



# logging asdm through logout message Commands

# logging asdm

To send system log messages to the ASDM log buffer, use the **logging asdm** command in global configuration mode. To disable logging to the ASDM log buffer, use the **no** form of this command.

**logging asdm** [*logging\_list* | *level*]

**no logging asdm** [logging\_list | level]

Syntax Description	level	level to 3	3, then the see	vel for system lo curity appliance n specify either	generates s	ystem log mes	sages for levels		
	• 0 or emergencies—System unusable.								
		• 1 or alerts—Take immediate action.							
		• 2 or	critical—Cr	itical condition.					
		• 3 or	errors—Err	or.					
		• 4 or	warnings—	Warning.					
		• 5 or	notification	<b>s</b> —Normal but s	ignificant o	condition.			
		• <b>6</b> or	information	al—Information	l <b>.</b>				
		• 7 or	debugging_	-Debug message	s, log FTP	commands, an	d WWW URLs.		
	logging_list	-		identifies the me	-		-		
	For information about creating lists, see the <b>logging list</b> command.								
Command Modes	The following	table shows the n	nodes in whic		the comma				
						Multiple			
	Command Mo	de	Routed	Transparent	Single	Context	System		
	Global config	guration	•	•	•	•	•		
Command History	Release	Modification							
	7.0(1)	This comman	nd was introd	uced.					
Usage Guidelines	Before any me	essages are sent to t	the ASDM lo	g buffer, you mus	st enable lo	gging using the	e logging enable		
-	command.								

When the ASDM log buffer is full, security appliance deletes the oldest message to make room in the buffer for new messages. To control the number of system log messages retained in the ASDM log buffer, use the **logging asdm-buffer-size** command.

The ASDM log buffer is a different buffer than the log buffer enabled by the logging buffered command.

### Examples

This example shows how to enable logging and send to the ASDM log buffer messages of severity levels 0, 1, and 2. It also shows how to set the ASDM log buffer size to 200 messages.

```
hostname(config)# logging enable
hostname(config)# logging asdm 2
hostname(config) # logging asdm-buffer-size 200
hostname(config)# show logging
Syslog logging: enabled
   Facility: 20
   Timestamp logging: disabled
   Standby logging: disabled
   Deny Conn when Queue Full: disabled
    Console logging: disabled
   Monitor logging: disabled
    Buffer logging: disabled
   Trap logging: disabled
   History logging: disabled
   Device ID: disabled
   Mail logging: disabled
    ASDM logging: level critical, 48 messages logged
```

Related Commands	Command	DescriptionClears the ASDM log buffer of all messages it contains.					
	clear logging asdm						
	logging asdm-buffer-size	Specifies the number of ASDM messages retained in the ASDM log buffer					
	logging enable	Enables logging.					
	logging list	Creates a reusable list of message selection criteria.					
	show logging	Displays the enabled logging options.					
	show running-config logging	Displays the logging configuration.					

# logging asdm-buffer-size

To specify the number of system log messages retained in the ASDM log buffer, use the **logging asdm-buffer-size** command in global configuration mode. To reset the ASDM log buffer to its default size of 100 messages, use the **no** form of this command.

logging asdm-buffer-size num\_of\_msgs

no logging asdm-buffer-size num\_of\_msgs

Syntax Description	num_of_msgs	-	ies the number in the ASDM	of system log m log buffer.	essages that	at the security	appliance		
Defaults	The default A	SDM syslog buf	fer size is 100 f	messages.					
Command Modes	The following	table shows the	modes in whic	h you can enter	the comma	nd:			
			Firewall N	lode	Security (	ontext			
						Multiple			
	Command Mo	de	Routed	Transparent	Single	Context	System		
	Global config	uration	•	•	•	•			
Command History	Release	Modificatio	on						
	7.0(1)This command was introduced.								
Usage Guidelines	buffer for new kind of system	messages. To co 1 log messages r	ontrol whether l retained in the A	ASDM log buffe	SDM log bu r, use the <b>l</b> o	ffer is enabled ogging asdm c	or to control the		
Examples	0, 1, and 2. It is hostname(cont hostname(cont hostname(cont Syslog loggin Facility Timestamp Standby	also shows how fig)# logging fig)# logging fig)# logging a fig)# show log ng: enabled	to set the ASD enable asdm 2 asdm-buffer-s: ging abled led	M log buffer siz	-	-	f severity levels		
	Console 1	logging: disab logging: disab	led						

Buffer logging: disabled Trap logging: disabled History logging: disabled Device ID: disabled Mail logging: disabled ASDM logging: level critical, 48 messages logged

### **Related Commands**

Command	Description
clear logging asdm	Clears the ASDM log buffer of all messages it contains.
logging asdm	Enables logging to the ASDM log buffer.
logging enable	Enables logging.
show logging	Displays the enabled logging options.
show running-config logging	Displays the currently running logging configuration.

# logging buffered

To enable the security appliance to send system log messages to the log buffer, use the **logging buffered** command in global configuration mode. To disable logging to the log buffer, use the **no** form of this command.

**logging buffered** [logging\_list | level]

**no logging buffered** [logging\_list | level]

Syntax Description	level	level to 3	, then the sec	vel for system lo curity appliance n specify either	generates s	ystem log mes	sages for levels			
		or the name, a	is follows:							
	<ul> <li>0 or emergencies—System unusable.</li> <li>1 or alerts—Take immediate action.</li> </ul>									
					011.					
				itical condition.						
			errors—Erro							
			warnings—	e						
	• <b>5</b> or <b>notifications</b> —Normal but significant condition.									
	• <b>6</b> or <b>informational</b> —Information.									
	• 7 or <b>debugging</b> —Debug messages, log FTP commands, and WWW									
	logging_listSpecifies the list that identifies the messages to send to the log buffer. For information about creating lists, see the logging list command.									
Defaults	<ul><li>The defaults are as follows:</li><li>Logging to the buffer is disabled.</li></ul>									
	• Buffer size is 4 KB.									
Command Modes	The following tab	le shows the m	odes in whic	h vou can enter	the comma	nd:				
			Firewall M	lode	Security Context					
						Multiple				
	<b>Command Mode</b>		Routed	Transparent	Single	Context	System			
	Global configurat	tion	•	•	•	•	•			
Command History	Release	Modification								
	Preexisting	This comman	d was preexi	sting.						

# **Usage Guidelines** Before any messages are sent to the log buffer, you must enable logging using the **logging enable** command.

New messages append to the end of the buffer. When the buffer fills up, the security appliance clears it and continues adding messages to it. When the log buffer is full, the security appliance deletes the oldest message to make room in the buffer for new messages. You can have buffer contents automatically saved each time the contents of the buffer have "wrapped", which means that all the messages since the last save have been replaced by new messages. For more information, see the **logging flash-bufferwrap** and **logging ftp-bufferwrap** commands.

At any time, you can save the contents of the buffer to Flash memory. For more information, see the **logging savelog** command.

System log messages sent to the buffer can be viewed with the **show logging** command.

Examples

This example configures logging to the buffer for level 0 and level 1 events:

hostname(config)# logging buffered alerts
hostname(config)#

This example creates a list named notif-list with a maximum logging level of 7 and configures logging to the buffer for system log messages identified by the notif-list list.

hostname(config)# logging list notif-list level 7
hostname(config)# logging buffered notif-list
hostname(config)#

Related Commands	Command	Description
	clear logging buffer	Clears the log buffer of all system log messages that it contains.
	logging buffer-size	Specifies log buffer size.
	logging enable	Enables logging.
	logging flash-bufferwrap	Writes the log buffer to Flash memory when the log buffer is full.
	logging ftp-bufferwrap	Sends the log buffer to an FTP server when the log buffer is full.
	logging list	Creates a reusable list of message selection criteria.
	logging savelog	Saves the contents of the log buffer to Flash memory.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the currently running logging configuration.

# logging buffer-size

To specify the size of the log buffer, use the **logging buffer-size** command in global configuration mode. To reset the log buffer to its default size of 4 KB of memory, use the **no** form of this command.

logging buffer-size bytes

no logging buffer-size bytes

Syntax Description	<i>bytes</i> Sets the amount of memory used for the log buffer, in bytes. For example, if you specify 8192, the security appliance uses 8 KB of memory for the log buffer.							
Defaults	The log buffer size is	s 4 KB of memory.						
Command Modes	The following table s	shows the modes in whic	ch you can enter	the comma	and:			
		Firewall N	lode	Security (	Context			
				Single •	Multiple			
	Command Mode	Routed	Transparent		Context	System		
	Global configuration	1 •	•		•	•		
Jsage Guidelines	To see whether the se the <b>show running-co</b>	his command was introd ecurity appliance is using <b>onfig logging</b> command. ses a log buffer of 4 KB.	a log buffer of a					
	For more information about how the security appliance uses the buffer, see the <b>logging buffered</b> command.							
Examples	16 KB of memory for hostname(config)# hostname(config)#	logging enable		l specifies	that the securit	y appliance uso		

**Related Commands** 

Command	Description
clear logging buffer	Clears the log buffer of all system log messages it contains.
logging buffered	Enables logging to the log buffer.
logging enable	Enables logging.
logging flach bufferwran	Writes the log buffer to Flash memory when the log buffer is full.
flash-bufferwrap	
logging savelog	Saves the contents of the log buffer to Flash memory.
show logging	Displays the enabled logging options.
show running-config	Displays the currently running logging configuration.
logging	

# logging class

To configure the maximum logging level per logging destination for a message class, use the **logging class** command in global configuration mode. To remove a message class logging level configuration, use the **no** form of the command.

logging class class destination level [destination level . . .]

no logging class class

Syntax Description	class			class whose mass, see the "Usa						
	destination	determines	Specifies a logging destination for <i>class</i> . For the destination, the <i>level</i> determines the maximum logging level sent to <i>destination</i> . For valid values of <i>destination</i> , see the "Usage Guidelines" section that follows.							
	level	level to 3, t	then the sec	rel for system lo urity appliance g n specify either	generates sy	stem log mess	ages for levels			
		• 0 or er	mergencies	—System unusa	able.					
		• 1 or al	<b>lerts</b> —Take	immediate acti	on.					
		• 2 or cr	<b>ritical</b> —Cri	tical condition.						
	• <b>3</b> or <b>errors</b> —Error.									
	• 4 or warnings—Warning.									
	<ul> <li>5 or notifications—Normal but significant condition.</li> <li>6 or informational—Information.</li> </ul>									
Defaults		• 7 or do URLs.		-Debug message	es, log FTP	commands, an	d WWW			
	By default, the security appliance does not apply logging levels on a logging destination and message class basis. Instead, each enabled logging destination receives messages for all classes at the logging level determined by the logging list or level specified when you enabled the logging destination.									
Command Modes	The following table shows the modes in which you can enter the command:									
			Firewall M	ode	Security C	ontext				
			8							
						Multiple				
	Command Mode		Routed	Transparent	Single	Multiple Context	System			

Command History	Release	Modification					
	7.2(1)	This command was introduced.					
	8.0(2)	Added <b>eigrp</b> to valid class values.					
Jsage Guidelines	Valid values	for <i>class</i> include the following:					
	• auth—U	ser authentication.					
	• bridge—	-Transparent firewall.					
	• ca—PKI	certificate authority.					
	<ul> <li>config—</li> </ul>	Command interface.					
	Network	tensible Authentication Protocol (EAP). Logs the following types of events to support Admission Control: EAP session state changes, EAP status query events, and a mal dump of EAP header and packet contents.					
	• <b>eapoudp</b> —Extensible Authentication Protocol (EAP) over UDP. Logs EAPoUDP events to suppo Network Admission Control, and generates a complete record of EAPoUDP header and packet contents.						
	• <b>eigrp</b> —EIGRP routing.						
	• email—I	Email proxy.					
	• ha—Fail	• ha—Failover.					
	• <b>ids</b> —Intrusion detection system.						
	• ip—IP stack.						
	• <b>nac</b> —Network Admission Control. Logs the following types of events: initializations, exception li matches, ACS transactions, clientless authentications, default ACL applications, and revalidation						
	• <b>np</b> —Network processor.						
	• <b>ospf</b> —OSPF routing.						
	• rip—RIF	P routing.					
	• session-	–User session.					
	• snmp—SNMP.						
	• <b>sys</b> —Sys	stem.					
	• vpn—IK	E and IPSec.					
	• vpnc—V	/PN client.					
	• <b>vpnfo</b> —VPN failover.						
	• <b>vpnlb</b> —VPN load balancing.						
	Valid logging	g destinations are as follows:					
	• asdm—7	To learn about this destination, see the logging asdm command.					
	• buffered	—To learn about this destination, see the <b>logging buffered</b> command.					
	• console-	-To learn about this destination, see the <b>logging console</b> command.					
	• history	-To learn about this destination see the <b>logging history</b> command					

- history—To learn about this destination, see the logging history command.
- mail—To learn about this destination, see the logging mail command.

- monitor—To learn about this destination, see the logging monitor command.
- **trap**—To learn about this destination, see the **logging trap** command.

**Examples** This example specifies that, for failover-related messages, the maximum logging level for the ASDM log buffer is 2 and the maximum logging level for the system log buffer is 7:

hostname(config)# logging class ha asdm 2 buffered 7
hostname(config)#

# Commands Command Description logging enable Enables logging. show logging Displays the enabled logging options. show running-config Displays the logging-related portion of the running configuration.

# logging console

To enable the security appliance to display system log messages in console sessions, use the **logging console** command in global configuration mode. To disable the display of system log messages in console sessions, use the **no** form of this command.

logging console [logging\_list | level]

no logging console



We recommend that you do not use this command because it may cause many system log messages to be dropped due to buffer overflow. For more information, see the "Usage Guidelines" section that follows.

Syntax Description	level	level to 3,	Sets the maximum level for system log messages. For example, if you set the level to 3, then the security appliance generates system log messages for levels 3, 2, 1, and 0. You can specify either the number or the name, as follows:							
	• 0 or emergencies—System unusable.									
		• 1 or a	l <b>erts</b> —Take	e immediate acti	on.					
		• 2 or c	<b>ritical</b> —Cr	itical condition.						
		• 3 or e	errors—Erro	or.						
	<ul> <li>4 or warnings—Warning.</li> <li>5 or notifications—Normal but significant condition.</li> </ul>									
	• <b>6</b> or <b>informational</b> —Information.									
	• 7 or <b>debugging</b> —Debug messages, log FTP commands, and WWW URLs.									
	logging_list         Specifies the list that identifies the messages to send to the console session.           For information about creating lists, see the logging list command.									
Defaults	The security appli	ance does not d	isplay syste	m log messages	in console	sessions by de	fault.			
Command Modes	The following tab	le shows the mo	odes in whic	h you can enter	the comma	nd:				
			Firewall N	lode	Security C	ontext				
						Multiple				
	Command Mode		Routed	Transparent	Single	Context	System			
	Global configurat	ion	• •		•	•	•			

Command History	Release	Modification						
	Preexisting	This command was preexisting.						
Usage Guidelines	Before any mes command.	Before any messages are sent to the console, you must enable logging using the <b>logging enable</b> command.						
	Using the <b>logging console</b> command could significantly degrade system performance. Instead, use the <b>logging buffered</b> command to start logging and the <b>show logging</b> command to view the messages. To make viewing the most current messages easier, use the <b>clear logging buffer</b> command to clear the buffer.							
Examples	-	hows how to enable system log messages of levels 0, 1, 2, and 3 to appear in console						
		ig)# logging enable ig)# logging console errors ig)#						
Related Commands	Command	Description						
	logging enable	e Enables logging.						
	logging list	Creates a reusable list of message selection criteria.						

00 0	
logging list	Creates a reusable list of message selection criteria.
show logging	Displays the enabled logging options.
show running-config	Displays the logging-related portion of the running configuration.
logging	

### logging debug-trace

To redirect debugging messages to logs as system log message 711001 issued at severity level 7, use the **logging debug-trace** command in global configuration mode. To stop sending debugging messages to logs, use the **no** form of this command.

logging debug-trace

no logging debug-trace

**Syntax Description** This command has no arguments or keywords.

**Defaults** By default, the security appliance does not include debug output in system log messages.

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

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

Command History	Release	Modification
	7.0(1)	This command was introduced.

**Usage Guidelines** Debug messages are generated as severity level 7 messages. They appear in logs with the system log message number 711001, but do not appear in any monitoring session.

**Examples** This example shows how to enable logging, send log messages to the system log buffer, redirect debugging output to logs, and turn on debugging disk activity.

hostname(config)# logging enable hostname(config)# logging buffered hostname(config)# logging debug-trace hostname(config)# debug disk filesystem

An example of a debug message that could appear in the logs follows:

%PIX-7-711001: IFS: Read: fd 3, bytes 4096

**Related Commands** 

Command	Description
logging enable	Enables logging.
show logging	Displays the enabled logging options.
show running-config logging	Displays the logging-related portion of the running configuration.

# logging device-id

To configure the security appliance to include a device ID in non-EMBLEM-format system log messages, use the **logging device-id** command in global configuration mode. To disable the use of a device ID, use the **no** form of this command.

**logging device-id** {context-name | hostname | ipaddress interface\_name | string text}

**no logging device-id** {**context-name** | **hostname** | **ipaddress** *interface\_name* | **string** *text*}

Syntax Description	context-name	Specifies	the name of	the current cont	text as the o	device ID.			
	hostname	Specifies	the hostnam	e of the security	appliance	as the device ]	D.		
	<b>ipaddress</b> interface_name	you use the contain the	ne <b>ipaddress</b> ne IP address	D or the IP addre keyword, syster of the interface uses to send the	n log messa specified, 1	iges sent to an e regardless of w	external server hich interface		
	string text	16 charac		e ID the character ou cannot use wi			1		
		• &—a	ampersand						
		• '—sin	ngle quote						
		• "—de	ouble quote						
		• <—le	ess than						
		• >—g	reater than						
	question mark								
Defaults	No default devic	e ID is used in sys	stem log mess	sages.					
Command Modes	The following ta	able shows the mo	odes in whic	h you can enter	the comma	nd:			
			Firewall M	lode	Security C	ontext	t		
						Multiple			
	Command Mode	9	Routed	Transparent	Single	Context	System		
	Global configu	ration	•	•	•	•	•		
Command History	Release	Modification							
	Preexisting	This command							

**Usage Guidelines** If you use the **ipaddress** keyword, the device ID becomes the specified security appliance interface IP address, regardless of the interface from which the message is sent. This keyword provides a single, consistent device ID for all messages that are sent from the device.

**Examples** This example shows how to configure a host named secappl-1:

hostname(config)# logging device-id hostname hostname(config)# show logging Syslog logging: disabled Facility: 20 Timestamp logging: disabled Standby logging: disabled Console logging: disabled Monitor logging: disabled Buffer logging: level informational, 991 messages logged Trap logging: disabled History logging: disabled Device ID: hostname "secappl-1"

The host name appears at the beginning of system log messages, such as in the following message:

secappl-1 %PIX-5-111008: User 'enable\_15' executed the 'logging buffer-size 4096' command.

<b>Related Commands</b>	Command	Description
	logging enable	Enables logging.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the logging-related portion of the running configuration.

# logging emblem

L

To use the EMBLEM format for system log messages sent to destinations other than a syslog server, use the **logging emblem** command in global configuration mode. To disable the use of EMBLEM format, use the **no** form of this command.

#### logging emblem

no logging emblem

Syntax Description	This command has	no arguments or	keywords.
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**Defaults** By default, the security appliance does not use EMBLEM format for system log messages.

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

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

# Release Modification 7.0(1) This command was changed to be independent of the logging host command.

**Usage Guidelines** The **logging emblem** command lets you to enable EMBLEM-format logging for all logging destinations other than syslog servers. If you also enable the **logging timestamp** keyword, the messages with a time stamp are sent.

To enable EMBLEM-format logging for syslog servers, use the **format emblem** option with the **logging host** command.

# **Examples** This example shows how to enable logging and enable the use of EMBLEM-format for logging to all logging destinations except syslog servers:

hostname(config)# logging enable
hostname(config)# logging emblem
hostname(config)#

<b>Related Commands</b>	Command	Description
	logging enable	Enables logging.

Command	Description
show logging	Displays the enabled logging options.
show running-config logging	Displays the logging-related portion of the running configuration.

### logging enable

L

To enable logging for all configured output locations, use the **logging enable** command in global configuration mode. To disable logging, use the **no** form of this command.

logging enable

no logging enable

Syntax Description	This command has no arguments	s or keywords.
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**Defaults** Logging is disabled by default.

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

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

# Command HistoryReleaseModification7.0(1)This command was changed from the logging on command.

**Usage Guidelines** The **logging enable** command allows you to enable or disable sending system log messages to any of the supported logging destinations. You can stop all logging with the **no logging enable** command.

You can enable logging to individual logging destinations with the following commands:

- logging asdm
- logging buffered
- logging console
- logging history
- logging mail
- logging monitor
- logging trap

**Examples** 

This example shows how to enable logging. The output of the **show logging** command illustrates how each possible logging destination must be enabled separately.

hostname(config)# logging enable
hostname(config)# show logging
Syslog logging: enabled

Facility: 20 Timestamp logging: disabled Standby logging: disabled Deny Conn when Queue Full: disabled Console logging: disabled Monitor logging: disabled Buffer logging: disabled Trap logging: disabled History logging: disabled Device ID: disabled Mail logging: disabled ASDM logging: disabled

### **Related Commands**

S	Command	Description
	show logging	Displays the enabled logging options.
	show running-config	Displays the logging-related portion of the running configuration.
	logging	

# logging facility

To specify the logging facility used for messages sent to syslog servers, use the **logging facility** command in global configuration mode. To reset the logging facility to its default of 20, use the **no** form of this command.

logging facility facility

no logging facility

Syntax Description	<b>n</b> <i>facility</i> Specifies the logging facility; valid values are 16 through 23.						
Defaults	The default fac	ility is 20 (LOC.	AL4).				
Command Modes		table shows the n cription section:		h you can enter tl	he comman	d, with the exc	eptions noted i
			Firewall N	lode	Security Context		
				-	o	Multiple	
	Command Mod		Routed	Transparent	-	Context	System
	Global configu	iration	•	•	•	•	•
Jsage Guidelines		file messages ba LOCAL0) throug			he message	e. There are ei	ght possible
Examples		hows how to spe ssages. The outpunce.					
	hostname(conf Syslog loggin Facility: Timestamp Standby 1 Deny Conn Console 1 Monitor 1 Buffer lo Trap logg		ing oled ed ll: disabled ed ed d prs, facility		sages logg	ed	

History logging: disabled Device ID: 'inside' interface IP address "10.1.1.1" Mail logging: disabled ASDM logging: disabled

### Related Commands

Command	Description
logging enable	Enables logging.
logging host	Defines a syslog server.
logging trap	Enables logging to syslog servers.
show logging	Displays the enabled logging options.
show running-config logging	Displays the logging-related portion of the running configuration.

# logging flash-bufferwrap

To enable the security appliance to write the log buffer to Flash memory every time the buffer is full of messages that have never been saved, use the **logging flash-bufferwrap** command in global configuration mode. To disable writing of the log buffer to Flash memory, use the **no** form of this command.

logging flash-bufferwrap

no logging flash-bufferwrap

Syntax Description	This comman	d has no arguments	or keywords						
Defaults	The defaults a	are as follows:							
	• Logging to the buffer is disabled.								
	• Writing t	<ul> <li>Writing the log buffer to Flash memory is disabled.</li> </ul>							
	• Buffer siz	ze is 4 KB.							
	• Minimum	n free Flash memory	y is 3 MB.						
	• Maximur	n Flash memory all	ocation for b	uffer logging is	1 MB.				
Command Modes	The following	g table shows the mo	odes in which	h you can enter	the comma	nd:			
			Firewall M	ode	Security C	y Context			
						Multiple			
	Command Mode		Routed	Transparent Single	Single	Context	System		
	Global config	guration	•	•	•	—	—		
Command History	<b>Release</b> 7.0(1)	<b>Modification</b> This command	l was introdu	iced.					

The availability of Flash memory affects how the security appliance saves system log messages using the **logging flash-bufferwrap** command. For more information, see the **logging flash-maximum-allocation** and the **logging flash-minimum-free** commands.

**Examples** 

This example shows how to enable logging, enable the log buffer, and enable the security appliance to write the log buffer to Flash memory:

hostname(config)# logging enable hostname(config)# logging buffered hostname(config)# logging flash-bufferwrap hostname(config)#

<b>Related Commands</b>	Command	Description					
	clear logging buffer	Clears the log buffer of all system log messages it contains.					
	сору	Copies a file from one location to another, including to a TFTP or FTP server.					
	delete	Deletes a file from the disk partition, such as saved log files.					
	logging buffered	Enables logging to the log buffer. Specifies log buffer size.					
	logging buffer-size						
	logging enable	Enables logging.					
	logging flash-maximum- allocation	Specifies the maximum amount of Flash memory that can be used for writing log buffer contents.					
	logging flash-minimum- free	Specifies the minimum amount of Flash memory that must be available for the security appliance to permit writing of the log buffer to Flash memory.					
	show logging	Displays the enabled logging options.					

# logging flash-maximum-allocation

To specify the maximum amount of Flash memory that the security appliance uses to store log data, use the **logging flash-maximum-allocation** command in global configuration mode. To reset the maximum amount of Flash memory used for this purpose to its default size of 1 MB of Flash memory, use the **no** form of this command.

logging flash-maximum-allocation kbytes

no logging flash-maximum-allocation kbytes

Syntax Description	<i>kbytes</i> The largest amount of Flash memory, in kilobytes, that the security appliant can use to save log buffer data.								
Defaults	The default maximum Fla	sh memory allocati	on for log data i	s 1 MB.					
Command Modes	The following table shows	the modes in whic	h you can enter	the comma	ind:				
		Firewall N	lode	Security Context					
					Multiple				
	Command Mode	Routed	Transparent	Single	Context	System			
	Global configuration	•	•	•					
Command History		ommand was introd							
Usage Guidelines	This command determines flash-bufferwrap comma		nemory is availa	ble for the	logging savelo	g and logging			
	If a log file to be saved by log files to exceed the max command, the security ap file. If there are no files to new log file, the security a	kimum amount spec pliance deletes the delete or if, after a	cified by the <b>log</b> oldest log files t all old files are d	<b>ging flash-</b> o free suffi leleted, free	maximum-all cient memory	ocation for the new log			
	To see whether the security appliance has a maximum Flash memory allocation of a size different than the default size, use the <b>show running-config logging</b> command. If the <b>logging</b> <b>flash-maximum-allocation</b> command is not shown, then the security appliance uses a maximum of 1 MB for saved log buffer data. The memory allocated is used for both the <b>logging savelog</b> and <b>logging</b> <b>flash-bufferwrap</b> commands.								
	For more information about how the security appliance uses the log buffer, see the <b>logging buffered</b> command.								

### Examples

This example shows how to enable logging, enable the log buffer, enable the security appliance to write the log buffer to Flash memory, with the maximum amount of Flash memory used for writing log files set to approximately 1.2 MB of memory:

```
hostname(config)# logging enable
hostname(config)# logging buffered
hostname(config)# logging flash-bufferwrap
hostname(config)# logging flash-maximum-allocation 1200
hostname(config)#
```

### Related Commands

Command	Description					
clear logging buffer	Clears the log buffer of all system log messages it contains.					
logging buffered	Enables logging to the log buffer.					
logging enable	Enables logging.					
logging flash-bufferwrap	Writes the log buffer to Flash memory when the log buffer is full.					
logging flash-minimum- free	Specifies the minimum amount of Flash memory that must be available for the security appliance to permit writing of the log buffer to Flash memory.					
logging savelog	Saves the contents of the log buffer to Flash memory.					
show logging	Displays the enabled logging options.					
show running-config logging	Displays the currently running logging configuration.					

# logging flash-minimum-free

To specify the minimum amount of free Flash memory that must exist before the security appliance saves a new log file, use the **logging flash-minimum-free** command in global configuration mode. This command affects how much free Flash memory must exist before the security appliance saves log files created by the **logging savelog** and **logging flash-bufferwrap** commands. To reset the minimum required amount of free Flash memory to its default size of 3 MB, use the **no** form of this command.

logging flash-minimum-free kbytes

no logging flash-minimum-free kbytes

Syntax Description         kbytes         The minimum amount of Flash memory, in kilobytes, that must be available before the security appliance saves a new log file.						t be available			
Defaults	The default m	inimum free Fl	ash memory is 3	MB.					
Command Modes	The following	g table shows th	e modes in whic	h you can enter	the comma	nd:			
			Firewall M	ode	Security C	ontext			
						Multiple			
	Command Mode		Routed	Transparent	Single	Context	System		
	Global config	guration	•	•	•	•	—		
					·				
Command History	Release Modification								
	7.0(1)This command was introduced.								
Usage Guidelines			free command sp ommands must p			emory the <b>logg</b>	<b>ing savelog</b> and		
	Flash memory security appli free after savi	y to fall below the ance deletes the ing the new log	ging savelog or l he limit specified oldest log files file. If there are the limit, the se	d by the <b>logging</b> to ensure that th no files to delete	<b>flash-min</b> ne minimun e or if, afte	<b>imum-free</b> com n amount of ma r all old files a	emory remains are deleted, free		
Examples			nable logging, en ry, and specifies				opliance to write nemory must be		
	hostname(con hostname(con								

**Cisco Security Appliance Command Reference** 

hostname(config)#

### **Related Commands**

Command	Description					
clear logging buffer	Clears the log buffer of all system log messages it contains.					
logging buffered	Enables logging to the log buffer.					
logging enable	Enables logging.					
logging flash-bufferwrap	Writes the log buffer to Flash memory when the log buffer is full.					
logging flash-maximum- allocation	Specifies the maximum amount of Flash memory that can be used for writing log buffer contents.					
logging savelog	Saves the contents of the log buffer to Flash memory.					
show logging	Displays the enabled logging options.					
show running-config logging	Displays the currently running logging configuration.					

# logging from-address

To specify the sender e-mail address for system log messages sent by the security appliance, use the **logging from-address** command in global configuration mode. All sent system log messages appear to come from the address you specify. To remove the sender e-mail address, use the **no** form of this command.

logging from-address from-email-address

no logging from-address from-email-address

Syntax Description	<i>from-email-address</i> Source e-mail address, that is, the e-mail address that system log messages appear to come from (for example, cdb@example.com).								
Defaults	No default behavior	or values.							
Command Modes	The following table	shows the m	odes in whic	ch you can enter	the comma	ınd:			
			Firewall N	lode	Security Context				
						Multiple			
	Command Mode		Routed	Transparent	Single	Context	System		
	Global configuration	n	•	•	•	•	—		
				L					
Command History	Release Modification								
	7.0(1) This command was introduced.								
Usage Guidelines	Sending system log The address specifie						count.		
Examples	To enable logging ar following criteria:	nd set up the	security app	liance to send s	ystem log r	nessages by e-	mail, use the		
	• Send messages that are critical, alerts, or emergencies.								
	• Send messages using ciscosecurityappliance@example.com as the sender address.								
	• Send messages to admin@example.com.								
	• Send messages u	using SMTP,	the primary	servers pri-smtp	-host, and s	secondary serve	er sec-smtp-hos		
	Enter the following	commands:				-	-		
	<pre>hostname(config)# logging enable hostname(config)# logging mail critical hostname(config)# logging from-address ciscosecurityappliance@example.com</pre>								

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hostname(config)# logging recipient-address admin@example.com hostname(config)# smtp-server pri-smtp-host sec-smtp-host

Command	Description					
logging enable	Enables logging.					
logging mail	Enables the security appliance to send system log messages by e-mail and determines which messages are sent by e-mail.					
logging recipient-address	Specifies the e-mail address to which system log messages are sent.					
smtp-server	Configures an SMTP server.					
show logging	Displays the enabled logging options.					
show running-config logging	Displays the currently running logging configuration.					

# logging ftp-bufferwrap

To enable the security appliance to send the log buffer to an FTP server every time the buffer is full of messages that have never been saved, use the **logging ftp-bufferwrap** command in global configuration mode. To disable sending the log buffer to an FTP server, use the **no** form of this command.

### logging ftp-bufferwrap

Syntax Description	This command has no arguments or keywords.						
Defaults	The defaults are as follows:						
	• Logging to the buffer is disabled.						
	• Sending the log buffer to an FTP server is disabled.						
Command Modes	The following table shows t	he modes in whic	h you can enter	the comma	ınd:		
		<b>Firewall</b>	lode	Security Context			
				Single	Multiple	Multiple	
	Command Mode	Routed	Transparent		Context	System	
	Global configuration	•	•	•	•	—	
Command History	ReleaseModifica7.0(1)This com	tion imand was introd	uced.				
Usage Guidelines	When you enable <b>logging ftp-bufferwrap</b> , the security appliance sends log buffer data to the FTP server you specify with the <b>logging ftp-server</b> command. While the security appliance sends log data to the FTP server, it continues storing to the log buffer continues any new event messages.						
	For the security appliance to send log buffer contents to an FTP server, you must enable logging to the buffer; otherwise, the log buffer never has data to be written to Flash memory. To enable logging to the buffer, use the <b>logging buffered</b> command.						
	The security appliance creates log files with names that use a default time-stamp format, as follows:						
	LOG-YYYY-MM-DD-HHMMSS.TXT						

### Examples

This example shows how enable logging, enable the log buffer, specify an FTP server, and enable the security appliance to write the log buffer to an FTP server. This example specifies an FTP server whose host name is logserver-352. The server can be accessed with the username logsupervisor and password 1luvMy10gs. Log files are to be stored in the /syslogs directory.

```
hostname(config)# logging enable
hostname(config)# logging buffered
hostname(config)# logging ftp-server logserver-352 /syslogs logsupervisor 1luvMy10gs
hostname(config)# logging ftp-bufferwrap
hostname(config)#
```

### Related Commands

Command	Description
clear logging buffer	Clears the log buffer of all system log messages it contains.
logging buffered	Enables logging to the log buffer.
logging buffer-size	Specifies log buffer size.
logging enable	Enables logging.
logging ftp-server	Specifies FTP server parameters for use with the <b>logging ftp-bufferwrap</b> command.
show logging	Displays the enabled logging options.
show running-config logging	Displays the currently running logging configuration.

# logging ftp-server

To specify details about the FTP server that the security appliance sends log buffer data to when **logging ftp-bufferwrap** is enabled, use the **logging ftp-server** command in global configuration mode. To remove all details about an FTP server, use the **no** form of this command.

**logging ftp-server**  $ftp\_server$  path username [0 | 8] password

**no logging ftp-server** *ftp\_server path username* [0 | 8] *password* 

cription 0 (Optional) Specifies that an follow.	(Optional) Specifies that an unencrypted (clear text) user password will follow.				
8 (Optional) Specifies that an	(Optional) Specifies that an encrypted user password will follow.				
<i>ftp-server</i> External FTP server IP add	External FTP server IP address or hostname.				
<b>Note</b> If you specify a hos network.	je rie je na sje se si je je s				
password The password for the usern	The password for the username specified.				
· · ·	Directory path on the FTP server where the log buffer data is to be saved. This path is relative to the FTP root directory. For example:				
/security_appliances/sys					
<i>username</i> A username that is valid for	or logging in	n to the FT	P server.		
<b>lodes</b> The following table shows the modes in which you	u can enter	the comma	nd:		
lodes The following table shows the modes in which you	u can enter	1			
	u can enter	1			
Firewall Mode		1	ontext	System	
Command Mode Routed Tr	ransparent	Security C	ontext Multiple	System —	
Firewall Mode Command Mode	ransparent	Security C Single	ontext Multiple Context	System —	
Firewall Mode       Command Mode       Routed       Tr       Global configuration     •	ransparent •	Security C Single	ontext Multiple Context	System 	
Command Mode	Firewall Mode Routed T	Firewall Mode Routed Transparent	vs the modes in which you can enter the comman Firewall Mode Security C Routed Transparent Single	Routed Transparent Single Context	
Firewal Routed • lification s command was intr	I Mode T	I Mode Transparent • oduced.	l Mode Security C Transparent Single • •	I Mode Security Context Transparent Single Context • • • • •	

During bootup or upgrade of the security appliance, single-digit passwords and passwords starting with a digit followed by a whitespace are not supported. For example, 0 pass and 1 are invalid passwords.

**Examples** This example shows how to enable logging, enable the log buffer, specify an FTP server, and enable the security appliance to write the log buffer to an FTP server. This example specifies an FTP server whose hostname is logserver-352. The server can be accessed with the username logsupervisor and password 11uvMy10gs. Log files are to be stored in the /syslogs directory.

hostname(config)# logging enable hostname(config)# logging buffered hostname(config)# logging ftp-server logserver-352 /syslogs logsupervisor 1luvMy10gs hostname(config)# logging ftp-bufferwrap

The following example shows how to enter an encrypted password:

hostname(config)# logging ftp-server logserver /path1 user1 8 JPAGWzIIFVlheXv2I9nglfytOzHU

The following example shows how to enter an unencrypted (clear text) password:

hostname(config)# logging ftp-server logserver /path1 user1 0 pass1

Related Commands	Command	Description
	clear logging buffer	Clears the log buffer of all system log messages it contains.
	logging buffered	Enables logging to the log buffer.
	logging buffer-size	Specifies log buffer size.
	logging enable	Enables logging.
	logging ftp-bufferwrap	Sends the log buffer to an FTP server when the log buffer is full.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the currently running logging configuration.

## **logging history**

To enable SNMP logging and specify which messages are to be sent to SNMP servers, use the **logging history** command in global configuration mode. To disable SNMP logging, use the **no** form of this command.

**logging history** [logging\_list | level]

no logging history

Syntax Description	level	level to	o 3, then the sec	vel for system lo curity appliance n specify either	generates s	ystem log mes	sages for levels
		• 0	or <b>emergencie</b> s	s—System unusa	able.		
		• 1	or <b>alerts</b> —Take	e immediate acti	on.		
		• 2	or <b>critical</b> —Cr	itical condition.			
		• 3	or <b>errors</b> —Err	or.			
		• 4	or <b>warnings</b> —	Warning.			
		• 5	or <b>notification</b>	s—Normal but s	ignificant c	ondition.	
		• 6	or <b>information</b>	<b>al</b> —Information	ı.		
		• 7	or <b>debugging</b> —	-Debug message	s, log FTP	commands, an	d WWW URLs.
	logging_list	-		identifies the me ating lists, see the	-		
Command Modes	The following ta	ble shows the		-	1		
Command Modes	The following ta	ble shows the	modes in whic	-	the comma	ontext	
Command Modes		ble shows the	Firewall N	lode	Security C	ontext Multiple	
Command Modes	Command Mode		Firewall N Routed	lode Transparent	Security C Single	ontext Multiple Context	System
Command Modes			Firewall N	lode	Security C	ontext Multiple	System —
Command Modes	Command Mode		Firewall N Routed •	lode Transparent	Security C Single	ontext Multiple Context	System —
	<b>Command Mode</b> Global configur	ation Modificatio	Firewall N Routed •	lode Transparent •	Security C Single	ontext Multiple Context	System 

#### Examples

This example shows how to enable SNMP logging and specify that messages of levels 0, 1, 2, and 3 are sent to the SNMP server configured:

```
hostname(config)# logging enable
hostname(config)# snmp-server host infrastructure 10.2.3.7 trap community gam327
hostname(config)# snmp-server enable traps syslog
hostname(config)# logging history errors
hostname(config)#
```

#### Related Commands

mmands	Command	Description
	logging enable	Enables logging.
	logging list	Creates a reusable list of message selection criteria.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the logging-related portion of the running configuration.
	snmp-server	Specifies SNMP server details.

## logging host

To define a syslog server, use the **logging host** command in global configuration mode. To remove a syslog server definition, use the **no** form of this command.

logging host interface\_name syslog\_ip [tcp/port | udp/port] [format emblem] [secure] [permit-hostdown]

logging host interface\_name syslog\_ip

[no] logging host interface\_name syslog\_ip [tcp/port | udp/port] [format emblem] [secure]

[no] logging host interface\_name syslog\_ip

Syntax Description	format emblem	(Optional) Enables EMBLEM format logging for the syslog server.
	interface_name	Specifies the interface on which the syslog server resides.
	permit-hostdown	Allows the adaptive security appliance to continue TCP logging when the syslog server is down or unreachable.
	port	Indicates the port that the syslog server listens to for messages. Valid port values are 1025 through 65535 for either protocol.
	secure	Specifies that the connection to the remote logging host should use SSL/TLS. This option is valid only if the protocol selected is TCP.
		<b>Note</b> A secure logging connection can only be established with a SSL/TLS- capable syslog server. If a SSL/TLS connection cannot be established, all new connections will be denied. You may change this default behavior by entering the <b>logging permit-hostdown</b> command.
	syslog_ip	Specifies the IP address of the syslog server.
	tcp	Specifies that the adaptive security appliance should use TCP to send messages to the syslog server.
	udp	Specifies that the adaptive security appliance should use UDP to send messages to the syslog server.

#### Defaults

#### The default protocol is UDP.

The default port numbers are as follows:

- UDP—514
- TCP —1470

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

	Firewall M	lode	Security Co	ontext	
				Multiple	
Command Mode	Routed	Transparent	Single	Context	System
Global configuration	•	•	•	•	—

#### **Command History**

nd History	Release	Modification
	7.0	This command was introduced.
	8.0(2)	The <b>secure</b> keyword was added.

#### **Usage Guidelines**

The **logging host** *ip\_address* **format emblem** command allows you to enable EMBLEM-format logging for each syslog server. EMBLEM-format logging is available for UDP system log messages only. If you enable EMBLEM-format logging for a particular syslog server, then the messages are sent to that server. If you also enable the **logging timestamp** keyword, the messages with a time stamp are sent.

You can use multiple **logging host** commands to specify additional servers that would all receive the system log messages. However, you can only specify a server to receive either UDP or TCP system log messages, not both.

Note

When the **tcp** option is used in the **logging host** command, the adaptive security appliance will drop connections across the firewall if the syslog server is unreachable.

You can display only the *port* and *protocol* values that you previously entered by using the **show running-config logging** command and finding the command in the listing—TCP is listed as 6 and UDP is listed as 17. TCP ports work only with the syslog server. The *port* must be the same port on which the syslog server listens.

Note

An error message occurs if you try to use the **logging host** command and the **secure** keyword with UDP.

The PIX security appliance does not support the secure keyword.

#### Examples

This example shows how to send system log messages of severity levels 0, 1, 2, and 3 to a syslog server on the inside interface that uses the default protocol and port number.

```
hostname(config)# logging enable
hostname(config)# logging host inside 10.2.2.3
hostname(config)# logging trap errors
hostname(config)#
```

# Related Commands Command Description logging enable Enables logging. logging trap Enables logging to syslog servers. show logging Displays the enabled logging options. show running-config logging Displays the logging-related portion of the running configuration.

## logging list

To create a logging list to use in other commands to specify messages by various criteria (logging level, event class, and message IDs), use the **logging list** command in global configuration mode. To remove the list, use the **no** form of this command.

**logging list** *name* {**level** [**class** *event\_class*] | **message** *start\_id*[*-end\_id*]}

no logging list name

level       Sets the maximum level for system log messages. For example, if you set the level to 3, then the security appliance generates system log messages for let 3, 2, 1, and 0. You can specify either the number or the name, as follows: <ul> <li>0 or emergencies—System unusable.</li> <li>1 or alerts—Take immediate action.</li> <li>2 or critical—Critical condition.</li> <li>3 or errors—Error.</li> <li>4 or warnings—Warning.</li> <li>5 or notifications—Normal but significant condition.</li> <li>6 or informational—Information.</li> <li>7 or debugging—Debug messages, log FTP commands, and WWW UI</li> <li>message</li> <li>Specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the <i>Cisco ASA 5500 Serie System Log Messages</i>.</li> <li>name</li> <li>Sets the logging list name.</li> <li>Defaults</li> <li>No default behavior or values.</li> <li>The following table shows the modes in which you can enter the command:</li> <li>Firewall Mode</li> <li>Security Context</li> <li>Multiple</li> <li>Context</li> <li>System</li> <li>Vou can enter the single</li> <li>Context</li> <li>System</li> <li>Vou can enter the single</li> <li>Vou can enter the command:</li> <li>Vou can enter the single</li> <li>Vou can enter the single</li> <li>Vou ente</li></ul>			specified, only syste command. See the "				
• 1 or alerts—Take immediate action.         • 2 or critical—Critical condition.         • 3 or errors—Error.         • 4 or warnings—Warning.         • 5 or notifications—Normal but significant condition.         • 6 or informational—Information.         • 7 or debugging—Debug messages, log FTP commands, and WWW UI         message         start_id[-end_id]         Specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the Cisco ASA 5500 Serie System Log Messages.         name       Sets the logging list name.         Defaults       No default behavior or values.         Command Modes       The following table shows the modes in which you can enter the command:         Firewall Mode       Security Context         Global configuration       •         •       •		level level	level to 3, then the se	ecurity appliance	generates s	ystem log mess	sages for levels
• 2 or critical—Critical condition.         • 3 or errors—Error.         • 4 or warnings.—Warning.         • 5 or notifications—Normal but significant condition.         • 6 or informational—Information.         • 7 or debugging—Debug messages, log FTP commands, and WWW UI         message         start_id[-end_id]         Specified a message iD or range of IDs. To look up the default level of a message, use the show logging command or see the Cisco ASA 5500 Serie System Log Messages.         name         Sets the logging list name.         Defaults         No default behavior or values.         Command Modes         The following table shows the modes in which you can enter the command:			• 0 or emergenci	es—System unusa	able.		
<ul> <li>3 or errors—Error.</li> <li>4 or warnings—Warning.</li> <li>5 or notifications—Normal but significant condition.</li> <li>6 or informational—Information.</li> <li>7 or debugging—Debug messages, log FTP commands, and WWW UI</li> <li>message start_id[-end_id]</li> <li>Specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the <i>Cisco ASA 5500 Serie</i> <i>System Log Messages</i>.</li> <li>name</li> <li>Sets the logging list name.</li> </ul> Defaults No default behavior or values. The following table shows the modes in which you can enter the command:           image         Firewall Mode         Security Context           Command Mode         Firewall Mode         Image           Context         System			• 1 or <b>alerts</b> —Tal	ke immediate acti	on.		
<ul> <li>4 or warnings—Warning.</li> <li>5 or notifications—Normal but significant condition.</li> <li>6 or informational—Information.</li> <li>7 or debugging—Debug messages, log FTP commands, and WWW UI         message specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the <i>Cisco ASA 5500 Serie System Log Messages</i>.        name     Sets the logging list name.       Defaults     No default behavior or values.       The following table shows the modes in which you can enter the command:            <u>firewall Mode</u> <u>firewall Mode</u> <u>fortext         <u>Multiple         Command Mode</u> <u>Global configuration         </u> </u></li></ul>			• 2 or critical—C	Critical condition.			
<ul> <li>5 or notifications—Normal but significant condition.</li> <li>6 or informational—Information.</li> <li>7 or debugging—Debug messages, log FTP commands, and WWW UI         message start_id[-end_id]         Specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the <i>Cisco ASA 5500 Serie System Log Messages</i>.     </li> <li>         name Sets the logging list name.     </li> <li>         Defaults No default behavior or values.     </li> <li>         The following table shows the modes in which you can enter the command:     </li> <li> <u>Firewall Mode Security Context</u> <u>Multiple Context System Global configuration • • • • • • • • • • • • • • • • • • •</u></li></ul>			• 3 or <b>errors</b> —Er	ror.			
<ul> <li>6 or informational—Information.</li> <li>7 or debugging—Debug messages, log FTP commands, and WWW UI</li> <li>message start_id[-end_id]</li> <li>Specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the Cisco ASA 5500 Serie System Log Messages.</li> <li>name</li> <li>Sets the logging list name.</li> </ul> Defaults No default behavior or values. Command Modes The following table shows the modes in which you can enter the command: <u>Firewall Mode</u> Security Context           Quantity         Multiple           Command Mode         Routed           Global configuration         •			• 4 or warnings—	-Warning.			
• 7 or debugging—Debug messages, log FTP commands, and WWW UI         message start_id[-end_id]       Specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the Cisco ASA 5500 Serie System Log Messages.         name       Sets the logging list name.         Defaults       No default behavior or values.         The following table shows the modes in which you can enter the command: <ul> <li>Firewall Mode</li> <li>Gentration</li> <li>Image: Security Context</li> <li></li></ul>			• 5 or <b>notificatio</b>	<b>ns</b> —Normal but s	ignificant c	ondition.	
message start_id[-end_id]       Specified a message ID or range of IDs. To look up the default level of a message, use the show logging command or see the Cisco ASA 5500 Serie System Log Messages.         name       Sets the logging list name.         Defaults       No default behavior or values.         Command Modes       The following table shows the modes in which you can enter the command:         Firewall Mode       Security Context         Global configuration       Multiple         Global configuration       •       •       •			• 6 or informatio	<b>nal</b> —Informatior	1.		
start_id[-end_id]       message, use the show logging command or see the Cisco ASA 5500 Serie         System Log Messages.       name         No default behavior or values.       Sets the logging list name.         Command Modes       The following table shows the modes in which you can enter the command:         Firewall Mode       Security Context         Command Mode       Routed       Transparent         Global configuration       •       •       •			• 7 or <b>debugging</b> -	—Debug message	s, log FTP	commands, and	d WWW URLs.
Defaults       No default behavior or values.         Command Modes       The following table shows the modes in which you can enter the command:         Firewall Mode       Security Context         Multiple       Multiple         Command Mode       Routed       Transparent       Single       Context       System		_	message, use the she	ow logging comm			
Firewall Mode Security Context         Multiple         Command Mode       Routed       Transparent       Single       Context       System         Global configuration       •       •       •       •       •       •       •		name	Sets the logging list	name.			
Firewall Mode     Security Context       Firewall Mode     Security Context       Command Mode     Routed     Transparent     Single     Multiple       Global configuration     •     •     •     •     •							
Command Mode     Routed     Transparent     Single     Multiple       Global configuration     •     •     •     •     •     •	Defaults	No default behavior	or values.				
Command ModeRoutedTransparentSingleContextSystemGlobal configuration••••••		_	shows the modes in wh	-	1		
Global configuration • • • • •		_	shows the modes in wh	-	1	Context	
Command Wistom		The following table	shows the modes in wh	Mode	Security C	Context Multiple	System
Commond History Dologoo Medification		The following table	shows the modes in white shows the modes in the mod	Mode Transparent	Security C Single	Context Multiple Context	-
Command History Release Modification	Command Modes	The following table of table of the following table of tab	shows the modes in white shows the modes in	Mode Transparent	Security C Single	Context Multiple Context	-

#### Usage Guidelines

Logging commands that can use lists are the following:

- logging asdm
- logging buffered
- logging console
- logging history
- logging mail
- logging monitor
- logging trap

Possible values for the *event\_class* include the following:

- auth—User authentication.
- **bridge**—Transparent firewall.
- **ca**—PKI certificate authority.
- **config**—Command interface.
- **eap**—Extensible Authentication Protocol (EAP). Logs the following types of events to support Network Admission Control: EAP session state changes, EAP status query events, and a hexadecimal dump of EAP header and packet contents.
- **eapoudp**—Extensible Authentication Protocol (EAP) over UDP. Logs EAPoUDP events to support Network Admission Control, and generates a complete record of EAPoUDP header and packet contents.
- **email**—-Email proxy.
- **ha**—Failover.
- ids—Intrusion detection system.
- ip—IP stack.
- **nac**—Network Admission Control. Logs the following types of events: initializations, exception list matches, ACS transactions, clientless authentications, default ACL applications, and revalidations.
- **np**—Network processor.
- **ospf**—OSPF routing.
- rip—RIP routing.
- **session**—User session.
- snmp—SNMP.
- sys—System.
- vpn—IKE and IPSec.
- vpnc—VPN client.
- vpnfo—VPN failover.
- vpnlb—VPN load balancing.

Examples

This example shows how to use the logging list command:

```
hostname(config)# logging list my-list message 100100-100110
hostname(config)# logging list my-list level critical
```

hostname(config)# logging list my-list level warning class vpn hostname(config)# logging buffered my-list

The preceding example states that system log messages that match the criteria specified will be sent to the logging buffer. The criteria specified in this example are:

- System log message IDs that fall in the range of 100100 to 100110
- All system log messages with a critical level or higher (emergency, alert, or critical)
- All VPN class system log messages with a warning level or higher (emergency, alert, critical, error, or warning)

If a system log message satisfies any one of these conditions, it is logged to the buffer.



When you design list criteria, criteria can specify overlapping sets of messages. System log messages matching more than one set of criteria are logged normally.

Command	Description
logging enable	Enables logging.
show logging	Displays the enabled logging options.
show running-config logging	Displays the logging-related portion of the running configuration.

## logging mail

To enable the security appliance to send system log messages by e-mail and to determine which messages are sent by e-mail, use the **logging mail** command in global configuration mode. To disable e-mailing of system log messages, use the **no** form of this command.

logging mail [logging\_list | level]

**no logging mail** [logging\_list | level]

Syntax Description	level	level to 3,	then the sec	vel for system lo curity appliance g n specify either	generates sy	ystem log mess	ages for levels
		• 0 or e	emergencies	s—System unusa	able.		
		• 1 or a	alerts—Tak	e immediate acti	on.		
		• 2 or <b>c</b>	e <b>ritical</b> —Cr	itical condition.			
		• 3 or e	errors—Err	or.			
		• 4 or v	varnings—	Warning.			
		• 5 or <b>r</b>	otification	<b>s</b> —Normal but s	ignificant o	condition.	
		• <b>6</b> or <b>i</b>	nformation	al—Information	l.		
		• 7 or d URLs		–Debug message	es, log FTP	commands, an	d WWW
	logging_list	-		identifies the mo	-		-
Command Modes	The following t	able shows the mo	odes in whic	ch you can enter	the comma	und:	
			Firewall <b>N</b>	lode	Security (	Context	
						Multiple	1
	Command Mode	9	Routed	Transparent	Single	Context	System
	Global configu	ration	•	•	•	•	—
Command History	Release	Modification					
	Preexisting	This command	l was preexi	sting.			
Usage Guidelines	E-mailed system	n log messages ap	pear in the	subject line of th	e e-mails s	sent.	

#### Examples

To set up the security appliance to send system log messages by e-mail, use the following criteria:

- Send messages that are critical, alerts, or emergencies.
- Send messages using ciscosecurityappliance@example.com as the sender address.
- Send messages to admin@example.com.
- Send messages using SMTP, the primary servers pri-smtp-host, and secondary server sec-smtp-host.

Enter the following commands:

```
hostname(config)# logging mail critical
hostname(config)# logging from-address ciscosecurityappliance@example.com
hostname(config)# logging recipient-address admin@example.com
hostname(config)# smtp-server pri-smtp-host sec-smtp-host
```

<b>Related Commands</b>	Command	Description
	logging enable	Enables logging.
	logging from-address	Specifies the e-mail address from which e-mailed system log messages appear to come.
	logging list	Creates a reusable list of message selection criteria.
	logging recipient-address	Specifies the e-mail address to which e-mailed system log messages are sent.
	smtp-server	Configures an SMTP server.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the currently running logging configuration.

## logging message

**Syntax Description** 

To specify the logging level of a system log message, use the **logging message** command with the **level** keyword in global configuration mode. To reset the logging level of a message to its default level, use the **no** form of this command. To prevent the security appliance from generating a particular system log message, use the **no** form of the **logging message** command (without the **level** keyword) in global configuration mode. To let the security appliance generate a particular system log message, use the **logging message** command (without the **level** keyword). These two versions of the **logging message** command can be used in parallel. See the "Examples" section that follows.

Sets the maximum level for system log messages. For example, if you set the

logging message syslog\_id level level

no logging message syslog\_id level level

logging message syslog\_id

level level

no logging message syslog\_id

	<ul> <li>0 or emergencies—System unusable.</li> <li>1 or alerts—Take immediate action.</li> </ul>
	• 2 or <b>critical</b> —Critical condition.
	• 3 or <b>errors</b> —Error.
	• 4 or warnings—Warning.
	• 5 or <b>notifications</b> —Normal but significant condition.
	• <b>6</b> or <b>informational</b> —Information.
	• 7 or <b>debugging</b> —Debug messages, log FTP commands, and WWW URLs.
syslog_id	The ID of the system log message that you want to enable or disable or whose severity level you want to modify. To look up the default level of a message, use the <b>show logging</b> command or see the <i>Cisco ASA 5500 Series System Log Messages</i> .

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

logging message

			Firewall N	lode	Security C	ontext		
						Multiple		
	Command Mod	le	Routed	Transparent	Single	Context	System	
	Global configu	iration	•	•	•	•	•	
command History	Release	Modification	1					
	Preexisting	This comma	nd was preexi	sting.				
Jsage Guidelines		e logging messag	-		:			
	• To control whether a message is enabled or disabled.							
	• To control the severity level of a message.							
	• To control	the severity leve	1 of a message					
	You can use the	the severity leve e <b>show logging</b> c essage is enabled	command to d		el currently	assigned to a	message and	
Examples	You can use the whether the me The series of co	e show logging o	command to d	etermine the leve nple illustrate the	e use of the	logging mess	-	
Examples	You can use the whether the me The series of co control both wl hostname (conf	e <b>show logging</b> c essage is enabled commands in the f	command to d collowing exar is enabled an	etermine the leve nple illustrate the id the severity le 403503	e use of the	logging mess	-	
Examples	You can use the whether the me The series of co control both wl hostname(conf syslog 403503 hostname(conf	e show logging of essage is enabled ommands in the f hether a message ig)# show loggi	command to d collowing exar is enabled an ing message 4 l errors (ena	etermine the level nple illustrate the id the severity le 403503 abled) 3 level 1	e use of the	logging mess	-	
Examples	You can use the whether the me The series of co control both wl hostname(conf syslog 403503 hostname(conf hostname(conf	e show logging of essage is enabled ommands in the f hether a message ig)# show loggi : default-level ig)# logging me	Command to d Collowing exar is enabled an ing message 4 l errors (ena essage 40350; ing message 4	etermine the level nple illustrate the id the severity le 403503 abled) 3 level 1 403503	e use of the vel of the n	logging messa nessages:	-	
Examples	You can use the whether the me The series of co control both will hostname(conf syslog 403503 hostname(conf hostname(conf syslog 403503 hostname(conf hostname(conf hostname(conf	e show logging of essage is enabled ommands in the f hether a message ig)# show loggi : default-level ig)# logging me ig)# show loggi : default-level ig)# no logging ig)# show loggi	Command to d Collowing exar is enabled an ing message 4 l errors (ena essage 40350) ing message 40 l errors, cu g message 403	etermine the level nple illustrate the id the severity le 403503 abled) 3 level 1 403503 rrent-level ale 3503 403503	e use of the vel of the n erts (enab	logging messa nessages: led)	-	
Examples	You can use the whether the me The series of co control both will hostname(conf syslog 403503 hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf syslog 403503 hostname(conf hostname(conf hostname(conf syslog 403503 hostname(conf	e show logging of essage is enabled ommands in the f hether a message ig)# show loggi : default-level ig)# logging me ig)# show loggi ig)# show loggi ig)# show loggi ig)# show loggi ig)# show loggi ig)# show loggi ig)# show logging me	Command to d Collowing exar is enabled an ing message 4 l errors (ena essage 40350: ing message 40 l errors, cu: g message 40 l errors, cu: essage 40350:	etermine the leve nple illustrate the d the severity le 403503 abled) 3 level 1 403503 rrent-level ale 3503 403503 rrent-level ale	e use of the vel of the n erts (enab	logging messa nessages: led)	-	
Examples	You can use the whether the me The series of co control both will hostname(conf syslog 403503 hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf hostname(conf	e show logging of essage is enabled ommands in the f hether a message ig)# show loggi : default-level ig)# logging me ig)# show loggi : default-level ig)# no logging ig)# show loggi : default-level	Command to d Collowing exar is enabled an ing message 4 l errors (ena essage 40350: ing message 40 l errors, cu: g message 40 l errors, cu: essage 40350: ing message 40 l errors, cu:	etermine the level nple illustrate the d the severity le 403503 abled) 3 level 1 403503 rrent-level ale 3503 403503 rrent-level ale	e use of the vel of the n erts (enab erts (disa	logging messa nessages: led) bled)	-	
Examples	You can use the whether the me The series of co control both wi hostname (conf syslog 403503 hostname (conf hostname (conf hostname (conf hostname (conf syslog 403503 hostname (conf hostname (conf syslog 403503 hostname (conf hostname (conf syslog 403503 hostname (conf hostname (conf hostname (conf hostname (conf hostname (conf hostname (conf	e show logging of essage is enabled ommands in the f hether a message ig)# show loggi : default-level ig)# logging me ig)# show loggi : default-level ig)# show loggi : default-level ig)# show loggi : default-level ig)# show loggi ig)# show loggi	command to d command to d collowing example is enabled and ing message 4 l errors (enabled) ing message 4 l errors, cur g message 40350 ing message 4 l errors, cur essage 40350 ing message 4 l errors, cur g message 40350 ing message 40350 ing message 40350	etermine the level nple illustrate the id the severity le 403503 abled) 3 level 1 403503 rrent-level ale 3 403503 rrent-level ale 3 403503 rrent-level ale 3 403503	e use of the vel of the n erts (enab erts (disa	logging messa nessages: led) bled)	-	

lated Commands	Command	Description
	clear configure logging	Clears all logging configuration or message configuration only.
	logging enable	Enables logging.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the logging-related portion of the running configuration.

To enable the security appliance to display system log messages in SSH and Telnet sessions, use the **logging monitor** command in global configuration mode. To disable the display of system log messages in SSH and Telnet sessions, use the **no** form of this command.

**logging monitor** [*logging\_list* | *level*]

no logging monitor

Syntax Description	level	levelSets the maximum level for system log messages. For example, if you set th level to 3, then the security appliance generates system log messages for leve 3, 2, 1, and 0. You can specify either the number or the name, as follows:								
		• <b>0</b> or <b>emergencies</b> —System unusable.								
		• 1 or <b>alerts</b> —Take immediate action.								
		• 2 or <b>c</b>	e <b>ritical</b> —Cr	ritical condition.						
		• 3 or e	errors—Err	or.						
		• 4 or v	warnings—	Warning.						
		• 5 or <b>r</b>	notification	<b>s</b> —Normal but s	significant o	condition.				
		• 6 or <b>informational</b> —Information.								
		• 7 or <b>debugging</b> —Debug messages, log FTP commands, and WWW URLs.								
	logging_list	Specifies	the list that	identifies the m	essages to s	send to the SSI				
		session. F	for informat	ion about creatin	ng lists, see	the logging li	st command.			
Defaults	The security ap	session. F								
	_		lisplay syste	em log messages	in SSH and	d Telnet sessio				
	_	opliance does not d	lisplay syste	em log messages ch you can enter	in SSH and	d Telnet sessio				
Defaults Command Modes	_	opliance does not d	lisplay syste odes in whic	em log messages ch you can enter	in SSH and the comma	d Telnet sessio				
	_	opliance does not d table shows the mo	lisplay syste odes in whic	em log messages ch you can enter	in SSH and the comma	d Telnet sessio and: <b>Context</b>				
Defaults Command Modes	The following	opliance does not d table shows the mo	lisplay syste odes in whic Firewall N	em log messages ch you can enter <b>Node</b>	in SSH and the comma	d Telnet sessio and: Context Multiple	ns by default.			
	The following	opliance does not d table shows the mo	lisplay syste odes in whic Firewall N Routed	em log messages ch you can enter Aode Transparent	in SSH and the comma Security ( Single	d Telnet sessio and: Context Multiple Context	ns by default.			

## **Usage Guidelines** The **logging monitor** command enables system log messages for all sessions in the current context; however, in each session, the **terminal** command controls whether system log messages appear in that session.

#### Examples

This example shows how to enable the display of system log messages in console sessions. The use of the **errors** keyword indicates that messages of levels 0, 1, 2, and 3 should display in SSH and Telnet sessions. The **terminal** command enables the messages to appear in the current session.

hostname(config)# logging enable hostname(config)# logging monitor errors hostname(config)# terminal monitor hostname(config)#

Related Commands	Command	Description
	logging enable	Enables logging.
	logging list	Creates a reusable list of message selection criteria.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the logging-related portion of the running configuration.
	terminal	Sets terminal line parameters.

logging permit-hostdown

	Command Mode					Multiple			
			Routed	Transparent	Single	Context	System		
	Global config	guration	•	•	•	•			
Command History	Release	Modification							
	7.0(1)								
Usage Guidelines	security appli	ng TCP as the logg ance denies new ne ch the syslog server	twork access	s sessions as a se	curity mea	sure if the secu	rity appliance is		
Examples	appliance per	g example makes th mits new sessions. <b>ning-config loggin</b> ss sessions.	When the <b>lo</b>	gging permit-ho	ostdown co	mmand includ	es in its output		
	hostname(cor logging enak logging trap	) errors : infrastructure 1 hit-hostdown	ng-config 1	ogging					

To make the status of a TCP-based syslog server irrelevant to new user sessions, use the logging permit-hostdown command in global configuration mode. To cause the security appliance to deny new user sessions when a TCP-based syslog server is unavailable, use the **no** form of this command.

#### logging permit-hostdown

no logging permit-hostdown

Syntax Description	This comman	d has no argumen	ts or keyword	s.			
Defaults		you have enabled s not allow new n					-
Command Modes	The following	g table shows the r	modes in whic	ch you can enter	the comma	nd:	
			Firewall N	lode	Security C	ontext	
						Multiple	
	Command Mo	de	Routed	Transparent	Single	Context	System
	Global config	guration	•	•	•	•	
Command History	<b>Release</b> 7.0(1)	<b>Modification</b> This comma	<b>1</b> nd was introd	uced.			
Usage Guidelines	security appli	ng TCP as the log ance denies new n th the syslog serve	etwork access	s sessions as a se	curity meas	sure if the secu	irity appliance
Examples	The following example makes the status of TCP-based syslog servers irrelevant to whether the securi appliance permits new sessions. When the <b>logging permit-hostdown</b> command includes in its output the <b>show running-config logging</b> command, the status of TCP-based syslog servers is irrelevant to ne network access sessions.						

#### **Related Commands**

Command	Description
logging enable	Enables logging.
logging host	Defines a syslog server.
logging trap	Enables logging to syslog servers.
show logging	Displays the enabled logging options.
show running-config logging	Displays the logging-related portion of the running configuration.

## logging queue

To specify how many system log messages the security appliance may hold in its queue before processing them according to the logging configuration, use the **logging queue** command in global configuration mode. To reset the logging queue size to the default of 512 messages, use the **no** form of this command.

logging queue queue\_size

no logging queue queue\_size

Syntax Description	queue_size	message dependir will be tl platform	The number of syslog messages permitted in the queue used for storing syslog messages before processing them. Valid values are from 0 to 8192 messages, depending on the platform type. If the logging queue is set to zero, the queue will be the maximum configurable size (8192 messages), depending on the platform. On the ASA-5505, the maximum queue size is 1024, On the ASA-5510, it is 2048, and on all other platforms, it is 8192.					
Defaults	The default que	eue size is 512 me	essages.					
Command Modes	The following t	able shows the m	nodes in whic	h you can enter	the comma	nd:		
			Firewall N	lode	Security C	ontext		
						Multiple		
	Command Mode		Routed	Transparent	Single	Context	System	
	Global configuration		•	•	•	•	•	
Command History	Release Modification							
	Preexisting This command was preexisting.							
Usage Guidelines Examples	ASA-5505, the 8192 . This example s commands:	so heavy that the maximum queue hows how to disp	size is 1024. play the outpu	On the ASA-55	10, it is 204	48. On all othe	er platforms, it is	
	hostname(conf Logging Queue	ig)# <b>logging qu</b> ig)# <b>show loggi</b> : length limit : on queue, 3513	<b>ng queue</b> Unlimited	on queue, 1 msg	g discard.			

In this example, the **logging queue** command is set to 0, which means that the queue is set to the maximum of 8192. The system log messages in the queue are processed by the security appliance in the manner dictated by the logging configuration, such as sending system log messages to mail recipients, saving them to Flash memory, and so forth.

The output of this example **show logging queue** command shows that 5 messages are queued, 3513 messages was the largest number of messages in the queue at one time since the security appliance was last booted, and that 1 message was discarded. Even though the queue was set for unlimited, the messages was discarded because no block memory was available to add the message to the queue.

<b>Related Commands</b>	Command	Description				
	logging enable	Enables logging.				
	show logging	Displays the enabled logging options.				
	show running-config logging	Displays the logging-related portion of the running configuration.				

## logging rate-limit

To limit the rate at which system log messages are generated, use the **logging rate-limit** command in privileged EXEC mode. To disable rate limiting, use the **no** form of this command in privileged EXEC mode.

**logging rate-limit** {**unlimited** | {*num* [*interval*]}} **message** *syslog\_id* | **level** *severity\_level* 

[no] logging rate-limit [unlimited | {num [interval]}} message syslog\_id ] level severity\_level

Syntax Description	interval	(Optional) Time int	erval (in second	s) to use fo	or measuring th	e rate at which	
Gyntax Desemption	inici vui	· ·	messages are generated. The valid range of values for <i>interval</i> is 0 through				
	level severity_level	severity level. All s	Applies the set rate limits on all system log messages that belong to a certain severity level. All system log messages at a specified severity level are rate-limited individually. The valid range for <i>severity_level</i> is 1 through 7.				
	message	Suppresses reportin	ng of this system	log messa	ige.		
	num	Number of system r interval. The valid r	-	-	-	-	
	syslog_id	ID of the system log 100000-9999999.	g message to be	suppressed	1. The valid rar	nge of values is	
	unlimited	Disables rate limitir	ng, which means	that there	is no limit on tl	he logging rate.	
Command Modes	The following table sl	hows the modes in whicl Firewall M		the comma			
					Multiple		
		Routed	Transparent	Single	Context	System	
	Privileged EXEC	•	•	•	•	•	
Command History	Release	Modification					
	7.0(4)	This command was	introduced.				
Usage Guidelines	The system message s	severity levels are as foll	lows:				
	•0—System Unusable	•					
	•1—Take Immediate	Action					
	•1—Take Immediate A						
	•1—Take Immediate A •2—Critical Condition •3—Error Message						

- •4—Warning Message
- •5—Normal but significant condition
- •6—Informational
- •7—Debug Message

#### Examples

To limit the rate of system log message generation, you can enter a specific message ID. The following example shows how to limit the rate of system log message generation using a specific message ID and time interval:

#### hostname(config)# logging rate-limit 100 600 message 302020

This example suppresses system log message 302020 from being sent to the host after the rate limit of 100 is reached in the specified interval of 600 seconds.

To limit the rate of system log message generation, you can enter a specific severity level. The following example shows how to limit the rate of system log message generation using a specific severity level and time interval.

hostname(config)# logging rate-limit 1000 600 level 6

This example suppresses all system log messages under severity level 6 to the specified rate limit of 1000 in the specified time interval of 600 seconds. Each system log message in severity level 6 has a rate limit of 1000.

<b>Related Commands</b>	Command	Description
	clear running-config logging rate-limit	Resets the logging rate limit setting to its default.
	show logging	Shows the messages currently in the internal buffer or to shows logging configuration settings.
	show running-config logging rate-limit	Shows the current logging rate limit setting.

## logging recipient-address

To specify the receiving e-mail address for system log messages sent by the security appliance, use the **logging recipient-address** command in global configuration mode. To remove the receiving e-mail address, use the **no** form of this command. You can configure up to 5 recipient addresses. If you want, each recipient address can have a different message level than that specified by the **logging mail** command.

logging recipient-address address [level level]

no logging recipient-address address [level level]

Syntax Description	address	Specifies recipient e-mail address when sending system log messages by -email.				
	level	Indicates that a logging level follows.				
	level	Sets the maximum level for system log messages. For example, if you set the level to 3, then the security appliance generates system log messages for levels 3, 2, 1, and 0. You can specify either the number or the name, as follows:				
		• 0 or emergencies—System unusable.				
		• 1 or <b>alerts</b> —Take immediate action.				
		• 2 or <b>critical</b> —Critical condition.				
		• <b>3</b> or <b>errors</b> —Error.				
		• 4 or <b>warnings</b> —Warning.				
		• 5 or <b>notifications</b> —Normal but significant condition.				
		• <b>6</b> or <b>informational</b> —Information.				
		• 7 or <b>debugging</b> —Debug messages, log FTP commands, and WWW URLs.				
		<b>Note</b> We do not recommend using a level greater than 3 with the <b>logging recipient-address</b> command. Higher logging levels are likely to cause dropped system log messages because of buffer overflow.				
		The message level specified by a <b>logging recipient-address</b> command overrides the message level specified by the <b>logging mail</b> command. For example, if a <b>logging recipient-address</b> command specifies a level of 7 but the <b>logging mail</b> command specifies a level of 3, the security appliance sends				
		all messages to the recipient, including those of levels 4, 5, 6, and 7.				

**Defaults** No default behavior or values.

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

			Firewall N	lode	Security Context				
						Multiple			
	Command Mo	de	Routed	Transparent	Single	Context	System		
	Global config	guration	•	•	•	•	—		
Command History	Release	Modificati	on						
	7.0(1)	This comm	and was introd	uced.					
Usage Guidelines	Sending syste	m log messages	by e-mail is en	abled by the <b>log</b>	ging mail (	command.			
	logging level	than the others.	This command	address comma is useful when y nessages are sen	ou want m		have a different ssages to go to a		
Examples	To set up the security appliance to send system log messages by e-mail, use the following criteria:								
	• Send messages that are critical, alerts, or emergencies.								
	• Send messages using ciscosecurityappliance@example.com as the sender address.								
	• Send messages to admin@example.com.								
	• Send messages using SMTP, the primary servers pri-smtp-host, and secondary server sec-smtp-host								
	Enter the following commands:								
	hostname(config)# logging mail critical hostname(config)# logging from-address ciscosecurityappliance@example.com hostname(config)# logging recipient-address admin@example.com hostname(config)# smtp-server pri-smtp-host sec-smtp-host								

Command	Description
logging enable	Enables logging.
logging from-address	Specifies the e-mail address from which system log messages appear to come.
logging mail	Enables the security appliance to send system log messages by e-mail and determines which messages are sent by e-mail.
smtp-server	Configures an SMTP server.
show logging	Displays the enabled logging options.
show running-config logging	Displays the currently running logging configuration.
	logging enablelogging from-addresslogging mailsmtp-servershow loggingshow running-config

## logging savelog

To save the log buffer to Flash memory, use the logging savelog command in privileged EXEC mode.

logging savelog [savefile]

Syntax Description	savefile		(Optional) Saved Flash memory file name. If you do not specify the file name, the security appliance saves the log file using a default time-stamp format, as follows:						
		LOG-YYYY-MM-DD-HHMMSS.TXT where YYYY is the year, MM is the month, DD is the day of the month, and HHMMSS is the time in hours, minutes, and seconds.							
Defaults	The defaults	are as follows:							
	• Buffer size	ze is 4 KB.							
	Minimun	n free Flash memory	is 3 MB.						
	<ul> <li>Maximur</li> </ul>	n Flash memory allo	ocation for b	uffer logging is	1 MB.				
	• The defa	ult log file name is d	lescribed in	the "Syntax Des	cription" s	ection.			
Command Modes	The following	g table shows the mo	odes in which	h you can enter	the comma	ind:			
			Firewall M	ode	Security C	Context			
						Multiple			
	Command Mo	ode	Routed	Transparent	Single	Context	System		
	Privileged E2	XEC	•	•	•	—			
Command History	Release	Modification							
	7.0(1)	This command	l was introdu	iced.					
Usage Guidelines	the log buffer	an save the log buffe never has data to be e <b>red</b> command.		• •					
Note	The <b>logging s</b> command.	savelog command do	es not clear t	the buffer. To cle	ar the buffe	er, use the <b>clea</b> r	r logging buffer		
Examples		e enables logging and h memory, using the			configurat	ion mode, and	saves the log		

```
hostname(config)# logging enable
hostname(config)# logging buffered
hostname(config)# exit
hostname# logging savelog latest-logfile.txt
hostname#
```

#### **Related Commands**

Command	Description				
clear logging buffer	Clears the log buffer of all system log messages it contains.				
сору	Copies a file from one location to another, including to a TFTP or FTP server.				
delete	Deletes a file from the disk partition, such as saved log files.				
logging buffered	Enables logging to the log buffer.				
logging enable	Enables logging.				
show logging	Displays the enabled logging options.				

## logging standby

To enable the failover standby security appliance to send the system log messages of this security appliance to logging destinations, use the **logging standby** command in global configuration mode. To disable system log messaging and SNMP logging, use the **no** form of this command.

#### logging standby

no logging standby

Syntax Description	This command has no a	rguments or keywords.
--------------------	-----------------------	-----------------------

**Defaults** The **logging standby** command is disabled by default.

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

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

Command History	Release	Modification
	Preexisting	This command was preexisting.

Usage Guidelines

You can enable **logging standby** to ensure that the system log messages of the failover standby security appliance stay synchronized if failover occurs.

**Note** Using the **logging standby** command causes twice as much traffic on shared logging destinations, such as syslog servers, SNMP servers, and FTP servers.

#### **Examples**

The following example enables the security appliance to send system log messages to the failover standby security appliance. The output of the **show logging** command reveals that this feature is enabled.

hostname(config)# logging standby hostname(config)# show logging Syslog logging: enabled Facility: 20 Timestamp logging: disabled Standby logging: enabled Deny Conn when Queue Full: disabled Console logging: disabled Monitor logging: disabled Buffer logging: disabled Trap logging: disabled History logging: disabled Device ID: 'inside' interface IP address "10.1.1.1" Mail logging: disabled ASDM logging: disabled

#### **Related Commands**

Command	Description
failover	Enables the failover feature.
logging enable	Enables logging.
logging host	Defines a syslog server.
show logging	Displays the enabled logging options.
show running-config logging	Displays the logging-related portion of the running configuration.

## logging timestamp

L

To specify that system log messages should include the date and time that the messages was generated, use the **logging timestamp** command in global configuration mode. To remove the date and time from system log messages, use the **no** form of this command.

#### logging timestamp

no logging timestamp

**Syntax Description** This command has no arguments or keywords.

**Defaults** The security appliance does not include the date and time in system log messages by default.

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

	Firewall N	lode	Security Context		
Command Mode				Multiple	
	Routed	Transparent	Single	Context	System
Global configuration	•	•	•	•	_

Command History	Release	Modification
	Preexisting	This command was preexisting.

**Usage Guidelines** The **logging timestamp** command makes the security appliance include a timestamp in all system log messages.

**Examples** The following example enables the inclusion of timestamp information in all system log messages:

hostname(config)# logging enable hostname(config)# logging timestamp hostname(config)#

Related Commands	Command	Description
	logging enable	Enables logging.
	show logging	Displays the enabled logging options.
	show running-config	Displays the logging-related portion of the running configuration.
	logging	

## logging trap

To specify which system log messages the security appliance sends to a syslog server, use the **logging trap** command in global configuration mode. To remove this command from the configuration, use the **no** form of this command.

logging trap [logging\_list | level]

no logging trap

Syntax Description	level	Sets the m	aximum level	for system lo	g messages	s. For example,	if you set the			
	level to 3, then the security appliance generates system log messages for levels 3, 2, 1, and 0. You can specify either the number or the name, as follows:									
	• 0 or emergencies—System unusable.									
		• 1 or a	lerts—Take in	mmediate acti	on.					
		• 2 or c	ritical—Criti	cal condition.						
		• 3 or e	rrors—Error.							
		• 4 or w	v <b>arnings</b> —Wa	arning.						
		• 5 or <b>n</b>	otifications—	-Normal but s	ignificant o	condition.				
		• <b>6</b> or <b>informational</b> —Information.								
	• 7 or <b>debugging</b> —Debug messages, log FTP commands, and WWW URLs.									
	logging_list					end to the sysl list command.	og server. For			
Defaults	No default system	log message tra	ap is defined.							
Command Modes	The following tabl	le shows the mo	des in which	you can enter	the comma	nd:				
			Firewall Mod	le	Security (	Context				
		Multiple	le							
	Command Mode		Routed	Transparent	Single	Context	System			
	Global configurat	ion	•	•	•	•	—			

Command History	Release	Modification
	Preexisting	This command was preexisting.

Usage Guidelines	If you are using TCP as the logging transport protocol, the security appliance denies new network access sessions as a security measure if the security appliance is unable to reach the syslog server, if the syslog server is misconfigured, or if the disk is full.
	UDP-based logging does not prevent the security appliance from passing traffic if the syslog server fails.

Examples

This example shows how to send system log messages of levels 0, 1, 2, and 3 to a syslog server that resides on the inside interface and uses the default protocol and port number.

hostname(config)# logging enable hostname(config)# logging host inside 10.2.2.3 hostname(config)# logging trap errors hostname(config)#

Related Commands	Command	Description
	logging enable	Enables logging.
	logging host	Defines a syslog server.
	logging list	Creates a reusable list of message selection criteria.
	show logging	Displays the enabled logging options.
	show running-config logging	Displays the logging-related portion of the running configuration.

## login

To log into privileged EXEC mode using the local user database (see the username command) or to change user names, use the **login** command in user EXEC mode.

login

#### 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:

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

Command History	Release	Modification
	Preexisting	This command was preexisting.

## **Usage Guidelines** From user EXEC mode, you can log in to privileged EXEC mode as any username in the local database using the **login** command. The **login** command is similar to the **enable** command when you have enable authentication turned on (see the **aaa authentication console** command). Unlike enable authentication, the **login** command can only use the local username database, and authentication is always required with this command. You can also change users using the **login** command from any CLI mode.

To allow users to access privileged EXEC mode (and all commands) when they log in, set the user privilege level to 2 (the default) through 15. If you configure local command authorization, then the user can only enter commands assigned to that privilege level or lower. See the **aaa authorization command** for more information.

Caution

If you add users to the local database who can gain access to the CLI and whom you do not want to enter privileged EXEC mode, you should configure command authorization. Without command authorization, users can access privileged EXEC mode (and all commands) at the CLI using their own password if their privilege level is 2 or greater (2 is the default). Alternatively, you can use RADIUS or TACACS+ authentication, or you can set all local users to level 1 so you can control who can use the system enable password to access privileged EXEC mode.

**Examples** 

The following example shows the prompt after you enter the login command:

hostname> login

Username:

#### Related Commands

Command	Description
aaa authorization command	Enables command authorization for CLI access.
aaa authentication console	Requires authentication for console, Telnet, HTTP, SSH, or <b>enable</b> command access.
logout	Logs out of the CLI.
username	Adds a user to the local database.

## login-button

To customize the Login button of the WebVPN page login box that is displayed to WebVPN users when they connect to the security appliance, use the **login-button** command from webvpn customization configuration mode. To remove the command from the configuration and cause the value to be inherited, use the **no** form of the command.

**login-button** {**text** | **style**} *value* 

[no] login-button {text | style} value

Syntax Description	style Specifies you are changing the style.							
	text	text Specifies you are changing the text.						
	valueThe actual text to display (maximum 256 characters), or Cascading Style Sheet (CSS) parameters (maximum 256 characters).							
Defaults	The default logir	button text is	"Login".					
	The default logir	button style is	:					
	border: 1px	solid black;bac	kground-color	r:white;font-wei	ght:bold; f	ont-size:80%		
Command Modes	The following ta	ble shows the n	nodes in whic	h you can enter	the comma	nd:		
					1			
			Firewall M	lode	Security (	Context		
						Multiple		
	Command Mode		Routed	Transparent	Single	Context	System	
	WebVPN custon configuration	nization	•		•	—		
Command History	Release Modification							
	7.1(1) This command was introduced.							
Usage Guidelines	The <b>style</b> option is expressed as any valid Cascading Style Sheet (CSS) parameters. Describing these parameters is beyond the scope of this document. For more information about CSS parameters, consult CSS specifications at the World Wide Web Consortium (W3C) website at www.w3.org. Appendix F of the CSS 2.1 Specification contains a convenient list of CSS parameters, and is available at www.w3.org/TR/CSS21/propidx.html.							
	Here are some tips for making the most common changes to the WebVPN pages—the page colors:							
	• You can use	a comma-sepai		lue, an HTML co				
	<ul> <li>recognized in HTML.</li> <li>RGB format is 0,0,0, a range of decimal numbers from 0 to 255 for each color (red, green, blue); the comma separated entry indicates the level of intensity of each color to combine with the others.</li> </ul>							

• HTML format is #000000, six digits in hexadecimal format; the first and second represent red, the third and fourth green, and the fifth and sixth represent blue.

Note	e

• To easily customize the WebVPN pages, we recommend that you use ASDM, which has convenient features for configuring style elements, including color swatches and preview capabilities.

Examples	The following example customizes the Login button with the text "OK":
	F1-asal(config)# <b>webvpn</b> F1-asal(config-webvpn)# <b>customization cisco</b> F1-asal(config-webvpn-custom)# <b>login-button text OK</b>

<b>Related Commands</b>	Command	Description			
	login-title	Customizes the title of the WebVPN page login box.			
	group-prompt	Customizes the group prompt of the WebVPN page login box.			
	password-prompt	Customizes the password prompt of the WebVPN page login box.			
	username-prompt	Customizes the username prompt of the WebVPN page login box.			

## login-message

To customize the login message of the WebVPN page displayed to WebVPN users when they connect to the security appliance, use the **login-message** command from webvpn customization configuration mode. To remove the command from the configuration and cause the value to be inherited, use the **no** form of the command.

login-message {text | style} value

[no] login-message {text | style} value

Syntax Description	text Specifies you are changing the text.							
	styleSpecifies you are changing the style.							
	valueThe actual text to display (maximum 256 characters), or Cascading Style Sheet (CSS) parameters (maximum 256 characters).							
Defaults	-	n message is "Please en	•	•				
	The default logir	1 message style is back	ground-co	olor:#CCCCCC	;color:b	lack.		
Command Modes	The following ta	ble shows the modes ir	n which ye	ou can enter th	e comma	nd:		
			Firewall	Mode	Security	v Context		
						Multiple		
	Command Mode		Routed	Transparent	Single	Context	System	
	WebVPN custom	nization configuration	•		•			
Command History	Release	Modification						
	7.1(1)	This command	was intro	duced.				
Jsage Guidelines	parameters is bey CSS specificatio the CSS 2.1 Spec	is expressed as any val yond the scope of this of ns at the World Wide V cification contains a co /CSS21/propidx.html.	locument. Veb Conse	. For more info ortium (W3C)	rmation a website a	about CSS pa at www.w3.o	rameters, consu rg. Appendix F c	
Jsage Guidelines	parameters is be CSS specificatio the CSS 2.1 Spec www.w3.org/TR	yond the scope of this of ns at the World Wide V cification contains a co	locument. Veb Conse nvenient 1	. For more info ortium (W3C) list of CSS par	website a ameters,	about CSS pa about www.w3.or and is availa	arameters, consu rg. Appendix F c ble at	
Jsage Guidelines	parameters is bey CSS specificatio the CSS 2.1 Spec www.w3.org/TR Here are some ti	yond the scope of this of ns at the World Wide W eification contains a co /CSS21/propidx.html. ps for making the most a comma-separated RC	locument. Veb Conse nvenient 1 c common	. For more info ortium (W3C) list of CSS par- changes to the	website a ameters, WebVP	about CSS pa at www.w3.or and is availa N pages—the	arameters, consu rg. Appendix F c ble at e page colors:	
Jsage Guidelines	<ul> <li>parameters is bey CSS specificatio the CSS 2.1 Spec www.w3.org/TR</li> <li>Here are some ti</li> <li>You can use recognized i</li> <li>RGB format</li> </ul>	yond the scope of this of ns at the World Wide W eification contains a co /CSS21/propidx.html. ps for making the most a comma-separated RC	locument. Veb Conse nvenient 1 common GB value, imal num	. For more info ortium (W3C) list of CSS par- changes to the an HTML colo bers from 0 to 2	ormation a website a ameters, e WebVP or value, 255 for ea	about CSS pa and is availa N pages—the or the name	arameters, consu rg. Appendix F c ble at e page colors: of the color if l, green, blue); th	

<u>Note</u>

To easily customize the WebVPN pages, we recommend that you use ASDM, which has convenient features for configuring style elements, including color swatches and preview capabilities.

#### Examples

In the following example, the login message text is set to "username and password":

F1-asal(config)# **webvpn** F1-asal(config-webvpn)# **customization cisco** F1-asal(config-webvpn-custom)# **login-message text username and password** 

<b>Related Commands</b>	Command	Description
	login-title	Customizes the title of the login box on the WebVPN page.
	username-prompt	Customizes the username prompt of the WebVPN page login.
	password-prompt	Customizes the password prompt of the WebVPN page login.
	group-prompt	Customizes the group prompt of the WebVPN page login.

## login-title

To customize the title of the login box on the WebVPN page displayed to WebVPN users, use the **login-title** command from webvpn customization configuration mode. To remove the command from the configuration and cause the value to be inherited, use the **no** form of the command.

login-title {text | style} value

[no] login-title {text | style} value

Syntax Description	text Specifies you are changing the text.							
	style Specifies you are changing the HTML style.							
	valueThe actual text to display (maximum 256 characters), or Cascading Style Sheet (CSS) parameters (maximum 256 characters).							
Defaults	The default login	n text is "Login	?'.					
	The default HTM	_		ackground-colo	r: #666666	; color: white.		
Command Modes	The following ta	ble shows the r	nodes in whic	h you can enter	the comma	nd:		
			Firewall N	lode	Security C	ontext		
	Command Mode		Routed	Transparent	Single	Multiple Context	System	
	WebVPN custon configuration	nization	•		•			
Command History	Release	Release Modification						
	7.1(1)This command was introduced.							
Usage Guidelines	The <b>style</b> option parameters is be CSS specificatio the CSS 2.1 Spe www.w3.org/TR	yond the scope ons at the World cification conta	of this docum Wide Web C ins a conveni	ent. For more in onsortium (W3C	formation a c) website a	about CSS para at www.w3.org	ameters, consul . Appendix F o	
	Here are some tips for making the most common changes to the WebVPN pages-the page colors:							
	• You can use a comma-separated RGB value, an HTML color value, or the name of the color if recognized in HTML.							
	<ul> <li>RGB format is 0,0,0, a range of decimal numbers from 0 to 255 for each color (red, green, blue); the comma separated entry indicates the level of intensity of each color to combine with the others.</li> <li>HTML format is #000000, six digits in hexadecimal format; the first and second represent red, the third and fourth green, and the fifth and sixth represent blue.</li> </ul>							

<u>Note</u>

To easily customize the WebVPN pages, we recommend that you use ASDM, which has convenient features for configuring style elements, including color swatches and preview capabilities.

Examples	The following example configures the login title style:					
	<pre>F1-asa1(config)# webvpn F1-asa1(config-webvpn)# customization cisco F1-asa1(config-webvpn-custom)# login-title style background-color: rgb(51,51,255);color: rgb(51,51,255); font-family: Algerian; font-size: 12pt; font-style: italic; font-weight: bold</pre>					
Related Commands	Command	Description				
	login-message	Customizes the login message of the WebVPN login page.				
	login-message username-prompt	•				
	8 8	Customizes the login message of the WebVPN login page.				

logo

## logo

To customize the logo on the WebVPN page displayed to WebVPN users when they connect to the security appliance, use the **logo** command from webvpn customization mode. To remove a logo from the configuration and reset the default (the Cisco logo), use the **no** form of this command.

**logo** {**none** | **file** {*path* value}}

[**no**] **logo** {**none** | **file** {*path* value}}

yntax Description	file	Indicates you are supplying a file containing a logo.
	none	Indicates that there is no logo. Sets a null value, thereby disallowing a logo. Prevents inheriting a logo.
	path	The path of the filename. The possible paths are disk0:, disk1:, or flash:
	value	Specifies the filename of the logo. Maximum length is 255 characters, with no spaces. File type must be JPG, PNG, or GIF, and must be less than 100 KB.

#### **Defaults** The default logo is the Cisco logo.

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

	Firewall <b>N</b>	Node	Security Context			
				Multiple		
Command Mode	Routed	Transparent	Single	Context	System	
WebVPN customization configuration	•	—	•		_	

## Release Modification 7.1(1) This command was introduced.

#### **Usage Guidelines**

If the filename you specify does not exist, an error message displays. If you remove a logo file but the configuration still points to it, no logo displays.

The filename cannot contain spaces.

#### **Examples** In the following example, the file cisco\_logo.gif contains a custom logo: F1-asa1(config)# webvpn F1-asa1(config-webvpn)# customization cisco F1-asa1(config-webvpn-custom)#logo file disk0:cisco\_logo.gif

## logout

To exit from the CLI, use the **logout** command in user EXEC mode.

logout

**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:

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

 Release
 Modification

 Preexisting
 This command was preexisting.

Usage Guidelines The logout command lets you log out of the security appliance. You can use the exit or quit commands to go back to unprivileged mode.

 Examples
 The following example shows how to log out of the security appliance:

 hostname> logout

<b>Related Commands</b>	Command	Description	
	login	Initiates the log-in prompt.	
exit		Exits an access mode.	
	quit	Exits configuration or privileged mode.	

### logout-message

To customize the logout message of the WebVPN logout screen that is displayed to WebVPN users when they logout from WebVPN service, use the **logout-message** command from webvpn customization configuration mode. To remove the command from the configuration and cause the value to be inherited, use the **no** form of the command.

logout-message {text | style} value

[no] logout-message {text | style} value

Syntax Description	style Specifies you are changing the style.							
	text	t Specifies you are changing the text.						
	value	The actual text to disp	•		), or Cascad	ding Style She	et (CSS)	
		parameters (maximum	n 256 characte	rs).				
Defaults	The de	fault logout message tex	t is "Goodbye	" <b>.</b>				
	The de	fault logout message sty	le is backgrou	nd-color:#99999	99;color:bla	ick.		
Command Modes	The fol	lowing table shows the	modes in whic	eh you can enter	the comma	nd:		
	Firewall M				Security C	Context		
						Multiple		
	Comma	and Mode	Routed	Transparent	Single	Context	System	
	WebVI config	PN customization uration	•		•			
Command History	Release Modification							
	7.1(1)This command was introduced.							
Usage Guidelines	parame CSS sp the CSS	<b>The</b> option is expressed a ters is beyond the scope ecifications at the World S 2.1 Specification contations/3.org/TR/CSS21/propid	e of this docum d Wide Web C ains a conveni	ent. For more in onsortium (W3C	formation a	about CSS para at www.w3.org	ameters, con . Appendix l	
	Here are some tips for making the most common changes to the WebVPN pages—the page colors:							
	<ul> <li>You can use a comma-separated RGB value, an HTML color value, or the name of the color if recognized in HTML.</li> </ul>							
		-						

• HTML format is #000000, six digits in hexadecimal format; the first and second represent red, the third and fourth green, and the fifth and sixth represent blue.

```
Note
```

To easily customize the WebVPN pages, we recommend that you use ASDM, which has convenient features for configuring style elements, including color swatches and preview capabilities.

#### Examples

The following example configures the logout message style:

F1-asa1(config)# webvpn
F1-asa1(config-webvpn)# customization cisco
F1-asa1(config-webvpn-custom)# logout-message style background-color:
rgb(51,51,255);color: rgb(51,51,255); font-family: Algerian; font-size: 12pt; font-style:
italic; font-weight: bold

<b>Related Commands</b>	Command	Description
	logout-title	Customizes the logout title of the WebVPN page.
	group-prompt	Customizes the group prompt of the WebVPN page login box.
	password-prompt	Customizes the password prompt of the WebVPN page login box.
	username-prompt	Customizes the username prompt of the WebVPN page login box.