

show t

- show tcpstat, on page 2
- show tech-support, on page 5
- show telemetry, on page 9
- show terminal, on page 11
- show threat-detection memory, on page 13
- show threat-detection rate, on page 15
- show threat-detection scanning-threat, on page 18
- show threat-detection shun, on page 20
- show threat-detection statistics host, on page 22
- show threat-detection statistics port, on page 26
- show threat-detection statistics protocol, on page 29
- show threat-detection statistics top, on page 33
- show time-range, on page 42
- show tls-proxy, on page 43
- show track, on page 46
- show traffic, on page 47

show tcpstat

To display the status of the ASA TCP stack and the TCP connections that are terminated on the ASA (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.

Command Default 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 Con	Security Context			
	Routed	Transparent	Single	Multiple			
				Context	System		
Privileged EXEC	• Yes	• Yes	• Yes	• Yes	_		

Command History Release Modification

7.0(1) This command was added.

Usage Guidelines The **show tcpstat** command allows you to display the status of the TCP stack and TCP connections that are terminated on the ASA. The TCP statistics displayed are described in Table 28.

Table 1: 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.

Statistic	Description	
tcp user srch hash hit	Number of times a TCP user was found in the hash table when searching.	
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 lelete 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

This example shows how to display the status of the TCP stack on the ASA:

ciscoasa# 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

Г

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

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 [vsn] | file | no-config | no-config | performance]

Syntax Description	detail (Optional) Lists de	etailed information				
		(Optional) Writes the output of the command to a file. File system types include the following: disk0:, disk1:, ftp:, scp:, smb:, and tftp:.					
	no-config (ig (Optional) Excludes the output of the running configuration.					
	performance (Optional) Display	ys performance info	ormation.			
	,	Optional) Include s redirected to a f		000V Policy Age	ent technical suppo	ort information, which	
Command Default	No default behav						
Command Modes	-		odes in which you				
	Command Mode	e Firewall Mode	•	Security Cont	ext		
		Routed	Transparent	Single	Multiple		
					Context	System	
	Privileged EXEC	• Yes	• Yes	• Yes	_	• Yes	
Command History	Release	Modification					
	7.0(1)	The detail and file keywords were added.					
	7.2(1)	The output was enhanced to display more detailed information about processes that hog the CPU.					
	9.1(2)	The output was enhanced to include information from the show environment command.					
	9.1(3)	The output was enhanced to include information from the show memory detail , show memory top-usage , and show vlan commands.					
	9.2(1)	The output was enhanced to include information from the show memory detail, show cpu detail, show blocks queue history core-local, show asp drop, and show asp event dp-cp, show cpu usage history, and show traffic summary commands. The output from the show kernel cgroup-controller detail command was removed. The performance and vsn keywords were added.					
						vlan command.	

I

Release	Modification		
9.1(7)/9.3(1)	The show tech-support command now includes show resource usage count all 1 output, including information about xlates, conns, inspects, syslogs, and so on. This information is helpful for diagnosing performance issues.		
9.3(2)	The show route-summary command output was added to the show tech-support detail command.		
9.4(1)	The show tech-support command output includes the most recent 50 lines of generated syslogs. Note that you must enable the logging buffer command to enable these results to appear.		
9.1(7)/9.4(3)/9.5(2)	The show tech-support command now:		
	• Includes dir all-filesystems output—This output can be helpful in the following cases:		
	SSL VPN configuration: check if the required resources are on the ASA		
	• Crash: check for the date timestamp and presence of a crash file		
	• Removes the show kernel cgroup-controller detail output—This command output will remain in the output of show tech-support detail .		
9.7.(1)	The show tech-support command was updated for the following changes:		
	• The output was enhanced to include crashinfo statistics like thread name , registry content , timestamp , and traceback from the crashed thread. The output from Saved crash timestamp was removed.		
	• The output was enhanced to include show ipsec stats , show crypto ikev1 stats , and show crypto ikev2 stats commands. These commands are used to gather VPN statistics for troubleshooting purposes.		
	• The show tech-support command now includes show vm output. It determines the hypervisor on which the ASA virtual is currently running. This information is helpful for performing multiple automated checks on virtual platforms.		
	• The show tech-support command now includes show module detail command. This command provides information about multiple modules, which is helpful for troubleshooting various connectivity and status issues.		
9.12(1)	The output of show ipv6 interface, show aaa-server, and show fragment was added to the output of show tech-support .		
9.13(1)	The show flow-offload info detail, show flow-offload statistics , and show asp table socket commands were added.		
9.14(1)	The show ssl objects and show ssl errors was added to the output of show tech-support.		
	Also in 9.12(4)		

	Release	Modification				
	9.16(1)	The show tech-support command is enhanced for the following changes:				
		• showcontroller command output that includes DPDK log messages from the last boot.				
		• meminfo statistics about the virtual machine's (VM) free and used memory, shared memory, and buffers.				
		• cmdline statistics about the options and arguments passed during boot.				
	9.17(1)	The output from show access-list element-count and show asp rule-engine were added.				
		The output of the show tech-support command now includes the current DPDK memory pool statistics.				
	9.20(2)	The output of this command includes the output for statistics all,statistics events,statistics np-clients,statistics cp-clients , and statistics bulk-sync statistics.				
Usage Guidelines	diagnose prob	-support command lets you list information that technical support analysts need to help you lems. This command combines the output from the show commands that provide the most a technical support analyst.				
Examples		example shows how to save the show tech-support output to a file on disk0. The mely long, so if you send the results to your screen, it will take a long time to page sults.				
	ciscoasa# sh	ow tech-support file disk0:tech-support-output.txt				
	ciscocasa#					
	0100000000					

Do not use the **terminal pager 0** command while running any show commands, as it can lead to a huge CPU load. The CPU overload can result in ASA communication failure. Hence, use the default config terminal pager settings (25 lines).

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 ASA is active
	show memory	Displays a summary of the maximum physical memory and current free memory that is available to the operating system.

Command	Description
show perfmon	Displays information about the performance of the ASA
show processes	Displays a list of the processes that are running.
show running-config	Displays the configuration that is currently running on the ASA.
show xlate	Displays information about the translation slot.

show telemetry

To view the telemetry data, use the **show telemetry** command in privileged EXEC mode with one of the keywords. It displays the data in JSON format.

show telemetry [history | last-report | sample]

show running-config

Syntax Description	history (Optional) Shows the past 100 events related to telemetry configuration and activities.						
,	last-report (Optional) Shows the latest telemetry data sent to FXOS in JSON format.						
		,	e instantly generate				
ommand Default	No default behavi	or or values.					
ommand Modes	The following tab	le shows the n	nodes in which you	can enter the co	ommand:		
	Command Mode	Firewall Mod	e	Security Cor	ntext		
		Routed	Transparent	Single	Multiple		
					Context	System	
	Privileged EXEC	• Yes	• Yes	• Yes	_	• Yes	
ommand History	Release Modifica	ation					
	9.13(1) Commar	nd was introduc	ced.				
Jsage Guidelines			is enabled by defau emetry configuratio			t sent telemetry dat	
xamples	The following is s	ample output	from the show tele	metry history o	command:		
	17:38:03 PDT Ap 11:49:47 PDT Ap 11:48:47 PDT Ap status: enable 11:47:47 PDT Ap	r 30 2019: T r 30 2019: T r 29 2019: m r 29 2019: ms d. Telemetry r 29 2019: ms	story Pelemetry support Pelemetry support sgId 1. Telemetry gId 2. Telemetry config on the b gId 1. Telemetry config on the b	on the blade y support on request from lade: enabled request from	: disabled the chassis: di the chassis rece . Telemetry dat the chassis rece	eived. SSE connec a Sent eived. SSE connec	
Related Commands	Command	Descr	iption				
			- P				

Displays only the non-default telemetry settings that is configured.

I

Command	Description
show running-config all	Displays the configured telemetry settings.

show terminal

To show the terminal settings for the current CLI session, use the **show terminal** command in privileged EXEC mode.

show terminal

Syntax Description This command has no arguments or keywords.

Command Default 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	• Yes	• Yes	• Yes	• Yes	• Yes	

Command History Release Modification

7.0(1)	Command
	added.

Usage Guidelines Set the terminal properties with the following commands:

- terminal interactive—Enables help in the current CLI session when you enter ? at the CLI.
- terminal monitor-Allows syslog messages to show in the current CLI session.
- terminal width—Sets the width for displaying information during console sessions.

The show terminal command does not show the terminal pager setting.

Examples The following is sample output from the **show terminal** command:

```
ciscoasa# show terminal
Width = 80, no monitor
terminal interactive
```

Related Commands Command		Description
	clear configure terminal	Clears the terminal display width setting.
	pager	Sets the number of lines to display in a Telnet session before the "more" prompt. This command is saved to the configuration.

I

Command	Description
show running-config terminal	Displays the current terminal settings.
terminal interactive	Enables help in the current CLI session when you enter ? at the CLI.
terminal monitor	Allows syslog messages to show in the current CLI session.
terminal pager	Sets the number of lines to display in a Telnet session before the "more" prompt. This command is not saved to the configuration.
terminal width	Sets the width for displaying information during console sessions.

show threat-detection memory

To show the memory used by advanced threat detection statistics, which are enabled by the **threat-detection statistics** command, use the **show threat-detection memory** command in privileged EXEC mode.

	show threat-detection memory							
Syntax Description	This command has no arguments or keywords.							
Command Default	No default behavior or values.							
Command Modes	The following table shows the modes in which you can enter the command:							
	Command Mode	Firewall Mod	e		Security Context			
		Routed	Transpa	rent	Single	Multiple		
						Context	System	
	Privileged EXEC	• Yes	• Ye	S	• Yes		-	
Command History	Release Modific	ation						
	8.3(1) This cor	nmand was add	ed.					
	-	1					11.	
Usage Guidelines	memory usage so					nance. This comm	and lets you monitor	
Examples	The following is	sample output	from the sho	w threat	-detection me	mory command:		
	ciscoasa# show threat-detection memory							
	Cached chunks: CACHE TY	PE	BYTES U	SED				
	TD Host		70245					
	TD Port TD Protocol			724 476				
	TD ACE			728				
	TD Shared count			256				
			70265					
	Regular memory TD Port			BYTES USED 33824				
	TD Control bloc		162					
	5 1		== 195 70460					
Related Commands	Command		D	escriptio	n			
	show threat-det	ection statistic	s host S	Shows the host statistics.				

Command	Description
show threat-detection statistics port	Shows the port statistics.
show threat-detection statistics protocol	Shows the protocol statistics.
show threat-detection statistics top	Shows the top 10 statistics.
threat-detection statistics	Enables advanced threat-detection statistics.

show threat-detection rate

When you enable basic threat detection using the **threat-detection basic-threat** command, you can view statistics using the **show threat-detection rate** command in privileged EXEC mode.

show threat-detection rate [min-display-rate min_display_rate] [acl-drop | bad-packet-drop |
conn-limit-drop | dos-drop | fw-drop | icmp-drop | inspect-drop | interface-drop | scanning-threat |
syn-attack]

Syntax Description	acl-drop	(Optional) Shows the rate for dropped packets caused by denial by access lists.
	min-display-rate <i>min_display_rate</i>	(Optional) Limits the display to statistics that exceed the minimum display rate in events per second. You can set the <i>min_display_rate</i> between 0 and 2147483647.
	bad-packet-drop	(Optional) Shows the rate for dropped packets caused by denial by a bad packet format (such as invalid-ip-header or invalid-tcp-hdr-length).
	conn-limit-drop	(Optional) Shows the rate for dropped packets caused by the connection limits being exceeded (both system-wide resource limits, and limits set in the configuration).
	dos-drop	(Optional) Shows the rate for dropped packets caused by a detected DoS attack (such as an invalid SPI, Stateful Firewall check failure).
	fw-drop	(Optional) Shows the rate for dropped packets caused by basic firewall check failure. This option is a combined rate that includes all firewall-related packet drops in this command. It does not include non-firewall-related drops such as interface-drop , inspect-drop , and scanning-threat .
	icmp-drop	(Optional) Shows the rate for dropped packets caused by denial by suspicious ICMP packets detected.
	inspect-drop	(Optional) Shows the rate limit for dropped packets caused by packets failing application inspection.
	interface-drop	(Optional) Shows the rate limit for dropped packets caused by an interface overload.
	scanning-threat	(Optional) Shows the rate for dropped packets caused by a scanning attack detected. This option monitors scanning attacks; for example, the first TCP packet is not a SYN packet, or the TCP connection failed the 3-way handshake. Full scanning threat detection (see the threat-detection scanning-threat command) takes this scanning attack rate information and acts on it by classifying hosts as attackers and automatically shunning them, for example.
	syn-attack	(Optional) Shows the rate for dropped packets caused by an incomplete session, such as TCP SYN attack or UDP session with no return data attack.
Command Default	If you do not specify a	an event type, all events are shown.
Command Modes	The following table sh	nows the modes in which you can enter the command:

show t

	Command Mode	Firewall Mode	l	Security Con	text		
		Routed	Transparent	Single	Multiple		
					Context	System	
	Privileged EXEC	• Yes	• Yes	• Yes		_	
command History	Release Modifica	ation					
	8.0(2) This cor	nmand was add	ed.				
	8.2(1) The burs	st rate interval c	hanged from 1/	60th to 1/30th of th	e average rate.		
		at events, the se riggered every f		changed from a wa	arning to a notific	ation. Threat events	
Jsage Guidelines	The display outpu	t shows the foll	owing:				
	The average rate in events/sec over fixed time periods						
	• The current burst rate in events/sec over the last completed burst interval, which is 1/30th of the average rate interval or 10 seconds, whichever is larger						
	• The number of times the rates were exceeded						
	• The total number of events over the fixed time periods.						
	The ASA computes the event counts 30 times over the average rate interval; in other words, the ASA check the rate at the end of each burst period, for a total of 30 completed burst intervals. The unfinished burst interval presently occurring is not included in the average rate. For example, if the average rate interval is 10 minutes then the burst interval is 10 seconds. If the last burst interval was from 3:00:00 to 3:00:10, and you use the show command at 3:00:15, then the last 5 seconds are not included in the output.						
	The only exception to this rule is if the number of events in the unfinished burst interval already exceeds th number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 59 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.						
xamples	The following is sample output from the show threat-detection rate command:						
	ciscoasa# show		ion rate erage(eps)	Current(eps) Tr	igger	Total events	
	10-min ACL d 1-hour ACL d 1-hour SYN at 10-min Scann 1-hour Scann 1-hour Bad p 10-min Firew 1-hour Firew	rop: tck: ing: ing: kts: all:	0 0 5 0 106 76 0 76	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2 29 10 2 3 2	16 112 21438 193 384776 274690 22 274844	
	10-min DoS at 1-hour DoS at	tck:	0	0	0	6 42	

10-min Interface:	0	0	0	204
1-hour Interface:	88	0	0	318225

Related Commands

Command	Description
clear threat-detection rate	Clears basic threat detection statistics.
show running-config all threat-detection	Shows the threat detection configuration, including the default rate settings if you did not configure them individually.
threat-detection basic-threat	Enables basic threat detection.
threat-detection rate	Sets the threat detection rate limits per event type.
threat-detection scanning-threat	Enables scanning threat detection.

show threat-detection scanning-threat

If you enable scanning threat detection with the **threat-detection scanning-threat** command, then view the hosts that are categorized as attackers and targets using the **show threat-detection scanning-threat** command in privileged EXEC mode.

show threat-detection scanning-threat [attacker | target]

 Syntax Description
 attacker
 (Optional) Shows attacking host IP addresses.

 target
 (Optional) Shows targeted host IP addresses.

Command Default No default behavior or values.

Command Modes

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

Command Mo	Command Mode Firewall Mode		Security Con	Security Context			
	Routed	Routed Transparent		Multiple			
				Context	System		
Privileged EXEC	• Yes	• Yes	• Yes	—	—		

Command History Release Modification

8.0(2) This command was added.

- 8.0(4) The display was modified to include "& Subnet List" in the heading text.
- 8.2(2) For threat events, the severity level was changed from a warning to a notification. Threat events can be triggered every five minutes.
- 9.0 Interface information was added to the output.

Examples

The following is sample output from the **show threat-detection scanning-threat** command:

```
ciscoasa# show threat-detection scanning-threat
Latest Target Host & Subnet List:
    192.168.1.0 (121)
    192.168.1.249 (121)
Latest Attacker Host & Subnet List:
    192.168.10.234 (outside)
    192.168.10.0 (outside)
    192.168.10.2 (outside)
    192.168.10.3 (outside)
    192.168.10.4 (outside)
    192.168.10.5 (outside)
    192.168.10.6 (outside)
    192.168.10.7 (outside)
```

192.168.10.8 (outside) 192.168.10.9 (outside)

Related Commands

Command	Description
clear threat-detection shun	Releases hosts from being shunned.
show threat-detection shun	Shows the currently shunned hosts.
show threat-detection statistics protocol	Shows the protocol statistics.
show threat-detection statistics top	Shows the top 10 statistics.
threat-detection scanning-threat	Enables scanning threat detection.

show threat-detection shun

If you enable scanning threat detection with the **threat-detection scanning-threat** command, and you automatically shun attacking hosts, then view the currently shunned hosts using the **show threat-detection shun** command in privileged EXEC mode.

show threat-detection shun

Syntax Description This command has no arguments or keywords.

Command Default 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	• Yes	• Yes	• Yes	_		

Command History	Release Modification
	8.0(2) This command was added.
	8.2(2) For threat events, the severity level was changed from a warning to a notification. Threat events can be triggered every five minutes.
	9.0 Interface information was added to the output.
Usage Guidelines	To release a host from being shunned, use the clear threat-detection shun command.
Examples	The following is sample output from the show threat-detection shun command:

ciscoasa# **show threat-detection shun** Shunned Host List: (outside) src-ip=10.0.0.13 255.255.255.255 (inside) src-ip=10.0.0.13 255.255.255.255

Related Commands	Command	Description
	clear threat-detection shun	Releases hosts from being shunned.
	show threat-detection statistics host	Shows the host statistics.
	show threat-detection statistics protocol	Shows the protocol statistics.
	show threat-detection statistics top	Shows the top 10 statistics.

I

Command	Description
threat-detection scanning-threat	Enables scanning threat detection.

show threat-detection statistics host

After you enable threat statistics with the **threat-detection statistics host** command, view host statistics using the **show threat-detection statistics host** command in privileged EXEC mode. Threat detection statistics show both allowed and dropped traffic rates.

show threat-detection statistics [**min-display-rate** *min_display_rate*] **host** [*ip_address* [*mask*]]

Syntax Description	ip_address		(Optional) Show	(Optional) Shows statistics for a particular host.				
	mask		(Optional) Sets t	(Optional) Sets the subnet mask for the host IP address.				
	min-display-rate(Optional) Limits the display to statistics that exceed the minimum disp rate in events per second. You can set the min_display_rate between 0 and 2147483647.							
Command Default	No default behavior or values.							
Command Modes	The following tab	le shows the m	odes in which you	can enter the co	mmand:			
	Command Mode	Firewall Mod	e	Security Context				
		Routed	Transparent	Single	Multiple			
					Context	System		
	Privileged EXEC	• Yes	• Yes	• Yes	_			
Command History	Release Modification							
	8.0(2) This command was added.							
	8.2(1) The burst rate interval changed from 1/60th to 1/30th of the average rate.							
	8.2(2) For threat events, the severity level was changed from a warning to a notification can be triggered every five minutes.							
Usage Guidelines	The display outpu	it shows the fol	llowing:					
-	• The average rate in events/sec over fixed time periods.							
	• The current burst rate in events/sec over the last completed burst interval, which is 1/30th of the rate interval or 10 seconds, whichever is larger							
	• The number	of times the rat	tes were exceeded ((for dropped traf	fic statistics only)			
	• The total nur	mber of events	over the fixed time	e periods.				
	-			-		words, the ASA checks nfinished burst interval		

presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes, then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the **show** command at 3:00:25, then the last 5 seconds are not included in the output.

The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.

Examples

The following is sample output from the show threat-detection statistics host command:

ciscoasa# show threat-detection statistics host										
			Average(ep	s) C	urrent (eps)) T	'rigger	Total	events	
Host:10.0	0.0.1	: tot-ses:28	39235 act-se	s:22571	fw-drop:0	in	sp-drop:0 n	ull-ses:21	438 bad-ad	cc:0
1-hour	Sent	byte:	29	38	(C	0	10	580308	
8-hour	Sent	byte:	3	67	(C	0	10	580308	
24-hour	Sent	byte:	1	22	(С	0	10	580308	
1-hour	Sent	pkts:		28	(C	0		104043	
8-hour	Sent	pkts:		3	(C	0		104043	
24-hour	Sent	pkts:		1	(С	0		104043	
20-min	Sent	drop:		9	(C	1		10851	
1-hour	Sent	drop:		3	(C	1		10851	
1-hour	Recv	byte:	26	97	(С	0	9	712670	
8-hour	Recv	byte:	3	37	(С	0	9	712670	
24-hour	Recv	byte:	1	12	(C	0	9	712670	
1-hour	Recv	pkts:		29	(C	0		104846	
8-hour	Recv	pkts:		3	(С	0		104846	
24-hour	Recv	pkts:		1	(С	0		104846	
20-min	Recv	drop:		42	(C	3		50567	
1-hour	Recv	drop:		14	(С	1		50567	
Host:10.0	0.0.0	: tot-ses:1	act-ses:0 f	w-drop:	0 insp-drop	p:0	null-ses:0	bad-acc:0		
1-hour	Sent	byte:		0	(C	0		614	
8-hour	Sent	byte:		0	(C	0		614	
24-hour	Sent	byte:		0	(0	0		614	
1-hour	Sent	pkts:		0	(C	0		6	
8-hour	Sent	pkts:		0	(C	0		6	
24-hour	Sent	pkts:		0	(C	0		6	
20-min	Sent	drop:		0	(C	0		4	
1-hour	Sent	drop:		0	(C	0		4	
1-hour	Recv	byte:		0	(0	0		706	
8-hour	Recv	byte:		0	(С	0		706	
24-hour	Recv	byte:		0	(0	0		706	
1-hour	Recv	pkts:		0	(0	0		7	

Table 13-2 shows each field description.

Table 2: show threat-detection statistics host Fields

Field	Description
Host	Shows the host IP address.
tot-ses	Shows the total number of sessions for this host since it was added to the database.
act-ses	Shows the total number of active sessions that the host is currently involved in.

Field	Description
fw-drop	Shows the number of firewall drops. Firewall drops is a combined rate that includes all firewall-related packet drops tracked in basic threat detection, including access list denials, bad packets, exceeded connection limits, DoS attack packets, suspicious ICMP packets, TCP SYN attack packets, and UDP session with no return data attack packets. It does not include non-firewall-related drops such as interface overload, packets failed at application inspection, and scanning attack detected.
insp-drop	Shows the number of packets dropped because they failed application inspection.
null-ses	Shows the number of null sessions, which are TCP SYN sessions that did not complete within the 30-second timeout, and UDP sessions that did not have any data sent by its server 3 seconds after the session starts.
bad-acc	Shows the number of bad access attempts to host ports that are in a closed state. When a port is determined to be in a null session (see above), the port state of the host is set to HOST_PORT_CLOSE. Any client accessing the port of the host is immediately classified as a bad access without the need to wait for a timeout.
Average(eps)	Shows the average rate in events/sec over each time period.
	The security appliance stores the count at the end of each burst period, for a total of 30 completed burst intervals. The unfinished burst interval presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes, then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the show command at 3:00:25, then the last 5 seconds are not included in the output.
	The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.
Current(eps)	Shows the current burst rate in events/sec over the last completed burst interval, which is 1/30th of the average rate interval or 10 seconds, whichever is larger. For the example specified in the Average(eps) description, the current rate is the rate from 3:19:30 to 3:20:00
Trigger	Shows the number of times the dropped packet rate limits were exceeded. For valid traffic identified in the sent and received bytes and packets rows, this value is always 0, because there are no rate limits to trigger for valid traffic.
Total events	Shows the total number of events over each rate interval. The unfinished burst interval presently occurring is not included in the total events. The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.

Field	Description
20-min, 1-hour, 8-hour, and 24-hour	By default, there are three rate intervals shown. You can reduce the number of rate intervals using the threat-detection statistics host number-of-rate command. Because host statistics use a lot of memory, reducing the number of rate intervals from the default of 3 reduces the memory usage. If you set this keyword to 1, then only the shortest rate interval statistics are maintained. If you set the value to 2, then the two shortest intervals are maintained.
Sent byte	Shows the number of successful bytes sent from the host.
Sent pkts	Shows the number of successful packets sent from the host.
Sent drop	Shows the number of packets sent from the host that were dropped because they were part of a scanning attack.
Recv byte	Shows the number of successful bytes received by the host.
Recv pkts	Shows the number of successful packets received by the host.
Recv drop	Shows the number of packets received by the host that were dropped because they were part of a scanning attack.

Related Commands

Command	Description
threat-detection scanning-threat	Enables scanning threat detection.
show threat-detection statistics top	Shows the top 10 statistics.
show threat-detection statistics port	Shows the port statistics.
show threat-detection statistics protocol	Shows the protocol statistics.
threat-detection statistics	Enables threat statistics.

show threat-detection statistics port

After you enable threat statistics with the **threat-detection statistics port** command, view TCP and UDP port statistics using the **show threat-detection statistics port** command in privileged EXEC mode. Threat detection statistics show both allowed and dropped traffic rates.

show threat-detection statistics [**min-display-rate** *min-display-rate*] **port** [*start_port* [*-end_port*]]

Syntax Description	start_port [-end_	_port [-end_port] (Optional) Shows statistics for a par 0 and 65535.			particular port or r	ange of ports, between	
		min-display-rate(Optional) Limits the display to statistics that exceed the minimum display_ratemin_display_ratedisplay rate in events per second. You can set the min_display_rate between 0 and 2147483647.					
Command Default	No default behavi	ior or values.					
Command Modes	The following tab	ble shows the n	nodes in which you	can enter the co	mmand:		
	Command Mode	Firewall Mod	e	Security Con	text		
		Routed	Transparent	Single	Multiple		
					Context	System	
	Privileged EXEC	• Yes	• Yes	• Yes	—	—	
Command History	Release Modification						
	8.0(2) This command was added.						
	8.2(1) The burst rate interval changed from 1/60th to 1/30th of the average rate.						
		at events, the s riggered every		hanged from a w	arning to a notific	ation. Threat events	
Usage Guidelines	The display outpu	it shows the fo	llowing:				
	• The average rate in events/sec over fixed time periods.						
	• The current burst rate in events/sec over the last completed burst interval, which is 1/30th of the aver rate interval or 10 seconds, whichever is larger						
	• The number	of times the ra	tes were exceeded ((for dropped traf	fic statistics only)		
	• The total nur	nber of events	over the fixed time	e periods.			
	the rate at the end	of each burst p	eriod, for a total of 3	30 completed bur	st intervals. The u	vords, the ASA check nfinished burst interva	

presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes,

then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the **show** command at 3:00:25, then the last 5 seconds are not included in the output.

The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.

Examples

The following is sample output from the show threat-detection statistics port command:

			Average(eps)	Current(eps)	Trigger	Total events
80/HTTP:	tot-s	ses:310971	act-ses:22571			
1-hour	Sent	byte:	2939	0	0	10580922
8-hour	Sent	byte:	367	22043	0	10580922
24-hour	Sent	byte:	122	7347	0	10580922
1-hour	Sent	pkts:	28	0	0	104049
8-hour	Sent	pkts:	3	216	0	104049
24-hour	Sent	pkts:	1	72	0	104049
20-min	Sent	drop:	9	0	2	10855
1-hour	Sent	drop:	3	0	2	10855
1-hour	Recv	byte:	2698	0	0	9713376
8-hour	Recv	byte:	337	20236	0	9713376
24-hour	Recv	byte:	112	6745	0	9713376
1-hour	Recv	pkts:	29	0	0	104853
8-hour	Recv	pkts:	3	218	0	104853
24-hour	Recv	pkts:	1	72	0	104853
20-min	Recv	drop:	24	0	2	29134
1-hour	Recv	drop:	8	0	2	29134

ciscoasa# show threat-detection statistics port

Table 13-2 shows each field description.

Table 3: show threat-detection statistics port Fields

Field	Description		
Average(eps)	Shows the average rate in events/sec over each time period.		
	The security appliance stores the count at the end of each burst period, for a total of 30 completed burst intervals. The unfinished burst interval presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes, then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the show command at 3:00:25, then the last 5 seconds are not included in the output.		
	The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.		
Current(eps)	Shows the current burst rate in events/sec over the last completed burst interval, which is 1/30th of the average rate interval or 10 seconds, whichever is larger. For the example specified in the Average(eps) description, the current rate is the rate from 3:19:30 to 3:20:00		

Field	Description
Trigger	Shows the number of times the dropped packet rate limits were exceeded. For valid traffic identified in the sent and received bytes and packets rows, this value is always 0, because there are no rate limits to trigger for valid traffic.
Total events	Shows the total number of events over each rate interval. The unfinished burst interval presently occurring is not included in the total events. The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.
port_number /port_name	Shows the port number and name where the packet or byte was sent, received, or dropped.
tot-ses	Shows the total number of sessions for this port.
act-ses	Shows the total number of active sessions that the port is currently involved in.
20-min, 1-hour, 8-hour, and 24-hour	Shows statistics for these fixed rate intervals.
Sent byte	Shows the number of successful bytes sent from the port.
Sent pkts	Shows the number of successful packets sent from the port.
Sent drop	Shows the number of packets sent from the port that were dropped because they were part of a scanning attack.
Recv byte	Shows the number of successful bytes received by the port.
Recv pkts	Shows the number of successful packets received by the port.
Recv drop	Shows the number of packets received by the port that were dropped because they were part of a scanning attack.

Related Commands

Command	Description
threat-detection scanning-threat	Enables scanning threat detection.
show threat-detection statistics top	Shows the top 10 statistics.
show threat-detection statistics host	Shows the host statistics.
show threat-detection statistics protocol	Shows the protocol statistics.
threat-detection statistics	Enables threat statistics.

show threat-detection statistics protocol

After you enable threat statistics with the **threat-detection statistics protocol** command, view IP protocol statistics using the **show threat-detection statistics protocol** command in privileged EXEC mode. Threat detection statistics show both allowed and dropped traffic rates.

show threat-detection statistics [min-display-rate min_display_rate] protocol [protocol_number /
protocol_name]

Syntax Description	protocol_number	(Optional) Shows statistics for a specific protocol number, between 0 and 255.
	min-display-rate <i>min_display_rate</i>	(Optional) Limits the display to statistics that exceed the minimum display rate in events per second. You can set the <i>min_display_rate</i> between 0 and 2147483647.
	protocol_name	(Optional) Shows statistics for a specific protocol name:
		• ah
		• eigrp
		• esp
		• gre
		• icmp
		• igmp
		• igrp
		• ip
		• ipinip
		• ipsec
		• nos
		• ospf
		• рср
		• pim
		• pptp
		• snp
		• tcp
		• udp

Command Default 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	• Yes	• Yes	• Yes				
Command History	Release Modifica	ation						
	8.0(2) This cor	nmand was ad	ded.					
	8.2(1) The burs	st rate interval	changed from 1/60	th to 1/30th of th	e average rate.			
		at events, the s iggered every	•	hanged from a w	arning to a notifi	cation. Threat events		
Usage Guidelines	The display outpu	t shows the fo	llowing:					
	• The average rate in events/sec over fixed time periods.							
	• The current burst rate in events/sec over the last completed burst interval, which is 1/30th of the average rate interval or 10 seconds, whichever is larger							
	• The number of times the rates were exceeded (for dropped traffic statistics only)							
	• The total number of events over the fixed time periods.							
	The ASA computes the event counts 30 times over the average rate interval; in other words, the ASA checks the rate at the end of each burst period, for a total of 30 completed burst intervals. The unfinished burst interval presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes, then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the show command at 3:00:25, then the last 5 seconds are not included in the output.							
	The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.							
Examples	The following is sample output from the show threat-detection statistics protocol command:							
	ciscoasa# show threat-detection statistics protocol							
	ICMP: tot-ses:0 1-hour Sent b	act-ses:0	verage(eps) (Current(eps) Ti 0	0 0	Total events		
	8-hour Sent b	yte:	0	2	0	1000		
	24-hour Sent b	-	0	0	0	1000		
	1-hour Sent p 8-hour Sent p		0	0	0	10 10		
	24-hour Sent pkts: 0 0 0 10							

Table 13-2 shows each field description.

Field	Description
Average(eps)	Shows the average rate in events/sec over each time period.
	The security appliance stores the count at the end of each burst period, for a total of 30 completed burst intervals. The unfinished burst interval presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes, then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the show command at 3:00:25, then the last 5 seconds are not included in the output.
	The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.
Current(eps)	Shows the current burst rate in events/sec over the last completed burst interval, which is 1/30th of the average rate interval or 10 seconds, whichever is larger. For the example specified in the Average(eps) description, the current rate is the rate from 3:19:30 to 3:20:00
Trigger	Shows the number of times the dropped packet rate limits were exceeded. For valid traffic identified in the sent and received bytes and packets rows, this value is always 0, because there are no rate limits to trigger for valid traffic.
Total events	Shows the total number of events over each rate interval. The unfinished burst interval presently occurring is not included in the total events. The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.
protocol_number /protocol_name	Shows the protocol number and name where the packet or byte was sent, received, or dropped.
tot-ses	Not currently used.
act-ses	Not currently used.
20-min, 1-hour, 8-hour, and 24-hour	Shows statistics for these fixed rate intervals.
Sent byte	Shows the number of successful bytes sent from the protocol.
Sent pkts	Shows the number of successful packets sent from the protocol.
Sent drop	Shows the number of packets sent from the protocol that were dropped because they were part of a scanning attack.
Recv byte	Shows the number of successful bytes received by the protocol.

Table 4: show threat-detection statistics protocol Fields

I

Field	Description
Recv pkts	Shows the number of successful packets received by the protocol.
Recv drop	Shows the number of packets received by the protocol that were dropped because they were part of a scanning attack.

Related Commands

Command	Description
threat-detection scanning-threat	Enables scanning threat detection.
show threat-detection statistics top	Shows the top 10 statistics.
show threat-detection statistics port	Shows the port statistics.
show threat-detection statistics host	Shows the host statistics.
threat-detection statistics	Enables threat statistics.

show threat-detection statistics top

After you enable threat statistics with the **threat-detection statistics** command, view the top 10 statistics using the **show threat-detection statistics top** command in privileged EXEC mode. If you did not enable the threat detection statistics for a particular type, then you cannot view those statistics with this command. Threat detection statistics show both allowed and dropped traffic rates.

show threat-detection statistics [min-display-rate min_display_rate] top [[access-list | host |
port-protocol] [rate-1 | rate-2 | rate-3] | tcp-intercept [all] [detail] [long]]

Syntax Description	access-list	(Optional) Shows the top 10 ACEs that that match packets, including both permit and deny ACEs. Permitted and denied traffic are not differentiated in this display. If you enable basic threat detection using the threat-detection basic-threat command, you can track access list denies using the show threat-detection rate access-list command				
	all	(Optional) For TCP Intercept, shows the history data of all the traced servers.				
	detail	(Optional) For TCP Intercept, shows history sampling data.				
	host	(Optional) Shows the top 10 host statistics for each fixed time period.				
		Note Due to the threat detection algorithm, an interface used for a failover link or state link could appear as one of the top 10 hosts. This occurrence is more likely when you use one interface for both the failover and state link. This is expected behavior, and you can ignore this IP address in the display.				
	long	(Optional) Shows the statistical history in a long format, with the real IP address and the untranslated IP address of the server.				
	min-display-rate <i>min_display_rate</i>	(Optional) Limits the display to statistics that exceed the minimum display rate in events per second. You can set the <i>min_display_rate</i> between 0 and 2147483647.				
	port-protocol	(Optional) Shows the top 10 combined statistics of TCP/UDP port and IP protocol types. TCP (protocol 6) and UDP (protocol 17) are not included in the display for IP protocols; TCP and UDP ports are, however, included in the display for ports. If you only enable statistics for one of these types, port or protocol, then you will only view the enabled statistics.				
	rate-1	(Optional) Shows the statistics for the smallest fixed rate intervals available in the display. For example, if the display shows statistics for the last 1 hour, 8 hours, and 24 hours, then when you use the rate-1 keyword, the ASA shows only the 1 hour time interval.				
	rate-2	(Optional) Shows the statistics for the middle fixed rate intervals available in the display. For example, if the display shows statistics for the last 1 hour, 8 hours, and 24 hours, then when you use the rate-2 keyword, the ASA shows only the 8 hour time interval.				

	rate-3	display. Fo	then when you use	isplay shows sta	atistics for the last	ls available in the 1 hour, 8 hours, and ows only the 24 hour		
	tcp-intercept	Shows TC attack.	P Intercept statistic	s. The display in	cludes the top 10 p	protected servers under		
Command Default	If you do not spec	If you do not specify an event type, all events are shown.						
Command Modes	The following tab	ble shows the m	odes in which you	can enter the co	mmand:			
	Command Mode	Firewall Mode	8	Security Con	text			
		Routed	Transparent	Single	Multiple			
					Context	System		
	Privileged EXEC	• Yes	• Yes	• Yes	—	—		
Command History	Release Modific	Release Modification						
	8.0(2) This command was added.							
	8.0(4) The tcp-intercept keyword was added.							
	8.2(1) The burst rate interval changed from 1/60th to 1/30th of the average rate.							
	8.2(2) The long keyword was added for tcp-intercept . For threat events, the severity level was changed from a warning to a notification. Threat events can be triggered every five minutes.							
Usage Guidelines	The display output shows the following:							
	• The average rate in events/sec over fixed time periods.							
	• The current burst rate in events/sec over the last completed burst interval, which is 1/30th of the average rate interval or 10 seconds, whichever is larger							
	• The number of times the rates were exceeded (for dropped traffic statistics only)							
	• The total number of events over the fixed time periods.							
	The ASA computes the event counts 30 times over the average rate interval; in other words, the ASA checks the rate at the end of each burst period, for a total of 30 completed burst intervals. The unfinished burst interval presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes, then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the show command at 3:00:25, then the last 5 seconds are not included in the output.							
	number of events ASA calculates th	in the oldest but total events a	urst interval (#1 of 2	30) when calcul ete intervals, plu	ating the total even s the events so far	val already exceeds the nts. In that case, the in the unfinished burst		

Examples

The following is sample output from the **show threat-detection statistics top access-list** command:

ciscoasa# show threat-	detection statist	ics top access-l	list	
Top	Average(eps)	Current(eps)	Trigger	Total events
1-hour ACL hits:				
100/3[0]	173	0	0	623488
200/2[1]	43	0	0	156786
100/1[2]	43	0	0	156786
8-hour ACL hits:				
100/3[0]	21	1298	0	623488
200/2[1]	5	326	0	156786
100/1[2]	5	326	0	156786

Table 13-2 shows each field description.

Table 5: show threat-detection statistics top access-list Fields

Field	Description				
Тор	Shows the ranking of the ACE within the time period, from [0] (highest count) to [9] (lowest count). You might not have enough statistics for all 10 positions, so less then 10 ACEs might be listed.				
Average(eps)	Shows the average rate in events/sec over each time period.				
	The security appliance stores the count at the end of each burst period, for a total of 30 completed burst intervals. The unfinished burst interval presently occurring is not included in the average rate. For example, if the average rate interval is 20 minutes, then the burst interval is 20 seconds. If the last burst interval was from 3:00:00 to 3:00:20, and you use the show command at 3:00:25, then the last 5 seconds are not included in the output.				
	The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.				
Current(eps)	Shows the current burst rate in events/sec over the last completed burst interval, which is 1/30th of the average rate interval or 10 seconds, whichever is larger. For the example specified in the Average(eps) description, the current rate is the rate from 3:19:30 to 3:20:00.				
Trigger	This column is always 0, because there are no rate limits triggered by access list traffic; denied and permitted traffic are not differentiated in this display. If you enable basic threat detection using the threat-detection basic-threat command, you can track access list denies using the show threat-detection rate access-list command.				
Total events	Shows the total number of events over each rate interval. The unfinished burst interval presently occurring is not included in the total events. The only exception to this rule is if the number of events in the unfinished burst interval already exceeds the number of events in the oldest burst interval (#1 of 30) when calculating the total events. In that case, the ASA calculates the total events as the last 29 complete intervals, plus the events so far in the unfinished burst interval. This exception lets you monitor a large increase in events in real time.				

Field	Description
1-hour, 8-hour	Shows statistics for these fixed rate intervals.
acl_name /line_number	Shows the access list name and line number of the ACE that caused the denies.

The following is sample output from the **show threat-detection statistics top access-list rate-1** command:

ciscoasa# show threat-detection statistics top access-list rate-1									
Тор	Average(eps)	Current(eps)	Trigger	Total events					
1-hour ACL hits:									
100/3[0]	173	0	0	623488					
200/2[1]	43	0	0	156786					
100/1[2]	43	0	0	156786					

The following is sample output from the **show threat-detection statistics top port-protocol** command:

ciscoasa# show threat-detection statistics top port-protocol								
Top Name	Id	Average(eps)	Current(eps)	Trigger	Total events			
1-hour Recv byte:								
1 gopher	70	71	0	0	32345678			
2 btp-clnt/dhcp	68	68	0	0	27345678			
21	69	65	0	0	24345678			
4 Protocol-96		63	0	0	22345678			
5 Port-7314	7314	62	0	0	12845678			
6 BitTorrent/trc	6969	61	0	0	12645678			
7 Port-8191-6	5535	55	0	0	12345678			
8 SMTP	366	34	0	0	3345678			
9 IPinIP		30	0	0	2345678			
10 EIGRP	* 88	23	0	0	1345678			
1-hour Recv pkts	:							
8-hour Recv byte:								
8-hour Recv pkts:								
•••								
24-hour Recv byte:								
• • •								
···								
24-hour Recv pkts:								
• • •								
 Note: Id preceded by * denotes the Id is an IP protocol type								

Table 13-6 shows each field description.

Field	Description			
Тор	Shows the ranking of the port or protocol within the time period/type of statistic, from [0] (highest count) to [9] (lowest count). You might not ha enough statistics for all 10 positions, so less then 10 ports/protocols mig be listed.			
Name	Shows the port/protocol name.			
Id	Shows the port/protocol ID number. The asterisk (*) means the ID is an IP protocol number.			
Average(eps)	See the description in Table 13-2.			
Current(eps)	See the description in Table 13-2.			
Trigger	Shows the number of times the dropped packet rate limits were exceeded For valid traffic identified in the sent and received bytes and packets row this value is always 0, because there are no rate limits to trigger for valid traffic.			
Total events	See the description in Table 13-2.			
<i>Time_interval</i> Sent byte	Shows the number of successful bytes sent from the listed ports and protocols for each time period.			
<i>Time_interval</i> Sent packet	Shows the number of successful packets sent from the listed ports and protocols for each time period.			
Time_interval Sent drop	Shows the number of packets sent for each time period from the listed po and protocols that were dropped because they were part of a scanning attac			
Time_interval Recv byte	Shows the number of successful bytes received by the listed ports and protocols for each time period.			
<i>Time_interval</i> Recv packet	Shows the number of successful packets received by the listed ports and protocols for each time period.			
<i>Time_interval</i> Recv drop	Shows the number of packets received for each time period by the listed ports and protocols that were dropped because they were part of a scannin attack.			
port_number /port_name	Shows the port number and name where the packet or byte was sent, received, or dropped.			
protocol_number /protocol_name	Shows the protocol number and name where the packet or byte was sent, received, or dropped.			

 Table 6: show threat-detection statistics top port-protocol Fields

Examples

The following is sample output from the show threat-detection statistics top host command:

ciscoasa# show threat-detection statistics top host					
	Тор	Average(eps)	Current(eps)	Trigger	Total events
1-hour	Sent byte:				
	10.0.0.1[0]	2938	0	0	10580308
1-hour	Sent pkts:				
	10.0.0.1[0]	28	0	0	104043
20-min	Sent drop:				
	10.0.0.1[0]	9	0	1	10851
1-hour	Recv byte:				
	10.0.0.1[0]	2697	0	0	9712670
1-hour	Recv pkts:				
	10.0.0.1[0]	29	0	0	104846
20-min	Recv drop:			-	
	10.0.0.1[0]	42	0	3	50567
8-hour	Sent byte:	0.65	0		1050000
	10.0.0.1[0]	367	0	0	10580308
8-hour	Sent pkts:		0		
	10.0.0.1[0]	3	0	0	104043
l-hour	Sent drop:		0		10051
	10.0.0.1[0]	3	0	1	10851
8-hour	Recv byte:	0.05	0		0.54.0.65.0
	10.0.0.1[0]	337	0	0	9712670
8-hour	Recv pkts:		0		101010
4 1	10.0.0.1[0]	3	0	0	104846
1-nour	Recv drop:	1.4	0	-	
0.4.3	10.0.0.1[0]	14	0	1	50567
24-hour	Sent byte:	100	0	0	10500000
04 1	10.0.0.1[0]	122	0	0	10580308
24-nour	Sent pkts:	1	0	0	104042
04 1	10.0.0.1[0]	Ţ	0	0	104043
24-nour	Recv byte:	110	0	0	0710670
04 10 0000	10.0.0.1[0]	112	0	0	9712670
∠4-nour	Recv pkts:	1	0	0	104046
	10.0.0.1[0]	1	0	0	104846

ciscoasa# show threat-detection statistics top host

Table 13-7 shows each field description.

Table 7: show threat-detection statistics top host Fields

Field	Description	
Тор	Shows the ranking of the host within the time period/type of statistic, from [0] (highest count) to [9] (lowest count). You might not have enough statistics for all 10 positions, so less then 10 hosts might be listed.	
Average(eps)	See the description in Table 13-2.	
Current(eps)	See the description in Table 13-2.	
Trigger	See the description in Table 13-2.	
Total events	See the description in Table 13-2.	
<i>Time_interval</i> Sent byte	Shows the number of successful bytes sent to the listed hosts for each time period	
<i>Time_interval</i> Sent packet	Shows the number of successful packets sent to the listed hosts for each time period.	

L

Field	Description
Time_interval Sent drop	Shows the number of packets sent for each time period to the listed hosts that were dropped because they were part of a scanning attack.
<i>Time_interval</i> Recv byte	Shows the number of successful bytes received by the listed hosts for each time period.
<i>Time_interval</i> Recv packet	Shows the number of successful packets received by the listed ports and protocols for each time period.
Time_interval Recv drop	Shows the number of packets received for each time period by the listed ports and protocols that were dropped because they were part of a scanning attack.
host_ip_address	Shows the host IP address where the packet or byte was sent, received, or dropped.

Examples

The following is sample output from the **show threat-detection statistics top tcp-intercept** command:

ciscoasa# show threat-detection statistics top tcp-intercept Top 10 protected servers under attack (sorted by average rate) Monitoring window size: 30 mins Sampling interval: 30 secs <Rank> <Server IP:Port> <Interface> <Ave Rate> <Cur Rate> <Total> <Source IP (Last Attack Time)> 1 192.168.1.2:5000 inside 1249 9503 2249245 <various> Last: 10.0.0.3 (0 secs ago) 2 192.168.1.3:5000 inside 10 10 6080 10.0.0.200 (0 secs ago) 3 192.168.1.4:5000 inside 2 6 560 10.0.0.200 (59 secs ago) 4 192.168.1.5:5000 inside 1 5 560 10.0.0.200 (59 secs ago) 5 192.168.1.6:5000 inside 1 4 560 10.0.0.200 (59 secs ago) 192.168.1.7:5000 inside 0 3 560 10.0.0.200 (59 secs ago) 6 192.168.1.8:5000 inside 0 2 560 10.0.0.200 (59 secs ago) 7 8 192.168.1.9:5000 inside 0 1 560 10.0.0.200 (59 secs ago) 9 192.168.1.10:5000 inside 0 0 550 10.0.0.200 (2 mins ago) 10 192.168.1.11:5000 inside 0 0 550 10.0.0.200 (5 mins ago)

shows each field description.

Field	Description
Monitoring window size:	Shows the period of time over which the ASA samples data for statistics. The default is 30 minutes. You can change this setting using the threat-detection statistics tcp-intercept rate-interval command. The ASA samples data 30 times during this interval.
Sampling interval:	Shows the interval between samples. This value is always the rate interval divided by 30.
rank	Shows the ranking, 1 through 10, where 1 is the most attacked server, and 10 is the least attacked server.

Field	Description
server_ip:port	Shows the server IP address and the port on which it is being attacked.
interface	Shows the interface through which the server is being attacked.
avg_rate	Shows the average rate of attack, in attacks per second over the sampling period
current_rate	Shows the current attack rate, in attacks per second.
total	Shows the total number of attacks.
attacker_ip	Shows the attacker IP address.
(last_attack_time ago)	Shows when the last attack occurred.

Examples

The following is sample output from the **show threat-detection statistics top tcp-intercept long** command with the real source IP address in parentheses:

```
ciscoasa# show threat-detection statistics top tcp-intercept long
Top 10 protected servers under attack (sorted by average rate)
Monitoring window size: 30 mins Sampling interval: 30 secs
<Rank> <Server IP:Port (Real IP:Real Port)> <Interface> <Ave Rate> <Cur Rate> <Total> <Source
IP (Last Attack Time)>
                         _____
_____
1
    10.1.0.2:6025 (209.165.200.227:6025) inside 18 709 33911 10.0.0.201 (0 secs ago)
2
    10.1.0.2:6026 (209.165.200.227:6026) inside 18 709 33911 10.0.0.201 (0 secs ago)
3
    10.1.0.2:6027 (209.165.200.227:6027) inside 18 709 33911 10.0.0.201 (0 secs ago)
4
    10.1.0.2:6028 (209.165.200.227:6028) inside 18 709 33911 10.0.0.201 (0 secs ago)
5
    10.1.0.2:6029 (209.165.200.227:6029) inside 18 709 33911 10.0.0.201 (0 secs ago)
    10.1.0.2:6030 (209.165.200.227:6030) inside 18 709 33911 10.0.0.201 (0 secs ago)
6
    10.1.0.2:6031 (209.165.200.227:6031) inside 18 709 33911 10.0.0.201 (0 secs ago)
7
8
    10.1.0.2:6032 (209.165.200.227:6032) inside 18 709 33911 10.0.0.201 (0 secs ago)
9
    10.1.0.2:6033 (209.165.200.227:6033) inside 18 709 33911 10.0.0.201 (0 secs ago)
10
    10.1.0.2:6034 (209.165.200.227:6034) inside 18 709 33911 10.0.0.201 (0 secs ago)
```

The following is sample output from the **show threat-detection statistics top tcp-intercept detail** command:

```
ciscoasa# show threat-detection statistics top tcp-intercept detail
Top 10 Protected Servers under Attack (sorted by average rate)
Monitoring Window Size: 30 mins Sampling Interval: 30 secs
<Rank> <Server IP:Port> <Interface> <Ave Rate> <Cur Rate> <Total> <Source IP (Last Attack</pre>
Time)>
             _____
1
    192.168.1.2:5000 inside 1877 9502 3379276 <various> Last: 10.0.0.45 (0 secs ago)
    Sampling History (30 Samplings):
            95348
                      95337
                                95341
                                           95339
                                                     95338
                                                                95342
            95337
                      95348
                                95342
                                           95338
                                                     95339
                                                                95340
            95339
                      95337
                                95342
                                          95348
                                                     95338
                                                                95342
            95337
                      95339
                                95340
                                          95339
                                                     95347
                                                                95343
                                95342
            95337
                      95338
                                          95338
                                                     95337
                                                                95342
            95348
                      95338
                                95342
                                           95338
                                                     95337
                                                                95343
            95337
                      95349
                                95341
                                           95338
                                                     95337
                                                                95342
                      95339
                                95338
                                          95350
                                                     95339
                                                                95570
            95338
            96351
                      96351
                               96119
                                          95337
                                                     95349
                                                                95341
            95338
                      95337
                               95342
                                          95338
                                                    95338
                                                                95342
. . . . . .
```

Table 13-9 shows each field description.

Field	Description	
Monitoring window size:	Shows the period of time over which the ASA samples data for statistics. The default is 30 minutes. You can change this setting using the threat-detection statistics tcp-intercept rate-interval command. The AS samples data 30 times during this interval.	
Sampling interval:	Shows the interval between samples. This value is always the rate interval divided by 30.	
rank	Shows the ranking, 1 through 10, where 1 is the most attacked server, and 10 is the least attacked server.	
server_ip:port	Shows the server IP address and the port on which it is being attacked.	
interface	Shows the interface through which the server is being attacked.	
avg_rate	Shows the average rate of attack, in attacks per second over the rate interval set by the threat-detection statistics tcp-intercept rate-interval command (by default, the rate interval is 30 minutes). The ASA samples the data every 30 seconds over the rate interval.	
current_rate	Shows the current attack rate, in attacks per second.	
total	Shows the total number of attacks.	
<i>attacker_ip or <</i> various>Last: <i>attacker_ip</i>	t: Shows the attacker IP address. If there is more than one attacker, then " <various>" displays followed by the last attacker IP address.</various>	
(last_attack_time ago)	Shows when the last attack occurred.	
sampling data	Shows all 30 sampling data values, which show the number of attacks at each inerval.	

Related Commands

Command	Description
threat-detection scanning-threat	Enables scanning threat detection.
show threat-detection statistics host	Shows the host statistics.
show threat-detection statistics port	Shows the port statistics.
show threat-detection statistics protocol	Shows the protocol statistics.
threat-detection statistics	Enables threat statistics.

show time-range

To display the configuration of all time range objects, use the **show time-range** command in privileged EXEC mode.

show time-range [[name]]

Syntax Description *name* (Optional) Shows information for this time range object only.

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	• Yes	• Yes	• Yes	• Yes	—

Command History Release Modification

7.0(1) This command was added.

Examples

This example shows how to display the configuration of the time range objects. In this example, there is one object, which is named work-hours. Inactive means that the object is not being used.

ciscoasa# show time-range

time-range entry: work-hours (inactive) periodic weekdays 9:00 to 17:00

Related Commands

mands	Command	Description
	time-range	Configures time range objects.

show tls-proxy

To display TLS proxy and session information, use the **show tls-proxy** command in global configuration mode.

show tls-proxy [*tls_name* / [session [host *host_addr* / detail [cert-dump] | count | statistics]]]

Syntax Description	cert-dump	Dumps the	local dynamic certi	ificate. Output is	a hex dump of the	e LDC.			
	count	Shows only	Shows only the session counters. Shows detailed TLS proxy information including the cipher for each SSL leg and the LDC. Add the cert-dump keyword to get a hexadecimal dump of the local dynamic certificate (LDC).						
	detail [cert-dum]	LDC. Add							
		You can als	You can also use these keywords with the host option.						
	host host_addr	Specifies th associated.	Specifies the IPv4 or IPv6 address of a particular host to show the associated sessions associated.						
	session	Shows activ	Shows active TLS proxy sessions.						
	statistics	Shows stati	stics for monitoring	g and managing	TLS sessions.				
	tls_name	Name of th	Name of the TLS proxy to show.						
Command Default	No default behavi	ior or values.							
Command Modes	The following tab	le shows the m	e shows the modes in which you can enter the command:						
	Command Mode Firewall Mode Security Context								
		Routed	Transparent	Single	Multiple				
					Context	System			
	Privileged EXEC	• Yes	• Yes	• Yes	• Yes	• Yes			
Command History	Release Modifica	ation							
	8.0(2) This command was added.								
	8.3(1) The stat	istics keyword was added.							
Examples	The following is s	sample output	from the show tls-	oroxy command:					
	ciscoasa# show TLS-Proxy `prox Server proxy:		1, seq#1						

```
Trust-point: local_ccm
Client proxy:
Local dynamic certificate issuer: ldc_signer
Local dynamic certificate key-pair: phone_common
Cipher-suite <unconfigured>
Run-time proxies:
Proxy 0x448b468: Class-map: skinny_ssl, Inspect: skinny
Active sess 1, most sess 4, byte 3244
```

The following is sample output from the **show tls-proxy session** command:

ciscoasa# **show tls-proxy session** outside 133.9.0.211:51291 inside 195.168.2.200:2443 P:0x4491a60(proxy) S:0x482e790 byte 3388

The following is sample output from the show tls-proxy session detail command:

```
ciscoasa# show tls-proxy session detail
1 in use, 1 most used
outside 133.9.0.211:50433 inside 195.168.2.200:2443 P:0xcba60b60(proxy) S:0xcbc10748 byte
1831704
Client: State SSLOK Cipher AES128-SHA Ch 0xca55efc8 TxQSize 0 LastTxLeft 0 Flags 0x1
Server: State SSLOK Cipher AES128-SHA Ch 0xca55efa8 TxQSize 0 LastTxLeft 0 Flags 0x9
Local Dynamic Certificate
Status: Available
Certificate Serial Number: 29
Certificate Usage: General Purpose
 Public Key Type: RSA (1024 bits)
 Issuer Name:
 cn=TLS-Proxy-Signer
Subject Name:
 cn=SEP0002B9EB0AAD
 o=Cisco Systems Inc
 c=US
Validity Date:
 start date: 00:47:12 PDT Feb 27 2007
 end date: 00:47:12 PDT Feb 27 2008
Associated Trustpoints:
```

The following is sample output from the show tls-proxy session statistics command:

ciscoasa# show tls-proxy session stastics	
TLS Proxy Sessions (Established: 600)	
Mobility:	0
Per-Session Licensed TLS Proxy Sessions	
(Established: 222, License Limit: 3000)	
SIP:	2
SCCP:	20
DIAMETER:	200
Total TLS Proxy Sessions	
Established:	822
Platform Limit:	1000

Related	Commands
nonatou	oommanao

Command	Description
client	Defines a cipher suite and sets the local dynamic certificate issuer or keypair.
ctl-provider	Defines a CTL provider instance and enters provider configuration mode.
show running-config tls-proxy	Shows running configuration of all or specified TLS proxies.

Command	Description
tls-proxy	Defines a TLS proxy instance and sets the maximum sessions.

show track

To display information about object tracked by the security-level agreement (SLA) tracking process, use the **show track** command in user EXEC mode.

show track [*track-id*]

Syntax Description *track-id* A tracking entry object ID number, from 1 to 500.

Command Default If the *track-id* is not provided, then information about all tracking objects is displayed.

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	• Yes		• Yes			

Command History Release Modification

7.2(1) This command was added.

Examples

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

```
ciscoasa(config)# show track
Track 5
Response Time Reporter 124 reachability
Reachability is UP
2 changes, last change 03:41:16
Latest operation return code: OK
Tracked by:
STATIC-IP-ROUTING 0
```

Related Commands	Command	Description
	show running-config track	Displays the track rtr commands in the running configuration.
	track rtr	Creates a tracking entry to poll the SLA.

show traffic

To display interface transmit and receive activity, use the show traffic command in privileged EXEC mode.

	show traffic						
Syntax Description	This command has no arguments or keywords.						
Command Default	No default behavi	No default behavior or values.					
Command Modes	The following tab	The following table shows the modes in which you can enter the command:					
	Command Mode	Firewall Mode	9	Security Cont	text		
		Routed	Transparent	Single	Multiple		
					Context	System	
	Privileged EXEC	• Yes	• Yes	• Yes	• Yes	• Yes	
Command History	Release Modifica	ation					
	7.2(1) Output f	for the ASA 55:	50 was added.				
	9.3(1) Output f	for aggregated t	raffic on physical in	nterfaces was add	led.		
	9.5(2) SCTP and SCTP inspection were added to the detailed output.						
Usage Guidelines	The show traffic command lists the number of packets and bytes moving through each interface since the last show traffic command was entered or since the ASA came online. The number of seconds is the duratio the ASA 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 is the duration since that command was entered.					seconds is the duration entered since the last	
	For the ASA 5550, the show traffic command also shows the aggregated throughput per slot. Because the ASA 5550 requires traffic to be evenly distributed across slots for maximum throughput, this output helps you determine if the traffic is distributed evenly.						
	To show aggregated traffic on physical interfaces, you must first enter the sysopt traffic detailed-statistics command to turn on this feature.						
Examples	The following is s	sample output f	rom the show traf	fic command:			
	2048 packets 20 (in 102.080 se 2282 bytes/sec bytes	received (in ts/sec 2001 M 4056 bytes ecs): transm 20 pkts	20 p	transmitted (kts/sec 1998 b kets 233027 by 80 secs): /sec		5):	

The following example shows the added output for aggregated traffic on physical interfaces:

IP packet size distribution (values listed in percentages) Total Packets = 1278: 32 64 96 128 192 256 512 00.0 43.5 10.4 10.1 26.1 01.4 03.6 1024 1536 2048 4096 8192 9216 03.6 06.6 00.0 00.0 00.0 00.0

Protocol	Total	Conns	Packets	Bytes	Packets	Total
	Conns	/Sec	/Conn	/Pkt	/Sec	Packets

SCTP 0 0.0 0 0 0.0 0

SCTP-inspected	0	0.0	N/A	N/A	0.0	0
TCP	8	0.2	98	215	26.8	1279
TCP-inspected	0	0.0	N/A	N/A	0.0	0
UDP	3	0.0	0	90	0.0	2
UDP-inspected	5	0.0	1	189	0.0	56
ICMP	0	0.0	1	98	0.0	2
ESP	0	0.0	N/A	N/A	0.0	0
IP	0	0.0	N/A	N/A	0.0	0
Total:	16	0.2	22	207	26.8	1433

Last clearing of statistics: Never

Related Commands

Comm	nand	Description
clear traffi	c	Resets the counters for transmit and receive activity.