

# logging asdm through logout message Commands

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# logging asdm

To send syslog 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	severity level to	o 3, then the A	level for syslog r ASA generates sy r the number or	slog messa	ages for severit	•		
		• 0 or emerg	gencies—Sys	tem is unusable.					
	• 1 or <b>alerts</b> —Immediate action needed.								
	• 2 or critical—Critical conditions.								
		• 3 or error	s—Error cond	litions.					
		• 4 or <b>warn</b> i	<b>ings</b> —Warnin	g conditions.					
		• 5 or notifi	cations—Nor	mal but signification	ant condition	ons.			
		• 6 or inform	<b>mational</b> —In	formational mes	sages.				
		• 7 or <b>debu</b> g	gging—Debug	gging messages.					
	logging_list	-		ies the messages			g buffer. For		
		information ab	out creating I	ists, see the logg	ging list co	mmand.			
Command Modes	The following	table shows the n	nodes in whic		the comma				
			i newan w	louc		Multiple			
	Command Mod	e	Routed	Transparent	Single	Context	System		
	Global configu	iration	•	•	•	•	•		
Command History	Release	Modification							
	7.0(1)	This comman	nd was introd	uced.					
Usage Guidelines	Before any mes command.	ssages are sent to	the ASDM log	g buffer, you mus	st enable lo	gging using the	logging enable		

When the ASDM log buffer is full, the ASA deletes the oldest message to make room in the buffer for new messages. To control the number of syslog 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
```

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The following example shows how to enable logging, send log buffer messages of severity levels 0, 1, and 2 to the ASDM, and 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	Description
	clear logging asdm	Clears the ASDM log buffer of all messages that it contains.
	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 syslog 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	<i>num_of_msgs</i> Specifies the number of syslog messages that the ASA retains in the ASDM log buffer.						
Defaults	The default ASDM	syslog buffer	r size is 100	messages.			
Command Modes	The following table	e 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	on	•	•	•	•	—
Command History Usage Guidelines		control wheth tained in the	ill, the ASA er logging to ASDM log b	deletes the oldes the ASDM log uffer, use the <b>log</b>	buffer is en gging asdm	abled or to control command.	ntrol the kind of
Examples	The following exam ASDM log buffer, a hostname(config)# hostname(config)# hostname(config)# Syslog logging: e Facility: 20 Timestamp logg Standby loggi Deny Conn whe Console loggi Monitor loggi	and how to se <b>logging end</b> <b>logging as</b> <b>logging as</b> <b>show logging</b> enabled gging: disabled en Queue Full. ng: disabled	et the ASDM able dm 2 dm-buffer-s ng led d 1: disabled d	log buffer size t	-	•	), 1, and 2 to the

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

### **Related Commands**

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Command	Description
clear logging asdm	Clears the ASDM log buffer of all messages that 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 ASA to send syslog 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	severity level to	3, then the A	<i>level</i> Sets the maximum severity level for syslog messages. For example, if you set the severity level to 3, then the ASA generates syslog messages for severity levels 3, 2, 1, and 0. You can specify either the number or the name, as follows:						
		• 0 or emerge								
	• 1 or alerts—Immediate action needed.									
		• 2 or critical	—Critical co	onditions.						
		• 3 or errors-	-Error condi	itions.						
		• 4 or warnin	<b>gs</b> —Warninş	g conditions.						
		• 5 or <b>notifica</b>	<b>tions</b> —Nori	nal but significa	nt conditio	ns.				
		• 6 or information	<b>ational</b> —Inf	ormational mess	ages.					
		• 7 or <b>debugg</b>	<b>ing</b> —Debug	ging messages.						
	logging_list	Specifies the list about creating list		-		he log buffer. F	For informatio			
Defaults	The defaults are as follows:									
	• Logging to the buffer is disabled.									
	• The buffer size is 4 KB.									
Command Modes	The following	table shows the m		-	1					
Command Modes	The following	table shows the m	odes in whic	-	the comma	Context				
Command Modes			Firewall N	lode	Security C	Context Multiple				
Command Modes	Command Mo	de		-	1	Context	System			
Command Modes		de	Firewall N	lode	Security C	Context Multiple	System •			
Command Modes	Command Mo	de	Firewall N Routed	lode Transparent	Security C Single	Context Multiple Context	-			

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 ASA clears the buffer and continues adding messages to it. When the log buffer is full, the ASA 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.

You can view syslog messages that have been sent to the buffer with the show logging command.

Examples

The following example configures logging to the buffer for severity level 0 and level 1 events:

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

The following example creates a list named" notif-list" with a maximum severity level of 7 and configures logging to the buffer for syslog 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 syslog messages that it contains.
	logging buffer-size	Specifies log buffer size.
	logging enable	Enables logging.
	logging list	Creates a reusable list of message selection criteria.
	logging savelog	Saves the contents of the log buffer to flash memory.

# 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	riptionbytesSets the amount of memory used for the log buffer, in bytes. For example, you specify 8192, the ASA uses 8 KB of memory for the log buffer.								
Defaults	The default lo	og buffer size is	4 KB of memor	у.					
Command Modes	The following	g table shows th	e modes in whic	h you can enter	the comma	ind:			
			Firewall N	lode	Security C	Context			
						Multiple			
	Command Mo	de	Routed	Transparent	Single	Context	System		
	Global config	guration	•	•	•	•	•		
	Dalaasa	Madifia at							
Command History	<b>Release</b> 7.0(1)	Release     Modification       7.0(1)     This command was introduced.							
Usage Guidelines	To see whethe	f <b>ig logging</b> com		of a size other t <b>jing buffer-size</b>			e, use the <b>show</b> en the ASA uses		
	For more info	rmation about h	now the ASA use	es the buffer, see	e the <b>loggin</b>	<b>g buffered</b> co	mmand.		
Examples	The following example enables logging, enables the logging buffer, and specifies that the ASA uses 16 KB of memory for the log buffer:								
	hostname(con			5384					

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<b>Related Commands</b>	Command	Description
	clear logging buffer	Clears the log buffer of all syslog messages that 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 savelog	Saves the contents of the log buffer to flash memory.

# logging class

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

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

no logging class class

Syntax Description	class	-	U	whose maximun s of <i>class</i> , see the	•		<b>U</b> 1			
	destinationSpecifies a logging destination for class. For the destination, the level det maximum severity level sent to destination. For valid values of destination"Usage Guidelines" section that follows.									
	level	severity level	s the maximum severity level for syslog messages. For example, if you set the erity level to 3, then the ASA generates syslog messages for severity levels 3, 2, 1, 0. You can specify either the number or the name, as follows:							
		• 0 or eme	<b>rgencies</b> —Sys	tem is unusable.						
		• 1 or <b>aler</b>	<b>ts</b> —Immediate	action is needed	1.					
		• 2 or criti	cal—Critical c	onditions.						
		• <b>3</b> or <b>errors</b> —Error conditions.								
	<ul> <li>4 or warnings—Warning conditions.</li> <li>5 or notifications—Normal but significant conditions.</li> </ul>									
	• 6 or informational—Informational messages.									
		• 7 or <b>debu</b>	ugging—Debug	gging messages.						
Defaults Command Modes	Instead, each	By default, the ASA does not apply severity levels on a logging destination and message class basis. Instead, each enabled logging destination receives messages for all classes at the severity level determined by the logging list or severity level specified when you enabled the logging destination.								
	The following table shows the modes in which you may enter the command.									
			Firewall N	lode	Security C	1				
						Multiple				
	Command Mo		Routed	Transparent	Single	Context	System			
	Global config			•	•					

Command History	Release	Modification
	7.2(1)	This command was introduced.
	8.0(2)	Added eigrp to valid class values.
	8.2(1)	Added <b>dap</b> to valid class values.

### **Usage Guidelines**

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Valid values for *class* include the following:

- auth—User authentication.
- bridge—Transparent firewall.
- **ca**—PKI certificate authority.
- **config**—Command interface.
- dap—Dynamic Access Policies.
- **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.
- eigrp—EIGRP routing.
- email—Email proxy.
- ha—Failover.
- **ids**—Intrusion detection system.
- ip—IP stack.
- ipaa—IP address assignment
- 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.
- **rm**—Resource Manager.
- session—User session.
- snmp—SNMP.
- sys—System.
- vpn—IKE and IPSec.
- vpnc—VPN client.
- **vpnfo**—VPN failover.
- **vpnlb**—VPN load balancing.

Valid logging destinations are as follows:

• **asdm**—To learn about this destination, see the **logging asdm** command.

- **buffered**—To learn about this destination, see the **logging buffered** command.
- console—To learn about this destination, see the logging console 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** The following example specifies that, for failover-related messages, the maximum severity level for the ASDM log buffer is 2 and the maximum severity level for the syslog buffer is 7:

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

<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 console

To enable the ASA to display syslog messages in console sessions, use the **logging console** command in global configuration mode. To disable the display of syslog messages in console sessions, use the **no** form of this command.

logging console [logging\_list | level]

no logging console

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

Syntax Description	level	Sets the maximu	m severity le	evel for syslog n	nessages. F	or example, if	you set the		
-,	severity level to 3, then the ASA generates syslog messages for severity levels 3, 2, and 0. You can specify either the number or the name, as follows:								
	• 0 or emergencies—System is unusable.								
	• 1 or <b>alerts</b> —Immediate action needed.								
		• 2 or <b>critical</b> —Critical conditions.							
		• 3 or errors-	-Error cond	itions.					
		• 4 or warnin	<b>gs</b> —Warning	g conditions.					
		• 5 or <b>notifica</b>	tions—Nori	mal but significa	nt conditio	ns.			
		• 6 or informational—Informational messages.							
	• 7 or <b>debugging</b> —Debugging messages.								
	<i>logging_list</i> Specifies the list that identifies the messages to send to the console session. For information about creating lists, see the <b>logging list</b> command.								
Defaults	The ASA does not display syslog messages in console sessions by default.								
Command Modes	The following	table shows the m	odes in whic	h vou can enter	the comma	nd.			
			Firewall N	lode	Security Context				
						Multiple			
	Command Mode		Routed	Transparent	Single	Context	System		
	Global configuration		•	•	•	•	•		
Command History	Release	Modification							

Usage Guidelines	Before any messages are sent to the console, you must enable logging using the <b>logging enable</b> command.
<u>_!\</u> Caution	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	The following example shows how to enable syslog messages of severity levels 0, 1, 2, and 3 to appear in console sessions:
	<pre>hostname(config)# logging enable hostname(config)# logging console errors hostname(config)#</pre>

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.

#### logging debug-trace

## logging debug-trace

To redirect debugging messages to logs as syslog 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.
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**Defaults** By default, the ASA does not include debugging output in syslog messages.

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

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

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

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

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

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

The following is sample output of a debugging message that could appear in the logs:

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

<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 device-id

## logging device-id

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To configure the ASA to include a device ID in non-EMBLEM-format syslog 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 {cluster-id | context-name | hostname | ipaddress interface\_name [system] |
 string text}

Syntax Description	cluster-id	Specifies the unique name of an individual ASA unit in the cluster as the device ID.
	hostname	Specifies the hostname of the ASA as the device ID.
	<b>ipaddress</b> interface_name	Specifies the device ID or the IP address of the interface in <i>interface_name</i> . If you use the <b>ipaddress</b> keyword, syslog messages sent to an external server include the IP address of the interface specified, regardless of which interface the ASA uses to send the log data to the external server.
	string text	Specifies the characters included in <i>text</i> as the device ID, which can be up to 16 characters long. You cannot use white space characters or any of the following characters:
		• &—ampersand
		• '—single quote
		• "—double quote
		• <—less than
		• >—greater than
		• ?—question mark
	system	(Optional) In the cluster environment, dictates that the device ID becomes the system IP address on the interface.

### Defaults

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No default behaviors or values.

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

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

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Command History	Release	Modification			
	7.0(1)	This command was introduced.			
	9.0(1)	The <b>cluster-id</b> and <b>system</b> keywords have been added.			
Usage Guidelines	If you use the <b>ipaddress</b> keyword, the device ID becomes the specified ASA 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. If you use the <b>system</b> keyword, the specified ASA uses the system IP address instead of the local IP address of the unit in a cluster. The <b>cluster-id</b> and <b>system</b> keywords apply to the ASA 5580 and 5585-X only.				
Examples	The following	g example shows how to configure a host named "secappl-1":			
	hostname(con	fig)# logging device-id hostname fig)# show logging			
	Facility: 20	ng: disabled			
	-	ngging: disabled ring: disabled			
	Console logg	ing: disabled			
		ing: disabled ng: level informational, 991 messages logged			
	Trap logging	: disabled			
		ring: disabled ostname "secappl-1"			
	The hostname appears at the beginning of syslog messages, as shown in the following message:				
	secappl-1 %A	SA-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

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To use the EMBLEM format for syslog 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 ASA does not use EMBLEM format for syslog messages.

**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	
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** The following 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)#

Related Commands	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

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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 n	no arguments	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	lode	Security Context		
				Multiple	
Command Mode	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 syslog 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** 

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The following 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

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

# logging facility

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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	<i>facility</i> Specifies the logging facility; valid values are 16 through 23.							
Defaults	The default fa	acility is 20 (LO	CAL4).					
Command Modes	-	g table shows the escription sectio	e modes in which n.	n you can enter t	he comman	nd, with the exc	eptions noted ir	
			Firewall M	lode	Security Context			
						Multiple		
	Command Mo		Routed	Transparent	Single	Context	System	
	Global config	guration	•	•	•	•	•	
Command History	Release	Modificati	on					
oonnana motory	7.0(1)     This command was introduced.							
Usage Guidelines Examples	facilities: 16 (	(LOCAL0) throu	based on the <i>fac</i> ugh 23 (LOCAL	7).	-			
Lyampies	-	The following example shows how to specify that the ASA indicate the logging facility as 16 in syslog messages. The output of the <b>show logging</b> command includes the facility being used by the ASA:						
	hostname(con Syslog loggi Facility Timestam Standby Deny Con Console Monitor Buffer 1 Trap log Logg History	: 16 ap logging: disa logging: disak n when Queue H logging: disak logging: disak ogging: disab ging: level en ring to infrast logging: disak	gging sabled oled Full: disabled oled oled ted crors, facility cructure 10.1.2	2.3		red		

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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.

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# logging flash-bufferwrap

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To enable the ASA 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

Syntax Description	This command	d has no argumer	nts or keywords	5.			
Defaults	The defaults a	are as follows:					
	• Logging to the buffer is disabled.						
	• Writing th	he log buffer to f	lash memory is	s disabled.			
	• The buffe	er size is 4 KB.					
	• Minimum	n free flash memo	ory is 3 MB.				
	• Maximum	n flash memory a	allocation for b	uffer logging is	1 MB.		
Command Modes	The fellowing	tabla abawa tha	madaa in whia	h vou con onton	the commo	nd	
Commanu Moues	The following	table shows the	modes in whic	n you can enter	the comma	na.	
			Firewall N	lode	Security C	ontext	
					-	Multiple	
	Command Mo	de	Routed	Transparent	Single	Context	System
					-		
	Global config	guration	•	•	•		—
Command History				•	•		
Command History	Release	Modificatio	n		•		
Command History		Modificatio			•		
Command History Usage Guidelines	Release 7.0(1) For the ASA t the log buffer	Modificatio	n and was introdu	uced. nemory, you mus	t enable lo		
	Release 7.0(1) For the ASA t the log buffer logging buffe	<b>Modificatio</b> This comm to write the log b never has data to <b>red</b> command. A writes log buff	n and was introduced suffer to flash n to be written to	uced. nemory, you mus flash memory. To	st enable lo o enable lo	gging to the bu	iffer, use the
	Release7.0(1)For the ASA to the log bufferlogging bufferWhile the ASA to the log buffer	<b>Modificatio</b> This comm to write the log b never has data to <b>red</b> command. A writes log buff	and was introduced and was introduced outfer to flash n to be written to fer contents to f	uced. nemory, you mus flash memory. To lash memory, it o	st enable lo o enable lo continues s	gging to the bu toring any new	offer, use the
	Release7.0(1)For the ASA tthe log bufferlogging buffeWhile the ASAto the log buffeThe ASA creat	Modificatio This comm to write the log b never has data to red command. A writes log buff fer.	and was introduced and was introduced outfer to flash n to be written to fer contents to f	uced. nemory, you mus flash memory. To lash memory, it o	st enable lo o enable lo continues s	gging to the bu toring any new	offer, use the

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

**Examples** 

The following example shows how to enable logging, enable the log buffer, and enable the ASA to write the log buffer to flash memory:

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

Related Commands	Command	Description
	clear logging buffer	Clears the log buffer of all syslog messages that 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 buffer-size	Specifies log buffer size.

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# logging flash-maximum-allocation

To specify the maximum amount of flash memory that the ASA 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 ASA can use to save log buffer data.								
Defaults	The default maximu	m flash memory allocat	ion for log data is	s 1 MB.					
Command Modes	The following table	shows the modes in whi	ch you can enter	the comma	ınd.				
		Firewall	Mode	Security Context					
					Multiple				
	Command Mode	Routed	Transparent	Single	Context	System			
	Global configuratio	n •	•	•	—	—			
Command History		Release Modification							
	7.0(1) T	his command was intro	duced.						
Usage Guidelines	This command deter	mines how much flash i ommands.	nemory is availal	ble for the l	logging savelo	g and logging			
	log files to exceed th command, the ASA	yed by <b>logging savelog</b> of the maximum amount spe deletes the oldest log file if, after all old files are of	ecified by the <b>log</b> es to free sufficien	<b>ging flash-</b> nt memory	maximum-all for the new log	ocation file. If there are			
	ASA fails to save th	e new log file.				ew log file, the			
	ASA fails to save th To see whether the A use the <b>show runnin</b> is not shown, then th	e new log file. SA has a maximum flasi ng-config logging comm ne ASA uses a maximum logging savelog and log	h memory allocat nand. If the <b>loggi</b> 1 of 1 MB for sav	<b>ng flash-m</b> red log buff	<b>aximum-alloc</b> er data. The m	the default size, ation command			

### Examples

The following example shows how to enable logging, enable the log buffer, enable the ASA 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 Co

nands	Command	Description				
	clear logging buffer	Clears the log buffer of all syslog 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 ASA to permit writing of the log buffer to flash memory.				

# logging flash-minimum-free

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To specify the minimum amount of free flash memory that must exist before the ASA saves a new log file, use the **logging flash-minimum-free** command in global configuration mode. 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 ASA saves a new log file.					be available			
Defaults	The default n	1 nimum free fl	ash memory is 3	MB.				
Command Modes	The following	g table shows tl	he modes in whic	h you can enter	the comma	ınd.		
			Firewall N	lode	Security Context			
						Multiple		
	Command Mode		Routed	Transparent	Single	Context	System	
	Global config	guration	•	•	•	•	—	
Command History	Release Modification							
	7.0(1)	This com	mand was introd	uced.				
Usage Guidelines	logging flash If a log file to flash memory deletes the ol new log file.	<b>bufferwrap</b> c be saved by <b>log</b> to fall below t dest log files to If there are no f	-free command s ommands must p gging savelog or he limit specified o ensure that the r iles to delete or is ls to save the new	reserve at all tin logging flash-bu l by the logging ninimum amoun f, after all old fil	nes. <b>ufferwrap</b> flash-mini It of memor	would cause th <b>mum-free</b> con y remains free	e amount of free nmand, the ASA e after saving the	
Examples	log buffer to t KB: hostname(cor hostname(cor	flash memory, a hfig)# logging hfig)# logging hfig)# logging hfig)# logging		the minimum an	-			

### **Related Commands**

Command	Description           Clears the log buffer of all syslog messages that it contains.				
clear logging buffer					
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.				

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# logging flow-export-syslogs enable | disable

To enable all of the syslog messages that NetFlow captures, use the **logging flow-export-syslogs enable** command in global configuration mode. To disable all of the syslog messages that NetFlow captures, use the **logging flow-export-syslogs disable** command in global configuration mode.

logging flow-export-syslogs {enable | disable}

Syntax Description	This command has no arguments or keywords.						
<b>Defaults</b> By default, all syslogs that are captured by NetFlow are enabled.							
Command Modes	The following table she	ows the modes in whi	ch you can enter	the comma	ind:		
		Firewall I	Node	Security Context			
					Multiple		
	Command Mode	Routed	Transparent	Single	Context	System —	
	Global configuration	•	•	•	•		
	Release Modification						
Command History	Release	Modification					
	8.1(1) If the security applianc	This command wa	ort NetFlow data,	-	-		
	8.1(1) If the security applianc that you disable redund <b>flow-export-syslogs di</b>	This command wa e is configured to expo lant syslog messages isable command. The	ort NetFlow data, (those also captu:	red by Net	Flow) by enteri	ing the <b>loggin</b>	
	8.1(1) If the security appliance that you disable redund flow-export-syslogs dis Syslog Message	This command wa e is configured to expe lant syslog messages isable command. The Description	ort NetFlow data, (those also captu: syslog messages	red by Netl that will b	Flow) by entering disabled are	ing the <b>loggin</b> as follows:	
	8.1(1) If the security applianc that you disable redund flow-export-syslogs di Syslog Message 106015	This command wa e is configured to expe lant syslog messages isable command. The Description A TCP flow was c	ort NetFlow data, (those also captu: syslog messages lenied because th	red by Netl that will b e first pack	Flow) by entering the disabled are the was not a S	ing the <b>loggin</b> as follows: YN packet.	
	8.1(1) If the security appliance that you disable redund flow-export-syslogs dis Syslog Message	This command wa e is configured to expe lant syslog messages isable command. The Description A TCP flow was c A flow that is den	ort NetFlow data, (those also captu: syslog messages lenied because th ied by an ingress	red by Netl that will b e first pack ACL or an	Flow) by entering the disabled are tet was not a S a egress ACL th	ing the <b>loggin</b> as follows: YN packet.	
	8.1(1) If the security appliance that you disable redund flow-export-syslogs dis Syslog Message 106015 106023	This command water is configured to expendent syslog messages is able command. The Description A TCP flow was of A flow that is den to an interface three to be a flow that is den to an interface three to be a flow that is den to an interface three to be a flow that is den to be a flow that is de	ort NetFlow data, (those also captur syslog messages lenied because th ied by an ingress ough the <b>access-</b>	red by Netl that will b e first pack ACL or an group com	Flow) by entering e disabled are acet was not a S egress ACL the mand.	ing the <b>loggin</b> as follows: YN packet.	
	8.1(1) If the security appliance that you disable reduced flow-export-syslogs dis Syslog Message 106015 106023 106100	This command water is configured to expendent syslog messages is able command. The Description A TCP flow was of A flow that is dent to an interface three A flow that is performed by the system of t	ort NetFlow data, (those also captur syslog messages lenied because th ied by an ingress ough the <b>access-</b> nitted or denied l	red by Netl that will b e first pack ACL or an group com	Flow) by entering e disabled are acet was not a S egress ACL the mand.	ing the <b>loggin</b> as follows: YN packet.	
	8.1(1)If the security appliance that you disable redund flow-export-syslogs diSyslog Message106015106023106100302013 and 302014	This command water is configured to expendent syslog messages isable command. The Description A TCP flow was of A flow that is den to an interface three A flow that is period. A TCP connection	ort NetFlow data, (those also captur syslog messages lenied because th ied by an ingress ough the <b>access-g</b> nitted or denied l	red by Netl that will b e first pack ACL or an group com	Flow) by entering e disabled are acet was not a S egress ACL the mand.	ing the <b>loggin</b> as follows: YN packet.	
	8.1(1) If the security appliance that you disable reduned <b>flow-export-syslogs di</b> <b>Syslog Message</b> 106015 106023 106100 302013 and 302014 302015 and 302016	This command water is configured to expendent syslog messages is able command. The <b>Description</b> A TCP flow was of A flow that is den to an interface throw A flow that is perform A TCP connection A UDP connection	ort NetFlow data, (those also captur syslog messages lenied because th ied by an ingress ough the <b>access-g</b> nitted or denied l and deletion.	red by Netl that will b e first pack ACL or an group com	Flow) by entering e disabled are acet was not a S egress ACL the mand.	ing the <b>loggin</b> as follows: YN packet.	
	8.1(1)If the security appliance that you disable redund flow-export-syslogs diSyslog Message106015106023106100302013 and 302014	This command water is configured to expendent syslog messages isable command. The Description A TCP flow was of A flow that is den to an interface three A flow that is period. A TCP connection	ort NetFlow data, (those also captur syslog messages lenied because th ied by an ingress ough the <b>access-g</b> nitted or denied l and deletion. n and deletion.	red by Netl that will b e first pack ACL or an group com by an ACL	Flow) by entering e disabled are acet was not a S a egress ACL the mand.	ing the <b>loggin</b> as follows: YN packet.	
	8.1(1) If the security appliance that you disable redund flow-export-syslogs di Syslog Message 106015 106023 106100 302013 and 302014 302015 and 302016 302017 and 302018	This command water is configured to expedant syslog messages isable command. The Description A TCP flow was of A flow that is den to an interface three A flow that is period A TCP connection A UDP connection A GRE connection A	ort NetFlow data, (those also captur syslog messages lenied because th ied by an ingress ough the <b>access-ş</b> nitted or denied la and deletion. n and deletion. n and deletion. ion and deletion.	red by Neth that will b e first pack ACL or an group com by an ACL	Flow) by entering the disabled are a et was not a S a egress ACL the mand.	ing the <b>loggin</b> as follows: YN packet.	
Command History Usage Guidelines	8.1(1)         If the security appliance that you disable reduce flow-export-syslogs distribution <b>Syslog Message</b> 106015         106023         106100         302013 and 302014         302015 and 302016         302017 and 302018         302020 and 302021	This command water e is configured to expendent syslog messages isable command. The Description A TCP flow was of A flow that is den to an interface three A flow that is perform A TCP connection A UDP connection A GRE connection An ICMP connect	ort NetFlow data, (those also captur syslog messages lenied because th ied by an ingress ough the <b>access-g</b> nitted or denied l and deletion. and deletion. and deletion. ion and deletion. o the security ap	red by Netl that will b e first pack ACL or an group com by an ACL	Flow) by entering e disabled are a et was not a S a egress ACL the mand.	ing the <b>loggin</b> as follows: YN packet.	

ſ

```
<u>Note</u>
```

Although this is a configuration mode command, it is not stored in the configuration. Only the **no logging message xxxxxx** commands are stored in the configuration.

Examples	The following example shows how to disable redundant syslog messages that NetFlow captures and the sample output that appears:
	<pre>hostname(config)# logging flow-export-syslogs disable</pre>
	<pre>hostname(config)# show running-config logging</pre>
	no logging message xxxxx1 no logging message xxxxx2

where the *xxxxx1* and *xxxxx2* are syslog messages that are redundant because the same information has been captured through NetFlow. This command is like a command alias, and will convert to a batch of **no logging message xxxxxx** commands. After you have disabled the syslog messages, you can enable them individually with the **logging message xxxxxx** command, where *xxxxxx* is the specific syslog message number.

<b>Related Commands</b>	Commands	Description
	<b>flow-export destination</b> interface-name ipv4-address   hostname udp-port	Specifies the IP address or hostname of the NetFlow collector, and the UDP port on which the NetFlow collector is listening.
	flow-export template timeout-rate minutes	Controls the interval at which the template information is sent to the NetFlow collector.
	show flow-export counters	Displays a set of runtime counters for NetFlow.

31-33

# logging from-address

To specify the sender e-mail address for syslog messages sent by the ASA, use the **logging from-address** command in global configuration mode. All sent syslog 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 syslog messages appear to come from (for example, cdb@example.com).							
Defaults	No default behavior o	or values.						
Command Modes	The following table s	hows the m	odes in whic	ch you can enter	the comma	ind.		
			Firewall N	lode	Security (	Context		
					Single	Multiple		
	Command Mode		Routed	Transparent		Context	System	
	Global configuration		•	•	•	•		
Command History	Release Mo	adification						
Command History	ReleaseModification7.0(1)This command was introduced.							
Usage Guidelines	Sending syslog messa The address specified						count.	
Examples	To enable logging and	-			es by e-mai	l, use the follo	wing criteria:	
	<ul> <li>Send messages that are critical, alerts, or emergencies.</li> <li>Send messages using ciscosecurityappliance@example.com as the sender address</li> </ul>							
	<ul> <li>Send messages using ciscosecurityappliance@example.com as the sender address.</li> <li>Send messages to admin@example.com</li> </ul>							
	<ul> <li>Send messages to admin@example.com.</li> <li>Send messages using SMTP the primery services primery heat and secondary service sec ante heat</li> </ul>							
	• Send messages using SMTP, the primary servers pri-smtp-host, and secondary server sec-smtp-host Enter the following commands:							
	hostname(config)# 1		able					
	hostname(config)# 1 hostname(config)# 1 hostname(config)# 1 hostname(config)# 1	Logging mai Logging fro Logging red	il critical om-address cipient-add	ress admin@exar	mple.com	xample.com		

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### **Related Commands**

Command	Description
logging enable	Enables logging.
logging mail	Enables the ASA to send syslog messages by e-mail and determines which messages are sent by e-mail.
logging recipient-address	Specifies the e-mail address to which syslog messages are sent.
smtp-server	Configures an SMTP server.
show logging	Displays the enabled logging options.

# logging ftp-bufferwrap

Γ

To enable the ASA 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

no	logging	ftp-bufferwrap
----	---------	----------------

Syntax Description	This command has no arguments or keywords.						
Defaults	The defaults a	are as follows:					
	<ul> <li>Logging to the buffer is disabled.</li> </ul>						
			o an FTP server is	s disabled.			
ommand Modes	The following	g table shows th	he modes in which	h you can enter	the comma	nd.	
			Firewall M	lode	Security C	Context	
	Command Mode				Single	Multiple	
			Routed	Transparent		Context	System
	Global config	guration	•	•	•	•	_
Command History	Release	Modificat	tion				
	7.0(1)	This com	mand was introdu	uced.			
	_	able <b>logging ft</b>	<b>n-hufferwran</b> th		σ buffer da	ta to the FTP s	erver that you
Usage Guidelines		he logging ftp	-server command vent messages to	l. While the ASA			
Usage Guidelines	specify with t continues stor For the ASA otherwise, the	he <b>logging ftp</b> ring any new ev to send log buf	-server command vent messages to fer contents to an ver has data to be	1. While the ASA the log buffer. FTP server, you	A sends log 1 must enal	g data to the FT ole logging to t	TP server, it
Usage Guidelines	specify with t continues stor For the ASA t otherwise, the use the <b>loggir</b>	he <b>logging ftp</b> ring any new ev to send log buf e log buffer nev ng buffered co	-server command vent messages to fer contents to an ver has data to be	l. While the ASA the log buffer. FTP server, you written to flash	A sends log 1 must enal memory. T	g data to the FT ole logging to t o enable loggin	TP server, it the buffer; ng to the buff
Usage Guidelines	specify with t continues stor For the ASA otherwise, the use the <b>loggir</b> The ASA crea	he <b>logging ftp</b> ring any new ev to send log buf e log buffer nev ng buffered co	-server command went messages to fer contents to an ver has data to be mmand. ith names that use	l. While the ASA the log buffer. FTP server, you written to flash	A sends log 1 must enal memory. T	g data to the FT ole logging to t o enable loggin	TP server, it the buffer; ng to the buff

### Examples

The following example shows how to enable logging, enable the log buffer, specify an FTP server, and enable the ASA to write the log buffer to an FTP server. The example specifies an FTP server whose hostname 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)#
```

	Description			
ing buffer	Clears the log buffer of all syslog messages that it contains.			
ıffered	Enables logging to the log buffer.			
ıffer-size	Specifies log buffer size.			
able	Enables logging.			
p-server	Specifies FTP server parameters for use with the <b>logging ftp-bufferwrap</b> command.			
	ing buffer uffered uffer-size nable p-server			
### logging ftp-server

To specify details about the FTP server that the ASA 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* 

Syntax Description	0	0 (Optional) Specifies that an unencrypted (clear text) user password will follow.						
	8	(Option	nal) Specifies that	an encrypted us	er passwor	d will follow.		
	ftp-server	Externa	al FTP server IP a	ddress or hostna	me.			
		Note	If you specify a h network.	iostname, be sure	e that DNS	is operating co	prrectly on you	
	password	<i>password</i> The password for the username specified, which can be up to 64 characters long.						
	path		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:					
		/secur	ity_appliances/s	syslogs/appliar	nce107			
	username	A useri	name that is valid	for logging in to	the FTP s	erver.		
Defaults		· · · · · · · · · · · · · · · · · · ·						
Delaulis	No FTP serve	r is specified	by default.					
Delauits	No FTP serve	r is specified	by default.					
Command Modes			by default. the modes in whic	sh you can enter	the comma	ınd.		
				sh you can enter	the comma	nd.		
					the comma			
			the modes in whic					
		table shows t	the modes in whic		Security (	Context	System	
	The following	table shows t	the modes in whic	1ode	Security (	Context Multiple	System 	
	The following	table shows t	the modes in whic Firewall N Routed	Node Transparent	Security ( Single	Context Multiple Context	System —	
Command Modes	The following	table shows t	the modes in whice Firewall N Routed •	Node Transparent	Security ( Single	Context Multiple Context	System —	
Command Modes	The following Command Mo Global config	table shows t de guration Modifica	the modes in whice Firewall N Routed •	Node Transparent •	Security ( Single	Context Multiple Context	System —	
	The following Command Mo Global config Release	table shows t de guration Modifica This con	the modes in whic Firewall N Routed •	Iode Transparent • uced.	Security ( Single •	Context Multiple Context	System —	
Command Modes	The following Command Mo Global config Release 7.0(1)	table shows t de guration Modifica This con	the modes in whice Firewall N Routed • ttion	Iode Transparent • uced.	Security ( Single •	Context Multiple Context	System —	
Command Modes	The following Command Mo Global config Release 7.0(1)	table shows t de guration Modifica This con	the modes in whice Firewall N Routed • ttion	Iode Transparent • uced.	Security ( Single •	Context Multiple Context	System 	
Command Modes	The following Command Mo Global config Release 7.0(1) 8.3(1) You can only	table shows t de guration Modifica This con Support specify one F	the modes in whice Firewall N Routed • ttion	Iode Transparent • uced. ryption has been	Security C Single • added.	Sontext Multiple Context  • specified, usin	ng the <b>logging</b>	

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I

During bootup or upgrade of the ASA, 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** The following example shows how to enable logging, enable the log buffer, specify an FTP server, and enable the ASA to write the log buffer to an FTP server. This example specifies an FTP server whose hostname is logserver. The server can be accessed with the username, user1 and password, pass1. Log files are to be stored in the /path1 directory:

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

<b>Related Commands</b>	Command	Description
	clear logging buffer	Clears the log buffer of all syslog messages that 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.

### **logging history**

Γ

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	<i>level</i> Sets the maximum severity level for syslog messages. For example, if you set the severity level to 3, then the ASA generates syslog messages for severity levels 3, 2, 1, and 0. You can specify either the number or the name, as follows:						
		• 0 or eme	ergencies—Syst	em is unusable.			
		• 1 or aler	ts—Immediate	action needed.			
		• 2 or crit	ical—Critical co	onditions.			
		• 3 or erre	ors—Error cond	itions.			
		• 4 or war	nings—Warning	g conditions.			
		• 5 or <b>not</b>	ifications—Nori	mal but significa	nt condition	ns.	
		• 6 or info	ormational—Inf	formational mess	ages.		
		• 7 or <b>deb</b>	<b>ugging</b> —Debug	ging messages.			
	logging_list	-		es the messages sts, see the <b>logg</b>			ver. For
Defaults	The ASA does	not log to SN	MP servers by d	efault.			
Command Modes	The following	table shows th	e modes in whic	ch you can enter	the comma	nd.	
			Firewall N	lode	Security C	ontext	
						Multiple	
	0	le	Routed	Transparent	Single	Context	Custom
	Command Mod						System
	Global config	uration	•	•	•	•	System —
Command History		uration Modificat		•	•		System

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#### Examples

The following example shows how to enable SNMP logging and specify that messages of severity 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

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]

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

Syntax Description	format emblem	(Optional) Enables EMBLEM format logging for the syslog server.					
	interface_name	Specifies the interface on which the syslog server resides.					
	port	Indicates the port that the syslog server listens to for messages. Valid port val are 1025 through 65535 for either protocol. If you enter zero as a port numb or use an invalid character or symbol, an error occurs.					
	secure	(Optional) 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 an SSL/TLS- capable syslog server. If an 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 ASA should use TCP to send messages to the syslog server.					
	udp	Specifies that the ASA should use UDP to send messages to the syslog server.					

#### Defaults

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The default protocol is UDP.

The default setting for the format emblem option is false.

The default setting for the secure option is false.

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

Comm

nand History	Release	Modification	
	7.0	This command was introduced.	
	8.0(2)	The <b>secure</b> keyword was added.	
	8.4(1)	Connection blocking can be enabled and disabled.	

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

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

> The default setting for connection blocking is on when the logging host command has been configured to use TCP to send messages to a syslog server. If a TCP-based syslog server is configured, you can disable connection blocking with the logging permit-hostdown command.

۵, Note

When the **tcp** option is used in the **logging host** command, the ASA 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.

٩, Note

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

Sending syslogs over TCP is not supported on a standby ASA.

#### **Examples**

The following example shows how to send syslog 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)#
```

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# 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** *level* [**class** *event\_class*] | **message** *start\_id*[*-end\_id*]}

no logging list name

Syntax Description	class event_class	· •		s of events for sy the class specifie	-	-	-	
		"Usage Guide	elines" sect	tion for a list of	classes.			
	level level	severity level	to 3, then	ity level for sysl the ASA generat cify either the nu	es syslog n	nessages for se	everity levels 3,	
		• 0 or eme	rgencies—	System is unusa	ble.			
		• 1 or aler	<b>ts</b> —Immed	liate action need	ed.			
		• 2 or criti	i <b>cal</b> —Critic	cal conditions.				
		• 3 or erro	ors—Error	conditions.				
		• 4 or war	nings—Wa	rning conditions	5.			
		• 5 or <b>noti</b>	fications—	-Normal but sign	ificant con	ditions.		
	• 6 or informational—Informational messages.							
		• 7 or <b>deb</b>	ugging—D	ebugging messa	ges.			
	messageSpecified a message ID or range of IDs. To look up the default level of a message,start_id[-end_id]use the show logging command or see the syslog messages guide.							
	, , • IT I • D		1		1			
	start_id[-end_id]				ne syslog m	essages guide.		
	start_id[-end_id] name	use the <b>show</b> Sets the loggi			ne syslog m	essages guide.		
					ne syslog m	essages guide.		
Defaults		Sets the logg			ne syslog m	essages guide.		
Defaults	name	Sets the logg			ne syslog m	essages guide.		
	name No default behavio	Sets the logg	ing list nan	ne.				
Defaults Command Modes	name	Sets the logg	ing list nan	ne.				
	name No default behavio	Sets the logg	ing list nan	ne. ch you can enter		nd.		
	name No default behavio	Sets the logg	ing list nan des in whic	ne. ch you can enter	the comma	nd.		
	name No default behavio	Sets the logg	ing list nan des in whic	ne. ch you can enter	the comma	nd. ontext	System	
	name No default behavio The following table	Sets the logg r or values. e shows the mo	des in whic	he. Ch you can enter <b>Node</b>	the comma	nd. ontext Multiple		
	name No default behavio The following table <b>Command Mode</b> Global configurati	Sets the logg r or values. e shows the mo	des in whic Firewall N Routed	he. The you can enter Mode Transparent	the comma Security C Single	nd. ontext Multiple Context	System	

#### 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

The following example shows how to use the logging list command:

hostname(config)# logging list my-list 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 syslog messages that match the criteria specified will be sent to the logging buffer. The criteria specified in this example are:

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

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



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

Related	Comma	ands
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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

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To enable the ASA to send syslog 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 syslog messages, use the **no** form of this command.

logging mail [logging\_list | level]

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

Syntax Description	level	Sets the maximu severity level to and 0. You can s	3, then the A	SA generates sy	slog messa	ges for severit	
		• 0 or emerge	encies—Syst	em is unusable.			
		• 1 or alerts—	–Immediate	action needed.			
		• 2 or critical	—Critical co	onditions.			
		• 3 or errors-	-Error cond	itions.			
		• 4 or warnin	gs—Warnin	g conditions.			
		• 5 or notifica	ations—Nor	mal but significa	nt conditio	ns.	
		• 6 or inform	<b>ational</b> —Inf	formational mess	ages.		
		• 7 or <b>debugg</b>	g <b>ing</b> —Debug	ging messages.			
Defaults Command Modes	Logging_list	Specifies the list information about nail is disabled by	ut creating li				
Command Modes	The following	table shows the m	odes in whic	ch you can enter	the comma	nd.	
Command Modes	The following	table shows the m	odes in whic		the comma		
Command Modes	The following	table shows the m			1		
Command Modes	The following				Security C	Context	System
Command Modes		de	Firewall N	Node	Security C	Context Multiple	System —
Command Modes	Command Mo	de	Firewall N Routed	Node Transparent	Security C Single	Context Multiple Context	System —

#### Examples

To set up the ASA to send syslog 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>	d Commands Command	Description
	logging enable	Enables logging.
	logging from-address	Specifies the e-mail address from which e-mailed syslog 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 syslog messages are sent.
	smtp-server	Configures an SMTP server.

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### logging message

To specify the logging level of a syslog 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.

	logging	message syslog_id	level level				
	no loggi	ing message syslog	_id level level	l			
	logging	message syslog_id					
	no loggi	ing message syslog	_id				
Syntax Description	level level	Sets the maximum severity level to 2 and 0. You can sp	3, then the AS	A generates sys	log messag	es for severity	
		• 0 or emerge	ncies—Syster	n is unusable.			
		• 1 or alerts—	-Immediate ac	ction needed.			
		• 2 or critical-	—Critical con	ditions.			
		• 3 or errors–	-Error condit	ions.			
		• 4 or warning	gs—Warning	conditions.			
		• 5 or <b>notifica</b>	tions—Norm	al but significan	t condition	s.	
		• 6 or informa	ational—Info	rmational messa	ges.		
		• 7 or <b>debugg</b>	ing—Debugg	ing messages.			
	syslog_id	The ID of the sys you want to mod command or see	ify. To look u	p the default lev			
Defaults	By default, a levels.	ll syslog messages	are enabled ar	nd the severity le	vels of all n	nessages are se	t to their default
Command Modes	The followir	ng table shows the r	nodes in whic	h you can enter	the comma	nd.	
			Firewall N	lode	Security C	ontext	
						Multiple	
	Command M		Routed	Transparent	Single	Context	System
	Global conf	iguration	•	•	•	•	•
Command History	Release	Modification					

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Usage Guidelines	You can use the <b>logging message</b> command for two purposes:
	• To control whether a message is enabled or disabled.
	• To control the severity level of a message.
	You can use the <b>show logging</b> command to determine the level currently assigned to a message and whether the message is enabled.
	To prevent the ASA from generating a particular syslog message, use the <b>no</b> form of the <b>logging message</b> command (without the <b>level</b> keyword) in global configuration mode. To let the ASA generate a particular syslog message, use the <b>logging message</b> command (without the <b>level</b> keyword). These two versions of the <b>logging message</b> command can be used in parallel.
Examples	The series of commands in the following example show the use of the <b>logging message</b> command to control both whether a message is enabled and the severity level of the message:
	hostname(config)# <b>show logging message 403503</b> syslog 403503: default-level errors (enabled)
	hostname(config)# <b>logging message 403503 level 1</b> hostname(config)# <b>show logging message 403503</b> syslog 403503: default-level errors, current-level alerts (enabled)
	hostname(config)# <b>no logging message 403503</b> hostname(config)# <b>show logging message 403503</b> syslog 403503: default-level errors, current-level alerts (disabled)
	hostname(config)# <b>logging message 403503</b> hostname(config)# <b>show logging message 403503</b> syslog 403503: default-level errors, current-level alerts (enabled)
	hostname(config)# <b>no logging message 403503 level 3</b> hostname(config)# <b>show logging message 403503</b> syslog 403503: default-level errors (enabled)

<b>Related Commands</b>	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.

### logging monitor

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

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

no logging monitor

Syntax Description	level	severity level		evel for syslog m ASA generates sy r the number or t	slog messa	ges for severit	•
		• <b>0</b> or <b>eme</b>	ergencies—Syst	em is unusable.			
		• 1 or aler	•ts—Immediate	action needed.			
	• 2 or <b>critical</b> —Critical conditions.						
		• 3 or erro	ors—Error cond	itions.			
		• 4 or war	<b>nings</b> —Warning	g conditions.			
		• 5 or <b>not</b> i	ifications—Norr	mal but significa	nt conditio	ns.	
		• 6 or info	rmational—Inf	formational mess	sages.		
		• 7 or <b>deb</b>	<b>ugging</b> —Debug	ging messages.			
	<i>logging_list</i> Specifies the list that identifies the messages to send to the SSH or Telnet session. For information about creating lists, see the <b>logging list</b> command.						
		s not display sy	slog messages i	n SSH and Telne	et sessions l	by default.	
		s not display sy	slog messages i		et sessions l	by default.	
		s not display sy	slog messages i	n SSH and Telne ch you can enter	et sessions l	by default. nd.	
		s not display sy	e modes in whic	n SSH and Telne ch you can enter	et sessions b the comma	by default. nd.	
		s not display sy g table shows th	e modes in whic	n SSH and Telne ch you can enter	et sessions to the comma	by default. nd. <b>Context</b>	System
	The following	s not display sy g table shows th <b>de</b>	rslog messages i e modes in whic Firewall N	n SSH and Telne ch you can enter <b>Node</b>	et sessions to the comma	by default. nd. <b>Context</b> Multiple	System —
Command Modes	The following	s not display sy g table shows th <b>de</b>	rslog messages i e modes in whic Firewall N Routed •	n SSH and Telne ch you can enter Mode Transparent	et sessions to the comma Security C Single	oy default. nd. Context Multiple Context	System —
Defaults Command Modes	The following Command Mo Global config	s not display sy table shows th de guration <b>Modificat</b> i	rslog messages i e modes in whic Firewall N Routed •	n SSH and Telne ch you can enter Mode Transparent •	et sessions to the comma Security C Single	oy default. nd. Context Multiple Context	System —
Command Modes	The following Command Mo Global config Release	s not display sy table shows th de guration <b>Modificat</b> i	rslog messages i e modes in whic Firewall N Routed •	n SSH and Telne ch you can enter Mode Transparent •	et sessions to the comma Security C Single	oy default. nd. Context Multiple Context	System —

#### Examples

The following example shows how to enable the display of syslog messages in console sessions. The use of the **errors** keyword indicates that messages of severity 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.

			Firewall N	lode	Security (	Context	
		_	_			Multiple	
	Command Mo		Routed	-	Single	Context	System
	Global config	guration	•	•	•	•	—
ommand History	Release	Modificati	on				
······,	7.0(1)		nand was introd	uced			
age Guidelines	•	-		protocol for send	-		
sage Guidelines	denies new ne	twork access ses	ssions as a secur	protocol for send ity measure if the ommand to remo	e ASA is ui	hable to reach the	
Usage Guidelines Examples	denies new ne You can use th The following permits new s	twork access ses the <b>logging perm</b> g example makes essions. When t <b>ig logging</b> com	ssions as a secur nit-hostdown co s the status of T the logging period	ity measure if the	e ASA is un ve this res servers im pommand in	nable to reach the triction. relevant to whe cludes in its ou	the syslog ser other the ASA utput the <b>sho</b>

### logging permit-hostdown

Chapter 31

Defaults

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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 ASA to deny new user sessions when a TCP-based syslog server is unavailable, use the **no** form of this command.

By default, if you have enabled logging to a syslog server that uses a TCP connection, the ASA does not allow new network access sessions when the syslog server is unavailable for any reason. The default

#### logging permit-hostdown

no logging permit-hostdown

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

logging asdm through logout message Commands

#### **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

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To specify how many syslog messages the ASA 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_sizeThe 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.						192 messages, ero, the queue nding on the
Defaults	The default qu	ueue size is 512 m	essages.				
Command Modes	The following	table shows the r	nodes in whic	ch you can enter	the comma	ınd.	
			Firewall N	lode	Security (	Context	
						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		s so heavy that the eue size is 1024. C	-			-	
Examples	The following commands:	example shows h	ow to display	the output of the	e logging q	ueue and show	v logging queue
	hostname(con Logging Queu	fig)# <b>logging qu</b> fig)# <b>show loggi</b> e length limit : g on queue, 3513	i <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 syslog messages in the queue are processed by the ASA in the manner dictated by the logging configuration, such as sending syslog 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 ASA was last booted, and that 1 message was discarded. Even though the queue was set for unlimited messages, the message was discarded because no block memory was available to add the message to the queue.

		Description			
log	gging enable	Enables logging.			
she	ow 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 syslog 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

		<ul> <li>(Optional) Time interval (in seconds) to use for measuring the rate at which messages are generated. The valid range of values for <i>interval</i> is 0 through 2147483647.</li> <li>Applies the set rate limits on all syslog messages that belong to a certain severity level. All syslog messages at a specified severity level are rate-limited individually. The valid range for <i>severity_level</i> is 1 through 7.</li> </ul>					
	level severity_level						
	message	Suppresses reporting of this syslog message.					
	num	Number of syslog interval. The valid	-	-	-	-	
	syslog_id	ID of the syslog message to be suppressed. The valid range of 100000-9999999.					
	unlimited	Disables rate limiti	ng, which means	s that there i	is no limit on th	ne logging rat	
	The default setting for The following table sho		ch you can enter	the comma	nd.		
Defaults Command Modes	-			the comma	Context		
	The following table sho	ows the modes in whic	1ode	Security C	Context Multiple	Sustam	
	The following table sho	ows the modes in whic		1	Context	System •	
	The following table sho	ows the modes in whic Firewall N Routed	Node Transparent	Security C Single	Context Multiple Context	-	
	The following table sho	ows the modes in whic Firewall N Routed	Node Transparent	Security C Single	Context Multiple Context	-	

• 3—Error Conditions

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- 4—Warning Conditions
- 5—Normal but significant conditions
- 6—Informational Messages
- 7—Debugging Messages

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

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

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

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

This example suppresses all syslog messages under severity level 6 to the specified rate limit of 1000 in the specified time interval of 600 seconds. Each syslog 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 logging configuration settings.
	show running-config logging rate-limit	Shows the current logging rate limit setting.

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### logging recipient-address

To specify the receiving e-mail address for syslog messages sent by the ASA, use the **logging recipient-address** command in global configuration mode. To remove the receiving e-mail address, use the **no** form of this command.

logging recipient-address address [level level]

no logging recipient-address address [level level]

Syntax Description	address	Specifies	recipient e-ma	il address whe	en sending sys	log messages	by e-mail.	
	level	Indicates t	that a severity	level follows.				
	level	Sets the maximum severity level for syslog messages. For example, if you set the severity level to 3, then the ASA generates syslog messages for severity levels 3, 2, 1, and 0. You can specify either the number or the name, as follows:						
		• 0 or e	mergencies—	System is unu	isable.			
		• 1 or a	lerts—Immed	iate action ne	eded.			
		• 2 or c	ritical—Critic	al conditions.				
		• 3 or e	rrors—Error	conditions.				
		• 4 or w	varnings—Wa	rning conditio	ons.			
		• 5 or n	otifications—	Normal but si	ignificant con	ditions.		
	• 6 or informational—Informational messages.							
		• 7 or <b>d</b>	l <b>ebugging</b> —D	ebugging mes	sages.			
		<b>Note</b> We do not recommend using a severity level greater than 3 with the <b>logging recipient-address</b> command. Higher severity levels are likely to cause dropped syslog messages because of buffer overflow.						
		command command severity le	age severity le overrides the . For example, evel of 7 but th A sends all me , 6, and 7.	message sever if a <b>logging r</b> e <b>logging ma</b> i	rity level spect recipient-add il command sp	ified by the <b>lo</b> ress command pecifies a seve	<b>gging mail</b> l specifies a rity level of	
Defaults	The default value is set to the errors logging level.							
Command Modes	The following table	shows the mo	des in which y	ou can enter	the command.			
			Firewall Mod	e	Security Context			
						Multiple		
	Command Mode		Routed	Transparent	Single	Context	System	

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Global configuration

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Command History	Release	Modification					
	7.0(1)	This command was introduced.					
Usage Guidelines	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 <b>logging mail</b> command. Sending syslog messages by e-mail is enabled by the <b>logging mail</b> command.						
	Use this com	mand to have more urgent messages sent to a larger number of recipients.					
Examples	To set up the	ASA to send syslog 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 foll	owing commands:					
	hostname(con hostname(con	hfig)# logging mail critical hfig)# logging from-address ciscosecurityappliance@example.com hfig)# logging recipient-address admin@example.com hfig)# smtp-server pri-smtp-host sec-smtp-host					
Related Commands	Command	Description					

ated Commands	Command	Description
	logging enable	Enables logging.
	logging from-address	Specifies the e-mail address from which syslog messages appear to come.
	logging mail	Enables the ASA to send syslog 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.

### logging savelog

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

logging savelog [savefile]

Syntax Description	savefile			n memory file na g file using a def	•			
		LOG-YYYY-MM-DD-HHMMSS.TXT						
			•	ar, <i>MM</i> is the me in hours, minute		•	e month, and	
Defaults	The defaults a	are as follows:						
	• Buffer size	ze is 4 KB.						
	• Minimun	n free flash memo	ory is 3 MB.					
	• Maximur	n flash memory a	llocation for b	uffer logging is	1 MB.			
	• The defa	ult log file name i	is described in	the "Syntax Des	scription" s	ection.		
		-		-	-			
Command Modes	The following	g table shows the	modes in whic	h you can enter	the comma	nd.		
			Firewall N	lode	Security Context			
						Multiple		
	Command Mode		Routed	Transparent	Single	Context	System	
	Privileged EX	KEC	•	•	•	_	_	
Command History	Release	Modificatio	n					
	7.0(1)	This comma	and was introd	uced.				
Usage Guidelines		an save the log bu						
		never has data to	be saved to flas	h memory. To ei	nable loggin	ng to the buffer	, use the <b>logging</b>	
	buffered com	imand.						
Note	The <b>logging s</b> command.	avelog command	does not clear	the buffer. To cle	ear the buffe	er, use the <b>clea</b>	r logging buffer	
Examples		g example enables to flash memory				configuration n	node, and saves	

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

#### **Related Commands**

Command	Description
<b>clear logging buffer</b> Clears the log buffer of all syslog messages that 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.

### logging standby

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

#### logging standby

no logging standby

Syntax Description	This command	has no arguments	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 Mode		Security Context		
				Multiple	
Command Mode	Routed	Transparent	Single	Context	System
Global configuration	•	•	•	•	•

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

Usage Guidelines

You can enable **logging standby** to ensure that the syslog messages of the failover standby ASA 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 ASA to send syslog messages to the failover standby ASA. 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

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To specify that syslog 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 syslog messages, use the **no** form of this command.

#### logging timestamp

no logging timestamp

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

**Defaults** The ASA does not include the date and time in syslog messages by default.

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

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

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

**Usage Guidelines** The **logging timestamp** command makes the ASA include a timestamp in all syslog messages.

**Examples** The following example enables the inclusion of timestamp information in all syslog 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 logging	Displays the logging-related portion of the running configuration.

### logging trap

To specify which syslog messages the ASA 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

	<i>level</i> Sets the maximum severity level for syslog messages. For example, if you set the severity level to 3, then the ASA generates syslog messages for severity levels 3, 2, 1, and 0. You can specify either the number or the name, as follows:								
		• <b>0</b> or <b>emer</b>	gencies—Sys	tem is unusable.					
		• 1 or alerts—Immediate action needed.							
		• 2 or critic	al—Critical c	conditions.					
		• 3 or error	rs—Error con	ditions.					
		• 4 or warm	ings—Warnii	ng conditions.					
		• 5 or <b>notif</b>	ications—No	rmal but signific	ant conditi	ons.			
		• 6 or infor	mational—Ir	formational mes	sages.				
		• 7 or <b>debu</b>	<b>gging</b> —Debu	gging messages.					
	logging_list			fies the messages			ver. For		
		information at	bout creating	ists, see the logg	ging list co	mmand.			
Command Modes	The following	table shows the 1	modes in whic						
Command Modes	The following	table shows the r			the comma	Context			
Command Modes	The following			lode			System		
Command Modes		de	Firewall N	lode	Security (	Context Multiple	System —		
Command Modes	Command Mod	de	Firewall N Routed	lode Transparent	Security ( Single	Context Multiple Context	System —		
	Command Mod	de	Firewall N Routed •	lode Transparent	Security ( Single	Context Multiple Context	System —		
Command Modes	<b>Command Mot</b> Global confign	de uration Modification	Firewall N Routed •	lode Transparent •	Security ( Single	Context Multiple Context	System —		

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UDP-based logging does not prevent the ASA from passing traffic if the syslog server fails.

**Examples** The following example shows how to send syslog messages of severity 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)#

<b>Related Commands</b>	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 Mode Security Context				
				Multiple	
Command Mode	Routed	Routed Transparent	Single	Context	System
User EXEC	•	•	•	•	

# Release Modification 7.0(1) This command was introduced.

**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**

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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.
ogout	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	Specifie	s you are cha	nging the text.				
	valueThe actual text to display (maximum 256 characters), or Cascading Style Sheet (CSS) parameters (maximum 256 characters).							
Defaults	The default login	button text is '	'Login".					
	The default login	button style is:	:					
				r:white;font-wei	ght:bold; f	ont-size:80%		
	_		-		-			
Command Modes	The following tab	ole shows the m	odes in whic	h you can enter	the comma	nd:		
			Firewall M	lode	Security C	Multiple		
	Command Mode		Routed	Transparent	Single	Context	System	
	Webvpn customi configuration	zation	•		•			
Command History	Release Modification							
	7.1(1)     This command was introduced.							
Usage Guidelines	The <b>style</b> option a parameters is bey CSS specification the CSS 2.1 Spec www.w3.org/TR/	rond the scope on at the World ification contain	of this docum Wide Web Co ns a convenie	ent. For more in onsortium (W3C	formation () website a	about CSS para at www.w3.org	ameters, consult . Appendix F of	
	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.							
	• 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.							

• 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.

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• 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.								
	style	Specifies you a	-	• •					
	valueThe actual text to display (maximum 256 characters), or Cascading Style Sheet (CSS) parameters (maximum 256 characters).								
lefaults	-	n message is "Please er	•	-					
		n message style is back	-						
Command Modes	The following ta	ble shows the modes in							
			Firewall	Mode	Security	y Context Multiple			
			Routed						
	Command Mode	Command Mode		Transparent	Single	Context	System		
	WebVPN custor	nization configuration	•		•				
Command History	Release	Release Modification							
	7.1(1)This command was introduced.								
	,(1)		wus mito	duceu.					
Jsage Guidelines	The <b>style</b> option parameters is be CSS specificatio the CSS 2.1 Spe	is expressed as any va yond the scope of this of ns at the World Wide V cification contains a co /CSS21/propidx.html.	lid Casca locument Veb Cons	ding Style Shea . For more info ortium (W3C)	rmation a website a	about CSS pa t www.w3.or	rameters, consurg. Appendix F		
Jsage Guidelines	The <b>style</b> option parameters is be CSS specificatio the CSS 2.1 Spe www.w3.org/TR	yond the scope of this of ns at the World Wide V cification contains a co	lid Cascado locument Veb Cons nvenient	ding Style Shea . For more info ortium (W3C) list of CSS par	website a ameters,	about CSS pa t www.w3.01 and is availa	arameters, consu rg. Appendix F o ble at		
Jsage Guidelines	The <b>style</b> option parameters is be CSS specificatio the CSS 2.1 Spe www.w3.org/TR Here are some ti	yond the scope of this of ns at the World Wide W cification contains a co /CSS21/propidx.html. ps for making the most a comma-separated RO	lid Cascae locument Veb Cons nvenient	ding Style Shee . For more info ortium (W3C) list of CSS par a changes to the	website a ameters, WebVP	about CSS pa about CSS pa and is availan N pages—the	arameters, consu rg. Appendix F o ble at e page colors:		
Jsage Guidelines	The <b>style</b> option parameters is be CSS specificatio the CSS 2.1 Spe www.w3.org/TR Here are some ti • You can use recognized i • RGB format	yond the scope of this of ns at the World Wide W cification contains a co /CSS21/propidx.html. ps for making the most a comma-separated RO	lid Cascad locument Veb Cons nvenient common GB value, imal num	ding Style Shee . For more info ortium (W3C) list of CSS par a 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 availal N pages—the or the name	arameters, consu rg. Appendix F o ble at e page colors: of the color if l, green, blue); th		

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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": hostname(config)# webvpn

hostname(config-webvpn)# customization cisco hostname(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								
	value	The actual text to display (maximum 256 characters), or Cascading Style Sheet (CSS) parameters (maximum 256 characters).							
Defaults	The default login	-		ackground-colo	r: #666666	; color: white.			
Command Modes	The following ta	ble shows the	modes in whic	h you can enter	the comma	nd:			
			Firewall N	lode	Security C	ontext			
	Command Mode		Routed	Transparent	Single	Multiple Context	System		
	Webvpn custom configuration		•	_	•				
Command History	Release	Modif	ication						
-	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 scop ons at the Worl cification con /CSS21/propi	e of this docum ld Wide Web C tains a convenie dx.html.	ent. For more in onsortium (W3C ent list of CSS p	formation a c) website a arameters,	about CSS para at www.w3.org and is availabl	ameters, consul Appendix F o e at		
	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.								
			-	umbers from 0 to 1 of intensity of					
	<ul> <li>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>

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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	hostname(config)# w hostname(config-web hostname(config-web	e configures the login title style: ebvpn vpn)# customization cisco vpn-custom)# login-title style background-color: rgb(51,51,255);color: t-family: Algerian; font-size: 12pt; font-style: italic; font-weight:
<b>Related Commands</b>	Command	Description
	login-message	Customizes the login message of the WebVPN login page.
	username-prompt	Customizes the username prompt of the WebVPN login page.
	password-prompt	Customizes the password prompt of the WebVPN login page.
	group-prompt	Customizes the group prompt of the WebVPN login page.

#### 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}}

Syntax 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 def	ault logo is the C	sco logo.					
elduns	The der							
		owing table show	s the modes in whi		-			
		owing table show			the comma	Context		
	The foll	owing table show			Security (		System	
	The foll	nd Mode	Firewall	Mode	Security (	Context Multiple	System	
Command Modes	The foll Comma Webvpp	nd Mode n customization tration	Firewall Routed	Mode	Security ( Single	Context Multiple	System —	

**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: hostname(config)# webvpn

hostname(config-webvpn)# customization cisco
hostname(config-webvpn-custom)#logo file disk0:cisco\_logo.gif

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### 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	Firewall Mode			Security Context		
				Multiple			
<b>Command Mode</b>	Routed	Transparent	Single	Context	System		
User EXEC	•	•	•	•	•		

 Release
 Modification

 7.0(1)
 This command was introduced.

**Usage Guidelines** The **logout** command lets you log out of the ASA. 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 ASA: hostname> logout

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

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#### logout-message

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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

ntax Description	style Specifies you are changing the style.								
	text Specifies you are changing the text.								
	value	value The actual text to display (maximum 256 characters), or Cascading Style Sheet (CSS)							
		parameters (maximur	n 256 characte	rs).					
faults		fault logout message ter	•						
	The de	fault logout message sty	yle is backgrou	nd-color:#99999	9;color:bla	ck.			
				-		_			
mmand Modes	The fol	llowing table shows the	modes in whic	h you can enter	the comma	nd:			
			Firewall N	lode	Security Context				
						Multiple			
	Comma	and Mode	Routed	Transparent	Single	Context	System		
		PN customization uration	•		•	_	_		
Command History	Boloas	Release Modification							
ninianu fiistory									
	7.1(1)		ommand was i	ntroduced.					
sage Guidelines	The str	via antion is avaraged	a any valid Ca	aading Style Sh	act (CSS)	perematers D	a so that the		
saye duluelilles		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								
	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-separated RGB value, an HTML color value, or the name of the color if recognized in HTML.								
			arated RGB va	lue, an HTML co	Jioi value,	or the name of	the color II		

• 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:

hostname(config)# webvpn hostname(config-webvpn)# customization cisco hostname(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.		