configuration.

show tcpstat

To display the status of the FWSM TCP stack and the TCP connections that are terminated on the FWSM (for debugging), use the **show tcpstat** command in privileged EXEC mode. This command supports IPv4 and IPv6 addresses.

show tcpstat

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	•

Command History

Release	Modification
1.1(1)	This command was introduced.

Usage Guidelines

The **show tcpstat** command lets you to display the status of the TCP stack and TCP connections that are terminated on the FWSM. The TCP statistics displayed are described in [Table 28](#).

Table 30-2 TCP Statistics in the show tcpstat Command

Statistic	Description
tcb_cnt	Number of TCP users.
proxy_cnt	Number of TCP proxies. TCP proxies are used by user authorization.
tcp_xmt pkts	Number of packets that were transmitted by the TCP stack.
tcp_rcv good pkts	Number of good packets that were received by the TCP stack.
tcp_rcv drop pkts	Number of received packets that the TCP stack dropped.
tcp bad chksum	Number of received packets that had a bad checksum.
tcp user hash add	Number of TCP users that were added to the hash table.
tcp user hash add dup	Number of times a TCP user was already in the hash table when trying to add a new user.
tcp user srch hash hit	Number of times a TCP user was found in the hash table when searching.

Table 30-2 TCP Statistics in the show tcpstat Command (continued)

Statistic	Description
tcp user srch hash miss	Number of times a TCP user was not found in the hash table when searching.
tcp user hash delete	Number of times that a TCP user was deleted from the hash table.
tcp user hash delete miss	Number of times that a TCP user was not found in the hash table when trying to delete the user.
lip	Local IP address of the TCP user.
fip	Foreign IP address of the TCP user.
lp	Local port of the TCP user.
fp	Foreign port of the TCP user.
st	State (see RFC 793) of the TCP user. The possible values are as follows: 1 CLOSED 2 LISTEN 3 SYN_SENT 4 SYN_RCVD 5 ESTABLISHED 6 FIN_WAIT_1 7 FIN_WAIT_2 8 CLOSE_WAIT 9 CLOSING 10 LAST_ACK 11 TIME_WAIT
rexqlen	Length of the retransmit queue of the TCP user.
inqlen	Length of the input queue of the TCP user.
tw_timer	Value of the time_wait timer (in milliseconds) of the TCP user.
to_timer	Value of the inactivity timeout timer (in milliseconds) of the TCP user.
cl_timer	Value of the close request timer (in milliseconds) of the TCP user.
per_timer	Value of the persist timer (in milliseconds) of the TCP user.
rt_timer	Value of the retransmit timer (in milliseconds) of the TCP user.
tries	Retransmit count of the TCP user.

Examples

The following is sample output from the **show tcpstat** command:

```
hostname# show tcpstat
          CURRENT MAX    TOTAL
tcb_cnt      2     12    320
proxy_cnt    0      0    160

tcp_xmt pkts = 540591
tcp_rcv good pkts = 6583
tcp_rcv drop pkts = 2
```

```
tcp bad chksum = 0
tcp user hash add = 2028
tcp user hash add dup = 0
tcp user srch hash hit = 316753
tcp user srch hash miss = 6663
tcp user hash delete = 2027
tcp user hash delete miss = 0

lip = 172.23.59.230 fip = 10.21.96.254 lp = 443 fp = 2567 st = 4 rexqlen = 0
in0
  tw_timer = 0 to_timer = 179000 cl_timer = 0 per_timer = 0
rt_timer = 0
tries 0
```

Related Commands

Command	Description
show conn	Displays the connections used and those that are available.

show tech-support

To display the information that is used for diagnosis by technical support analysts, use the **show tech-support** command in privileged EXEC mode.

show tech-support [**detail** | **file** | **no-config**]

Syntax Description

detail	(Optional) Lists detailed information.
file	(Optional) Writes the output of the command to a file.
no-config	(Optional) Excludes the output of the running configuration.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	—	•

Command History

Release	Modification
3.1(1)	The detail and file keywords were added.

Usage Guidelines

The **show tech-support** command lets you list information that technical support analysts need to help you diagnose problems. This command combines the output from the **show** commands that provide the most information to a technical support analyst.

Examples

The following example shows how to display information that is used for technical support analysis, excluding the output of the running configuration:

```
hostname# show tech-support no-config

Cisco XXX Firewall Version X.X(X)
Cisco Device Manager Version X.X(X)

Compiled on Fri 15-Apr-05 14:35 by root

XXX up 2 days 8 hours

Hardware: XXX, 64 MB RAM, CPU Pentium 200 MHz
Flash i28F640J5 @ 0x300, 16MB
BIOS Flash AT29C257 @ 0xffffd8000, 32KB

0: ethernet0: address is 0003.e300.73fd, irq 10
```

```

1: ethernet1: address is 0003.e300.73fe, irq 7
2: ethernet2: address is 00d0.b7c8.139e, irq 9
Licensed Features:
Failover:           Disabled
VPN-DES:            Enabled
VPN-3DES-AES:      Disabled
Maximum Interfaces: 3
Cut-through Proxy: Enabled
Guards:             Enabled
URL-filtering:      Enabled
Inside Hosts:       Unlimited
Throughput:         Unlimited
IKE peers:          Unlimited

This XXX has a Restricted (R) license.

Serial Number: 480430455 (0x1ca2c977)
Running Activation Key: 0xc2e94182 0xc21d8206 0x15353200 0x633f6734
Configuration last modified by enable_15 at 23:05:24.264 UTC Sat Nov 16 2002

----- show clock -----

00:08:14.911 UTC Sun Apr 17 2005

----- show memory -----

Free memory:        50708168 bytes
Used memory:        16400696 bytes
-----
Total memory:       67108864 bytes

----- show conn count -----

0 in use, 0 most used

----- show xlate count -----

0 in use, 0 most used

----- show blocks -----

  SIZE   MAX   LOW   CNT
    4    1600 1600  1600
   80     400  400   400
  256     500  499   500
 1550    1188  795   919

----- show interface -----

interface ethernet0 "outside" is up, line protocol is up
  Hardware is i82559 ethernet, address is 0003.e300.73fd
  IP address 172.23.59.232, subnet mask 255.255.0.0
  MTU 1500 bytes, BW 10000 Kbit half duplex
    1267 packets input, 185042 bytes, 0 no buffer
  Received 1248 broadcasts, 0 runts, 0 giants
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
  20 packets output, 1352 bytes, 0 underruns
  0 output errors, 0 collisions, 0 interface resets
  0 babbles, 0 late collisions, 9 deferred
  0 lost carrier, 0 no carrier
  input queue (curr/max blocks): hardware (13/128) software (0/2)
  output queue (curr/max blocks): hardware (0/1) software (0/1)
interface ethernet1 "inside" is up, line protocol is down
  Hardware is i82559 ethernet, address is 0003.e300.73fe

```

```

IP address 10.1.1.1, subnet mask 255.255.255.0
MTU 1500 bytes, BW 10000 Kbit half duplex
    0 packets input, 0 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    1 packets output, 60 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
    0 babbles, 0 late collisions, 0 deferred
    1 lost carrier, 0 no carrier
    input queue (curr/max blocks): hardware (128/128) software (0/0)
    output queue (curr/max blocks): hardware (0/1) software (0/1)
interface ethernet2 "intf2" is administratively down, line protocol is down
Hardware is i82559 ethernet, address is 00d0.b7c8.139e
IP address 127.0.0.1, subnet mask 255.255.255.255
MTU 1500 bytes, BW 10000 Kbit half duplex
    0 packets input, 0 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
    0 packets output, 0 bytes, 0 underruns
    0 output errors, 0 collisions, 0 interface resets
    0 babbles, 0 late collisions, 0 deferred
    0 lost carrier, 0 no carrier
    input queue (curr/max blocks): hardware (128/128) software (0/0)
    output queue (curr/max blocks): hardware (0/0) software (0/0)

```

```
----- show cpu usage -----
```

```
CPU utilization for 5 seconds = 0%; 1 minute: 0%; 5 minutes: 0%
```

```
----- show process -----
```

	PC	SP	STATE	Runtime	SBASE	Stack	Process
Hsi	001e3329	00763e7c	0053e5c8	0	00762ef4	3784/4096	arp_timer
Lsi	001e80e9	00807074	0053e5c8	0	008060fc	3832/4096	FragDBG
Lwe	00117e3a	009dc2e4	00541d18	0	009db46c	3704/4096	dbgtrace
Lwe	003cee95	009de464	00537718	0	009dc51c	8008/8192	Logger
Hwe	003d2d18	009e155c	005379c8	0	009df5e4	8008/8192	tcp_fast
Hwe	003d2c91	009e360c	005379c8	0	009e1694	8008/8192	tcp_slow
Lsi	002ec97d	00b1a464	0053e5c8	0	00b194dc	3928/4096	xlate clean
Lsi	002ec88b	00b1b504	0053e5c8	0	00b1a58c	3888/4096	uxlate clean
Mwe	002e3a17	00c8f8d4	0053e5c8	0	00c8d93c	7908/8192	tcp_intercept_times
Lsi	00423dd5	00d3a22c	0053e5c8	0	00d392a4	3900/4096	route_process
Hsi	002d59fc	00d3b2bc	0053e5c8	0	00d3a354	3780/4096	XXX Garbage Collec
Hwe	0020e301	00d5957c	0053e5c8	0	00d55614	16048/16384	isakmp_time_keep
Lsi	002d377c	00d7292c	0053e5c8	0	00d719a4	3928/4096	perfmon
Hwe	0020bd07	00d9c12c	0050bb90	0	00d9b1c4	3944/4096	IPSec
Mwe	00205e25	00d9e1ec	0053e5c8	0	00d9c274	7860/8192	IPsec timer handler
Hwe	003864e3	00db26bc	00557920	0	00db0764	6952/8192	qos_metric_daemon
Mwe	00255a65	00dc9244	0053e5c8	0	00dc8adc	1436/2048	IP Background
Lwe	002e450e	00e7bb94	00552c30	0	00e7ad1c	3704/4096	XXX/trace
Lwe	002e471e	00e7cc44	00553368	0	00e7bdcc	3704/4096	XXX/tconsole
Hwe	001e5368	00e7ed44	00730674	0	00e7ce9c	7228/8192	XXX/intf0
Hwe	001e5368	00e80e14	007305d4	0	00e7ef6c	7228/8192	XXX/intf1
Hwe	001e5368	00e82ee4	00730534	2470	00e8103c	4892/8192	XXX/intf2
H*	0011d7f7	0009ff2c	0053e5b0	780	00e8511c	13004/16384	ci/console
Csi	002dd8ab	00e8a124	0053e5c8	0	00e891cc	3396/4096	update_cpu_usage
Hwe	002cb4d1	00f2bfbc	0051e360	0	00f2a134	7692/8192	uauth_in
Hwe	003d17d1	00f2e0bc	00828cf0	0	00f2c1e4	7896/8192	uauth_thread
Hwe	003e71d4	00f2f20c	00537d20	0	00f2e294	3960/4096	udp_timer
Hsi	001db3ca	00f30fc4	0053e5c8	0	00f3004c	3784/4096	557mcfix
Crd	001db37f	00f32084	0053ea40	121094970	00f310fc	3744/4096	557poll
Lsi	001db435	00f33124	0053e5c8	0	00f321ac	3700/4096	557timer
Hwe	001e5398	00f441dc	008121e0	0	00f43294	3912/4096	fover_ip0

```

Cwe 001dcdad 00f4523c 00872b48      20 00f44344 3528/4096 ip/0:0
Hwe 001e5398 00f4633c 008121bc      0 00f453f4 3532/4096 icmp0
Hwe 001e5398 00f47404 00812198      0 00f464cc 3896/4096 udp_thread/0
Hwe 001e5398 00f4849c 00812174      0 00f475a4 3832/4096 tcp_thread/0
Hwe 001e5398 00f495bc 00812150      0 00f48674 3912/4096 fover_ip1
Cwe 001dcdad 00f4a61c 008ea850      0 00f49724 3832/4096 ip/1:1
Hwe 001e5398 00f4b71c 0081212c      0 00f4a7d4 3912/4096 icmp1
Hwe 001e5398 00f4c7e4 00812108      0 00f4b8ac 3896/4096 udp_thread/1
Hwe 001e5398 00f4d87c 008120e4      0 00f4c984 3832/4096 tcp_thread/1
Hwe 001e5398 00f4e99c 008120c0      0 00f4da54 3912/4096 fover_ip2
Cwe 001e542d 00f4fa6c 00730534      0 00f4eb04 3944/4096 ip/2:2
Hwe 001e5398 00f50afc 0081209c      0 00f4fbb4 3912/4096 icmp2
Hwe 001e5398 00f51bc4 00812078      0 00f50c8c 3896/4096 udp_thread/2
Hwe 001e5398 00f52c5c 00812054      0 00f51d64 3832/4096 tcp_thread/2
Hwe 003d1a65 00f78284 008140f8      0 00f77fdc 300/1024 listen/http1
Mwe 0035cafa 00f7a63c 0053e5c8      0 00f786c4 7640/8192 Crypto CA

```

```
----- show failover -----
```

```
No license for Failover
```

```
----- show traffic -----
```

```
outside:
```

```

received (in 205213.390 secs):
    1267 packets    185042 bytes
    0 pkts/sec      0 bytes/sec
transmitted (in 205213.390 secs):
    20 packets      1352 bytes
    0 pkts/sec      0 bytes/sec

```

```
inside:
```

```

received (in 205215.800 secs):
    0 packets       0 bytes
    0 pkts/sec      0 bytes/sec
transmitted (in 205215.800 secs):
    1 packets       60 bytes
    0 pkts/sec      0 bytes/sec

```

```
intf2:
```

```

received (in 205215.810 secs):
    0 packets       0 bytes
    0 pkts/sec      0 bytes/sec
transmitted (in 205215.810 secs):
    0 packets       0 bytes
    0 pkts/sec      0 bytes/sec

```

```
----- show perfmon -----
```

```

PERFMON STATS:      Current      Average
Xlates               0/s          0/s
Connections          0/s          0/s
TCP Conns            0/s          0/s
UDP Conns            0/s          0/s
URL Access           0/s          0/s
URL Server Req       0/s          0/s
TCP Fixup            0/s          0/s
TCPIntercept         0/s          0/s
HTTP Fixup           0/s          0/s
FTP Fixup            0/s          0/s
AAA Authen           0/s          0/s
AAA Author           0/s          0/s
AAA Account          0/s          0/s

```

Related Commands	Command	Description
	show clock	Displays the clock for use with the Syslog Server (PFSS) and the Public Key Infrastructure (PKI) protocol.
	show conn count	Displays the connections used and available.
	show cpu	Display the CPU utilization information.
	show failover	Displays the status of a connection and which FWSM is active
	show memory	Displays a summary of the maximum physical memory and current free memory that is available to the operating system.
	show perfmon	Displays information about the performance of the FWSM
	show processes	Displays a list of the processes that are running.
	show running-config	Displays the configuration that is currently running on the FWSM.
	show xlate	Displays information about the translation slot.

show traffic

To display interface transmit and receive activity, as well as traffic that passes through the control plane, use the **show traffic** command in privileged EXEC mode. Packets that go through the control plane path include the control packets for protocols that require Layer 7 inspection as well as management traffic.

show traffic [**detailed** *[type]* | **summary** *[type]*]

Syntax Description

detailed	(Optional) Shows detailed traffic counters for the control plane.
summary	(Optional) Shows traffic summary counters for the control plane.
<i>type</i>	(Optional) Shows the counters for a traffic type. See “ Usage Guidelines ” for a list of traffic types.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	•

Command History

Release	Modification
1.1(1)	This command was introduced.
3.1(1)	The summary and detailed keywords were added.

Usage Guidelines

The **show traffic** command (without any keywords) lists the number of packets and bytes moving through each interface since the last **show traffic** command was entered or since the FWSM came online. The number of seconds shown is the duration the FWSM has been online since the last reboot, unless the **clear traffic** command was entered since the last reboot. If this is the case, then the number of seconds shown is the duration since that command was entered.

For the **summary** and **detailed** keywords, this command shows the traffic that passes through the control plane, by packet type.

In multiple mode, the system shows cumulative values of all contexts, and the individual contexts show counters for that context only.

Table 30-3 lists the traffic types.

Table 30-3 Traffic Types

Type	Description
activex	ActiveX filtering
all	Shows counters for all transport protocols inspected
ctiqbe	CTIQBE protocol
dns	UDP-based domain name service
domain	TCP-based domain name service
ftp	FTP
ftp-filter	FTP Command filtering
gtp	GTP protocol
h323-h225	H225 protocol
h323-ras	H225 ras protocol
http	HTTP
https-filter	HTTPS protocol filtering
ils	ILS protocol
java	Java filtering
mgcp	MGCP protocol
netbios	NetBIOS protocol
pptp	PPTP
rpc	TCP RPC protocol
rpc-udp	UDP-based RPC protocol
rsh	Remote Shell
rtsp	Real Time Streaming Protocol
sftp	Strict FTP
sip	TCP-based SIP protocol
skinny	Skinny Protocol
smtp	SMTP protocol
snmp	SNMP protocol
sqlnet	SQLNet protocol
sunrpc	TCP-based SunRPC protocol
sunrpc-udp	UDP-based SunRPC protocol
tftp	TFTP
udp-sip	UDP-based SIP protocol
url-filter	URL filtering
xmcp	XDMCP protocol

Examples

The following example shows output from the **show traffic** command:

```
hostname# show traffic
inside:
    received (in 1557469.650 secs):
        157532 packets  13588525 bytes
        0 pkts/sec     0 bytes/sec
    transmitted (in 1557469.650 secs):
        157496 packets  13929928 bytes
        0 pkts/sec     0 bytes/sec
```

The following example shows output from the **show traffic summary** command:

```
hostname# show traffic summary
```

Traffic Type	Pkts-In	Bytes-In	Conn-Created	Conn-Destroyed
url-filter	0	0	0	0
dns	0	0	0	0
activex	0	0	0	0
java	0	0	0	0
domain	0	0	0	0
sftp	0	0	0	0
ftp	0	0	0	0
http	0	0	0	0
h323-h225	0	0	0	0
h323-ras	0	0	0	0
ils	0	0	0	0
sunrpc	0	0	0	0
rpc	0	0	0	0
rsh	0	0	0	0
rtsp	0	0	0	0
smtp	0	0	0	0
sqlnet	0	0	0	0
sip	0	0	0	0
skinny	0	0	0	0
sunrpc-udp	0	0	0	0
rpc-udp	0	0	0	0
xdmcp	0	0	0	0
udp-sip	0	0	0	0
netbios	0	0	0	0
ctiqbe	0	0	0	0
ftp-filter	0	0	0	0
https-filter	0	0	0	0
mgcp	0	0	0	0
tftp	0	0	0	0
snmp	0	0	0	0
pptp	0	0	0	0
gtp	0	0	0	0

The following example shows output from the **show traffic detailed** command:

```
hostname# show traffic detailed

Traffic Class: url-filter
                                packets received      0
                                bytes received        0
                                connections created    0
                                connections destroyed  0
                                delete indications received 0
                                garbage collection initiated connection closure 0
```

■ show traffic

```

connections destroyed due to flow handle reuse          0
control channel create requests                        0
data channel create requests                          0
Traffic Class: dns
                packets received                      0
                bytes received                       0
                connections created                   0
                connections destroyed                 0
                delete indications received           0
garbage collection initiated connection closure         0
connections destroyed due to flow handle reuse         0
connections closure initiated from control plane       0
control channel create requests                        0
data channel create requests                          0
....

```

Related Commands

Command	Description
clear traffic	Resets the counters for transmit and receive activity.

show uauth

To display one or all currently authenticated users (except for management sessions), the host IP to which they are bound, and any cached IP and port authorization information, use the **show uauth** command in privileged EXEC mode. This command does not show information about management sessions.

show uauth [*username*]

Syntax Description

username (Optional) Specifies, by username, the user authentication and authorization information to display.

Defaults

Omitting username displays the authorization information for all users.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple Context	System
Privileged EXEC	•	•	—	—	•

Command History

Release	Modification
1.1(1)	This command was introduced.

Usage Guidelines

The **show uauth** command displays the AAA authorization and authentication caches for one user or for all users.

Each user host IP address has an authorization cache attached to it. The cache allows up to 16 address and service pairs for each user host. If the user attempts to access a service that has been cached from the correct host, the FWSM considers it preauthorized and immediately proxies the connection. Once you are authorized to access a website, for example, the authorization server is not contacted for each image as it is loaded (assuming the images come from the same IP address). This process significantly increases performance and reduces the load on the authorization server.

The output from the **show uauth** command displays the username that is provided to the authorization server for authentication and authorization purposes, the IP address to which the username is bound, and whether the user is authenticated only or has cached services.



Note

When you enable Xauth, an entry is added to the uauth table (as shown by the **show uauth** command) for the IP address that is assigned to the client. However, when using Xauth with the Easy VPN Remote feature in Network Extension Mode, the IPsec tunnel is created from network to network, so that the users behind the firewall cannot be associated with a single IP address. For this reason, a uauth entry

cannot be created upon completion of Xauth. If AAA authorization or accounting services are required, you can enable the AAA authentication proxy to authenticate users behind the firewall. For more information on AAA authentication proxies, see the **aaa** commands.

Use the **timeout uauth** command to specify how long the cache should be kept after the user connections become idle. Use the **clear uauth** command to delete all the authorization caches for all the users, which will cause them to have to reauthenticate the next time that they create a connection.

Examples

This example shows sample output from the **show uauth** command when no users are authenticated and one user authentication is in progress:

```
hostname(config)# show uauth
Authenticated Users      Current      Most Seen
Authen In Progress      0            1
```

This example shows sample output from the **show uauth** command when three users are authenticated and authorized to use services through the FWSM:

```
hostname(config)# show uauth
user 'pat' from 209.165.201.2 authenticated
user 'robin' from 209.165.201.4 authorized to:
  port 192.168.67.34/telnet    192.168.67.11/http    192.168.67.33/tcp/8001
  192.168.67.56/tcp/25       192.168.67.42/ftp
user 'terry' from 209.165.201.7 authorized to:
  port 192.168.1.50/http     209.165.201.8/http
```

Related Commands

Command	Description
clear uauth	Remove current user authentication and authorization information.
timeout	Set the maximum idle time duration.

show url-block block statistics

To display the number of packets held in the URL block buffer and the number (if any) dropped because the buffer limit or retransmission has been exceeded, use the **show url-block block statistics** command in privileged EXEC mode.

show url-block block statistics

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple Context	System
Privileged EXEC	•	•	•	•	•

Command History

Release	Modification
1.1(1)	This command was introduced.

Usage Guidelines

The **show url-block block statistics** command displays the number of packets held in the URL block buffer and the number (if any) dropped because the buffer limit or retransmission has been exceeded.

Examples

The following is sample output from the **show url-block block statistics** command:

```
hostname# show url-block block statistics

URL Pending Packet Buffer Stats with max block 128 |
Cumulative number of packets held: | 896
Maximum number of packets held (per URL): | 3
Current number of packets held (global): | 38
Packets dropped due to
| exceeding url-block buffer limit: | 7546
| HTTP server retransmission: | 10
Number of packets released back to client: | 0
```

Related Commands	Commands	Description
	clear url-block block statistics	Clears the URL block buffer usage counters.
	filter url	Directs traffic to a URL filtering server.
	url-block	Manages the URL buffers used for web server responses.
	url-cache	Enables URL caching while pending responses from an N2H2 or Websense server and sets the size of the cache.
	url-server	Identifies an N2H2 or Websense server for use with the filter command.

show url-cache statistics

To display information about the url-cache, which is used for buffering URLs while waiting for responses from an N2H2 or Websense filtering server, use the **show url-cache statistics** command in privileged EXEC mode.

show url-cache statistics

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple Context	System
Privileged EXEC	•	•	•	•	•

Command History

Release	Modification
1.1(1)	This command was introduced.

Usage Guidelines

The **show url-cache statistics** command displays the following entries:

- Size—The size of the cache in kilobytes, set with the **url-cache size** option.
- Entries—The maximum number of cache entries based on the cache size.
- In Use—The current number of entries in the cache.
- Lookups—The number of times the FWSM has looked for a cache entry.
- Hits—The number of times the FWSM has found an entry in the cache.

You can view additional information about N2H2 Sentian or Websense filtering activity with the **show perfmon** command.

Examples

The following is sample output from the **show url-cache statistics** command:

```
hostname# show url-cache statistics

URL Filter Cache Stats
-----
| Size :      1KB
  Entries :      36
    In Use :      30
  Lookups :     300
```

■ show url-cache statistics

```
| Hits :      290
```

Related Commands

Commands	Description
clear url-cache statistics	Removes url-cache command statements from the configuration.
filter url	Directs traffic to a URL filtering server.
url-block	Manage the URL buffers used for web server responses.
url-cache	Enables URL caching while pending responses from an N2H2 or Websense server and sets the size of the cache.
url-server	Identifies an N2H2 or Websense server for use with the filter command.

show url-server

To display global and individual server information with the URL filtering server, use the **show url-server statistics** command in privileged EXEC mode.

show url-server [statistics]

Syntax Description **statistics** Displays global and individual URL server statistics.

Defaults No default behavior or values.

Command Modes The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	• ¹

1. This command is not supported in the system context when the multiple-context mode is configured.

Command History	Release	Modification
	1.1(1)	This command was introduced.
	3.1(1)	Added the statistics keyword.
	3.2(1)	Changed the format of the CLI output.

Usage Guidelines The **show url-server statistics** command displays the URL server vendor; the number of URLs total, allowed, and denied; the number of HTTPs connections total, allowed, and denied; the number of TCP connections total, allowed, and denied; and the URL server status.

Examples The following is sample output from the **show url-server statistics** command:

```
hostname# show url-server statistics

Global Statistics:
URLs total/allowed/denied 994387/155648/838739
URLs allowed by cache/server 70483/85165
URLS denied by cache/server 801920/36819
HTTPs total/allowed/denied 994387/155648/838739
HTTPs allowed by cache/server 70483/85165
HTTPs denied by cache/server 801920/36819
FTP s total/allowed/denied 994387/155648/838739
FTP s allowed by cache/server 70483/85165
FTP s denied by cache/server 801920/36819
Requests dropped 28715
Server timeouts/retries 567/1350
```

```

Processed rate average 60s/300s 1524/1344 requests/second
Denied rate average 60s/300s 35648/33022 requests/second
Dropped rate average 60s/300s 156/189 requests/second
URL Server Statistics:
192.168.0.1 UP
Vendor websense
Port 17035
Requests total/allowed/denied 366519/255495/110457
Server timeouts/retries 567/1350
Responses received 365952
Response time average 60s/300s 2/1 seconds/request
192.168.0.2 DOWN
Vendor websense
Port 17035
Requests total/allowed/denied 0/0/0
Server timeouts/retries 0/0
Responses received 0
Response time average 60s/300s 0/0 seconds/request
URL Packets Sent and Received Stats:
Message Sent Received
STATUS_REQUEST 411 0
LOOKUP_REQUEST 366519 365952
LOG_REQUEST 0 NA
Errors:
RFC noncompliant GET method 0
URL buffer update failure 0

```

Related Commands

Commands	Description
clear url-server	Clears the URL filtering server statistics.
filter url	Directs traffic to a URL filtering server.
url-block	Manage the URL buffers used for web server responses.
url-cache	Enables URL caching while pending responses from a Smart Filter or Websense server and sets the size of the cache.
url-server	Identifies a Smart Filter or Websense server for use with the filter command.

show version

To display the software version, hardware configuration, license key, and related uptime data, use the **show version** command in user EXEC mode.

show version

Syntax Description

This command has no arguments or keywords.

Defaults

No default behaviors or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple Context	System
User EXEC	•	•	•	•	•

Command History

Release	Modification
1.1(1)	This command was introduced.

Usage Guidelines

The **show version** command allows you to display the software version, operating time since the last reboot, processor type, Flash partition type, interface boards, serial number (BIOS ID), activation key value, license type (R or UR), and time stamp for when the configuration was last modified.

The serial number listed with the **show version** command is for the Flash partition BIOS. This number is different from the serial number on the chassis. When you get a software upgrade, you will need the serial number that appears in the **show version** command, not the chassis number.



Note

The uptime value indicates how long a failover set has been running. If one unit stops running, the uptime value will continue to increase as long as the other unit continues to operate.

Examples

The following example shows how to display the software version, hardware configuration, license key, and related uptime information on a Cisco PIX 500 series FWSM:

```
hostname> show version
Cisco PIX Firewall Version 7.0(1)
PIX (7.0.1.0) #15: Tue XXX 17 14:03:28 EDT 2005
pixfirewall up 5 days 21 hours
Hardware: PIX-515, 96 MB RAM, CPU Pentium 200 MHz
Flash i28F640J5 @ 0x300, 16MB
BIOS Flash unknown @ 0x0, 0KB
0: Ext: Ethernet0 : media index 0: irq 10
```

■ show version

```

1: Ext: Ethernet1 : media index 1: irq 7
License Features for this Platform:
Maximum Physical Interfaces : 3
Maximum VLANs : 10
Inside Hosts : Unlimited
Failover : Disabled
VPN-DES : Enabled
VPN-3DES-AES : Enabled
Failover standby only : Disabled
Cut-through Proxy : Enabled
Guards : Enabled
URL-filtering : Enabled
Security Contexts : 0
GTP/GPRS : Disabled
VPN Peers : Unlimited
This machine has a Restricted (R) license.
Serial Number: 12345678
Running Activation Key: 0xbd27f269 0xbc7ebd46 0x1c73e474 0xbb782818 0x071dd0a6

```

Related Commands

Command	Description
show hardware	Displays detail hardware information.
show serial	Displays the hardware serial information.
show uptime	Displays how long the FWSM has been up.

show vlan

To display the system VLANs, use the **show vlan** command in global configuration and privileged EXEC mode.

show vlan

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Global configuration and privileged EXEC	•	•	•	•	•

Command History

Release	Modification
1.1(1)	This command was introduced.

Usage Guidelines

When you use the **show vlan** command, only VLANs added by the switch are shown.

Examples

The following example displays the system VLANs:

```
hostname(config)# show vlan
10-11, 30, 40, 300
```

Related Commands

Command	Description
clear interface	Clears counters for the show interface command.
clear vlan	Clears the VLANs.
interface	Configures an interface and enters interface configuration mode.
show interface	Displays the runtime status and statistics of interfaces.

show vpn-sessiondb

To display information about VPN sessions, use the **show vpn-sessiondb** command in privileged EXEC mode. The command includes options for displaying information in full or in detail, lets you specify type of sessions to display, and provides options to filter and sort the information. The syntax table and usage notes organize the choices accordingly.

```
show vpn-sessiondb [detail] [full] {remote | l2l | index indexnumber | webvpn | email-proxy}
[filter {name username | ipaddress IPaddr | a-ipaddress IPaddr | p-ipaddress IPaddr |
tunnel-group groupname | protocol protocol-name | encryption encryption-algo}]
[sort {name | ipaddress | a-ipaddress | p-ip address | tunnel-group | protocol | encryption}]
```

Syntax Descriptions

Granularity of Display

detail	Displays extended details about a session. For example, using the detail option for an IPsec session displays additional details such as the IKE hashing algorithm, authentication mode, and rekey interval. If you choose detail , and the full option, the FWSM displays the detailed output in a machine-readable format.
filter	Filters the output to display only the information you specify by using one or more of the filter options. For more information, see Usage Guidelines Usage Guidelines.
full	Displays streamed, untruncated output. Output is delineated by characters and a \n string between records.
sort	Sorts the output according to the sort option you specify. For more information, see Usage Guidelines Usage Guidelines.

Session Type to Display

email-proxy	Displays email-proxy sessions. You can display this information for e-mail proxy sessions, or you can filter it by using the following filter and sort options: name (connection name), ipaddress (client), encryption .
index <i>indexnumber</i>	Displays a single session by index number. Specify the index number for the session, 1 - 750. Filter and sort options do not apply.
l2l	Displays VPN LAN-to-LAN session information. You can display this information for all groups or you can filter it by using the following filter and sort options: name , ipaddress , protocol , encryption .
remote	Displays remote-access sessions. You can display this information for all groups or you can filter it by using the following filter options: name , a-ipaddress , p-ipaddress , tunnel-group , protocol , encryption .
webvpn	Displays information about WebVPN sessions. You can display this information for all groups or you can filter it by using the following filter and sort options: name , ipaddress , encryption .

Defaults

No default behavior or values.

Filter/Sort Option	Meaning
sort protocol	Sorts the display by protocol. Protocols include: IKE L2TPOverIPSec IMAP4S L2TPOverIPISecOverNatT IPSec POP3S IPSecLAN2LAN PPPoE IPSecLAN2LANOverNatT SMTPS IPSecOverNatT userHTTPS IPSecoverTCP vcaLAN2LAN IPSecOverUDP
filter tunnel-group <i>groupname</i>	Filters the output to display information for the specified tunnel group(s) only.
sort tunnel-group	Sorts the display by tunnel group.
character	Modifies the output, using the following arguments: {begin include exclude grep [-v]} {reg_exp}
<cr>	Sends the output to the console.

The following example, entered in privileged EXEC mode, shows detailed information about LAN-to-LAN sessions:

```

hostname# show vpn-sessiondb detail 121
Session Type: LAN-to-LAN Detailed
Connection   : 172.16.0.1
Index        : 1                               IP Addr      : 172.16.0.1
Protocol     : IPSecLAN2LAN                    Encryption   : AES256
Bytes Tx     : 48484156                         Bytes Rx     : 875049248
Login Time   : 09:32:03 est Mon Aug 2 2004
Duration     : 6:16:26
Filter Name  :

IKE Sessions: 1 IPSec Sessions: 2

IKE:
  Session ID   : 1
  UDP Src Port : 500                               UDP Dst Port : 500
  IKE Neg Mode : Main                             Auth Mode    : preSharedKeys
  Encryption   : AES256                           Hashing      : SHA1
  Rekey Int (T): 86400 Seconds                     Rekey Left(T): 63814 Seconds
  D/H Group    : 5

IPSec:
  Session ID   : 2
  Local Addr   : 10.0.0.0/255.255.255.0
  Remote Addr  : 209.165.201.30/255.255.255.0
  Encryption   : AES256                           Hashing      : SHA1
  Encapsulation: Tunnel                           PFS Group    : 5
  Rekey Int (T): 28800 Seconds                     Rekey Left(T): 10903 Seconds
  Bytes Tx     : 46865224                         Bytes Rx     : 2639672
  Pkts Tx      : 1635314                          Pkts Rx      : 37526

```

```

IPSec:
  Session ID      : 3
  Local Addr     : 10.0.0.1/255.255.255.0
  Remote Addr    : 209.165.201.30/255.255.255.0
  Encryption     : AES256
  Hashing        : SHA1
  Encapsulation : Tunnel
  PFS Group      : 5
  Rekey Int (T) : 28800 Seconds
  Rekey Left(T) : 6282 Seconds
  Bytes Tx       : 1619268
  Bytes Rx       : 872409912
  Pkts Tx        : 19277
  Pkts Rx        : 1596809

```

```
hostname#
```

Related Commands

Command	Description
show running-configuration vpn-sessiondb	Displays the VPN session database running configuration.
show vpn-sessiondb ratio	Displays VPN session encryption or protocol ratios.
show vpn-sessiondb summary	Displays a summary of all VPN sessions.

show vpn-sessiondb ratio

To display the ratio of current sessions as a percentage by protocol or encryption algorithm, use the **show vpn-sessiondb ratio** command in privileged EXEC mode.

```
show vpn-sessiondb ratio {protocol | encryption} [filter groupname]
```

Syntax Description	encryption																
	Identifies the encryption protocols you want to display. Refers to phase 2 encryption. Encryption algorithms include:																
	<table border="0"> <tr> <td>aes128</td> <td>des</td> </tr> <tr> <td>aes192</td> <td>3des</td> </tr> <tr> <td>aes256</td> <td>rc4</td> </tr> </table>	aes128	des	aes192	3des	aes256	rc4										
aes128	des																
aes192	3des																
aes256	rc4																
	filter <i>groupname</i> Filters the output to include session ratios only for the tunnel group you specify.																
	protocol Identifies the protocols you want to display. Protocols include:																
	<table border="0"> <tr> <td>IKE</td> <td>SMTTPS</td> </tr> <tr> <td>IMAP4S</td> <td>userHTTPS</td> </tr> <tr> <td>IPSec</td> <td>vcaLAN2LAN</td> </tr> <tr> <td>IPSecLAN2LAN</td> <td></td> </tr> <tr> <td>IPSecLAN2LANOverNatT</td> <td></td> </tr> <tr> <td>IPSecOverNatT</td> <td></td> </tr> <tr> <td>IPSecoverTCP</td> <td></td> </tr> <tr> <td>IPSecOverUDP</td> <td></td> </tr> </table>	IKE	SMTTPS	IMAP4S	userHTTPS	IPSec	vcaLAN2LAN	IPSecLAN2LAN		IPSecLAN2LANOverNatT		IPSecOverNatT		IPSecoverTCP		IPSecOverUDP	
IKE	SMTTPS																
IMAP4S	userHTTPS																
IPSec	vcaLAN2LAN																
IPSecLAN2LAN																	
IPSecLAN2LANOverNatT																	
IPSecOverNatT																	
IPSecoverTCP																	
IPSecOverUDP																	

Defaults No default behavior or values.

Command Modes The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	—	—	•

Command History	Release	Modification
	3.1(1)	Support for this command was introduced.

Examples The following is sample output for the **show vpn-sessiondb ratio** command, with **encryption** as the argument:

```

hostname# show vpn-sessiondb ratio enc
Filter Group      : All
Total Active Sessions: 5
Cumulative Sessions : 9

Encryption          Sessions      Percent
none                 0             0%
DES                  1             20%
3DES                 0             0%
AES128               4             80%
AES192               0             0%
AES256               0             0%

```

The following is sample output for the **show vpn-sessiondb ratio** command with **protocol** as the argument:

```

hostname# show vpn-sessiondb ratio protocol
Filter Group      : All
Total Active Sessions: 6
Cumulative Sessions : 10

Protocol           Sessions      Percent
IKE                 0             0%
IPSec               1             20%
IPSecLAN2LAN       0             0%
IPSecLAN2LANOverNatT 0             0%
IPSecOverNatT      0             0%
IPSecOverTCP        1             20%
IPSecOverUDP        0             0%
userHTTPS           0             0%
IMAP4S              3             30%
POP3S                0             0%
SMTPS                3             30%

```

Related Commands

Command	Description
show vpn-sessiondb	Displays sessions with or without extended details, optionally filtered and sorted by criteria you specify.
show vpn-sessiondb summary	Displays a session summary, including total current session, current sessions of each type, peak and total cumulative, maximum concurrent sessions.

show vpn-sessiondb summary

To display the a summary of current VPN sessions, use the **show vpn-sessiondb summary** command in privileged EXEC mode. The session summary includes total current sessions, current sessions of each type, peak and total cumulative sessions, and maximum concurrent sessions.

show vpn-sessiondb summary

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple Context	System
Privileged EXEC	•	•	—	—	•

Command History

Release	Modification
3.1(1)	Support for this command was introduced.

Examples

The following is sample output for the **show vpn-sessiondb summary** command:

```
hostname# show vpn-sessiondb summary

Active Sessions:                Session Information:
  LAN-to-LAN : 2                 Peak Concurrent : 7
  Remote Access : 5             Concurrent Limit: 2000
  WebVPN : 0                    Cumulative Sessions: 12
  Email Proxy : 0
```

Related Commands

Command	Description
show vpn-sessiondb	Displays sessions with or without extended details, optionally filtered and sorted by criteria you specify.
show vpn-sessiondb ratio	Displays VPN session encryption or protocol ratios.

show xlate

To display information about the translation slots, use the **show xlate** command in privileged EXEC mode.

```
show xlate [global ip1[-ip2] [netmask mask]] [local ip1[-ip2] [netmask mask]]
          [gport port1[-port2]] [lport port1[-port2]] [interface if_name] [state state] [debug] [detail]
          [count]
```

Syntax Description

count	(Optional) Displays the translation count.
debug	(Optional) Displays xlate debug information.
detail	(Optional) Displays detail xlate information.
global <i>ip1[-ip2]</i>	(Optional) Displays the active translations by global IP address or range of addresses.
gport <i>port1[-port2]</i>	Displays the active translations by the global port or range of ports.
interface <i>if_name</i>	(Optional) Displays the active translations by interface.
local <i>ip1[-ip2]</i>	(Optional) Displays the active translations by local IP address or range of addresses.
lport <i>port1[-port2]</i>	Displays the active translations by local port or range of ports.
netmask <i>mask</i>	(Optional) Specifies the network mask to qualify the global or local IP addresses.
state <i>state</i>	(Optional) Displays the active translations by state. You can enter one or more of the following states: <ul style="list-style-type: none"> • static—specifies static translations. • portmap—specifies PAT global translations. • norandomseq—specifies a nat or static translation with the norandomseq setting. • identity—specifies nat 0 identity address translations. When specifying more than one state, separate the states with a space.

Defaults

No default behavior or values.

Command Modes

The following table shows the modes in which you can enter the command:

Command Mode	Firewall Mode		Security Context		
	Routed	Transparent	Single	Multiple	
				Context	System
Privileged EXEC	•	•	•	•	•

Command History

Release	Modification
1.1(1)	This command was introduced.

Usage Guidelines

The **show xlate** command displays the contents of the translation slots. The **show xlate detail** command displays the following information:

- **{ICMP|TCP|UDP} PAT from** *interface:real-address/real-port to interface:mapped-address/mapped-port* **flags translation-flags**
- **NAT from** *interface:real-address/real-port to interface:mapped-address/mapped-port* **flags translation-flags**

The translation flags are defined in [Table 29](#).

Table 30-4 Translation Flags

Flag	Description
s	Static translation slot.
d	Dump translation slot on next cleaning cycle.
r	Port map translation (Port Address Translation).
n	No randomization of TCP sequence number.
i	Inside address translation.
D	DNS A RR rewrite.
I	Identity translation.
a	NAT exception.

**Note**

When the **vpnclient** configuration is enabled and the inside host is sending out DNS requests, the **show xlate** command may list multiple xlates for a static translation.

Examples

The following is sample output from the **show xlate** command. It shows how translation slot information with three active PATs.

```
hostname# show xlate

3 in use, 3 most used
PAT Global 192.150.49.1(0) Local 10.1.1.15 ICMP id 340
PAT Global 192.150.49.1(1024) Local 10.1.1.15(1028)
PAT Global 192.150.49.1(1024) Local 10.1.1.15(516)
```

The following is sample output from the **show xlate detail** command. It shows the translation type and interface information with three active PATs.

The first entry is a TCP PAT for host port (10.1.1.15, 1025) on the inside network to host-port (192.150.49.1, 1024) on the outside network. The r flag indicates that the translation is a PAT. The i flag indicates that the translation applies to the inside address port.

The second entry is a UDP PAT for host port (10.1.1.15, 1028) on the inside network to host port (192.150.49.1, 1024) on the outside network. The r flag indicates that the translation is a PAT. The i flag indicates that the translation applies to the inside address port.

The third entry is an ICMP PAT for host-ICMP-id (10.1.1.15, 21505) on the inside network to host-ICMP-id (192.150.49.1, 0) on the outside network. The r flag indicates that the translation is a PAT. The i flag indicates that the translation applies to the inside address ICMP ID.

The inside address fields appear as source addresses on packets traversing from the more secure interface to the less secure interface. They appear as destination addresses on packets traversing from the less secure interface to the more secure interface.

```
hostname# show xlate detail
```

```
3 in use, 3 most used
Flags: D - DNS, d - dump, I - identity, i - inside, n - no random,
      r - portmap, s - static
TCP PAT from inside:10.1.1.15/1026 to outside:192.150.49.1/1024 flags ri
UDP PAT from inside:10.1.1.15/1028 to outside:192.150.49.1/1024 flags ri
ICMP PAT from inside:10.1.1.15/21505 to outside:192.150.49.1/0 flags ri
```

The following is sample output from the **show xlate** command. It shows two static translations. The first translation has one associated connection (called “nconns”), and the second translation has four associated connections.

```
hostname# show xlate
Global 209.165.201.10 Local 209.165.201.10 static nconns 1 econns 0
Global 209.165.201.30 Local 209.165.201.30 static nconns 4 econns 0
```

The following sample output from the **show xlate detail** command shows xlate bypass disabled (using the **no xlate bypass** command). The bolded display output shows that all 16 connections require identity NAT xlates even though NAT is not explicitly configured for any of the connections.

```
hostname# show xlate detail
Flags: D - DNS, d - dump, I - identity, i - inside, n - no random,
      o - outside, r - portmap, s - static
16 in use, 16 most used
NAT from inside:10.1.1.11 to outside:10.1.1.11 flags Ii
NAT from inside:10.1.1.12 to outside:10.1.1.12 flags Ii
NAT from inside:10.1.1.13 to outside:10.1.1.13 flags Ii
NAT from inside:10.1.1.14 to outside:10.1.1.14 flags Ii
NAT from inside:10.1.1.15 to outside:10.1.1.15 flags Ii
...
NAT from inside:10.1.1.25 to outside:10.1.1.25 flags Ii
NAT from inside:10.1.1.26 to outside:10.1.1.26 flags Ii.
```

The following sample output from the **show xlate detail** command shows xlate bypass enabled (using the **xlate bypass** command). The bolded display output shows that of the 16 connections active, none require xlates.

```
hostname# show xlate detail
Flags: D - DNS, d - dump, I - identity, i - inside, n - no random,
      o - outside, r - portmap, s - static
0 in use, 16 most used
```

The following sample output from the **show xlate detail** command shows xlate bypass enabled (using the **xlate bypass** command), but includes a static identity NAT configuration, which does require an xlate.

```
hostname(config)# static (inside,outside) 10.1.1.20 10.1.1.20 netmask 255.255.255.255
hostname(config)# show xlate detail
Flags: D - DNS, d - dump, I - identity, i - inside, n - no random,
      o - outside, r - portmap, s - static
1 in use, 16 most used
NAT from inside:10.1.1.20 to outside:10.1.1.20 flags Isi
```

Related Commands	Command	Description
	clear xlate	Clears current translation and connection information.
	show conn	Displays all active connections.
	show local-host	Displays the local host network information.
	show uauth	Displays the currently authenticated users.

