C H A P T E R 1

Overview

Read through the entire guide before beginning any of the procedures in this book.

Warning   **Only trained and qualified personnel should install, replace, or service this equipment.** Statement 49

Caution   Read the safety warnings in the *Regulatory Compliance and Safety Information for the Cisco ASA 5500 Series* and follow proper safety procedures when performing these steps.

This chapter describes the product and the memory requirements, and includes the following topics:

Note   The illustrations in this chapter show the Cisco ASA 5540 adaptive security appliance. The Cisco ASA 5510 and Cisco ASA 5520 adaptive security appliance look identical, containing the same back panel features and indicators. The Cisco ASA 5550 has a fixed configuration with an embedded 4GE slot as shown in Figure 1-3.

Product Overview

This section describes the front and rear panels. Figure 1-1 shows the front panel LEDs.

Figure 1-1   Front Panel LEDs
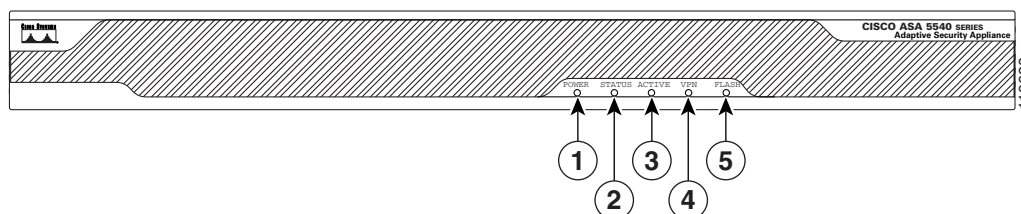
	LED	Color	State	Description
1	Power	Green	On	The system has power.
2	Status	Green	Flashing	The power-up diagnostics are running or the system is booting.
			Solid	The system has passed power-up diagnostics.
		Amber	Solid	The power-up diagnostics have failed.
3	Active	Green	Solid	This unit is the Active unit in the failover pair.
		Amber	Solid	This unit is the Standby unit.
4	VPN	Green	Solid	A VPN tunnel has been established.
5	Flash	Green	Solid	The CompactFlash is being accessed.

Figure 1-2 shows the rear panel.

Figure 1-2   Rear Panel LEDs and Ports (AC Power Supply Model Shown)
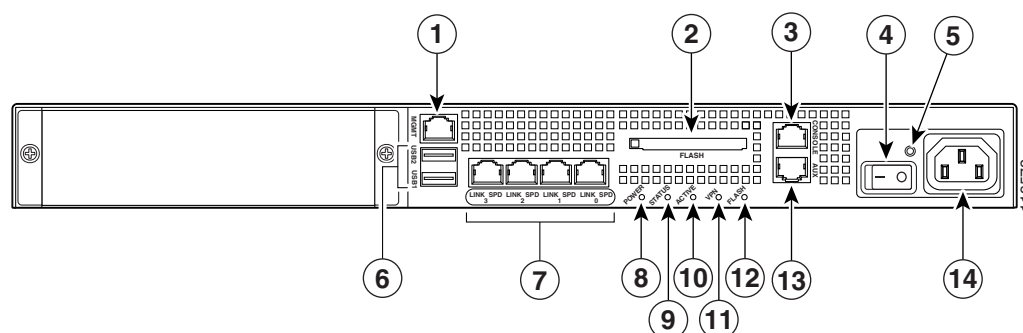
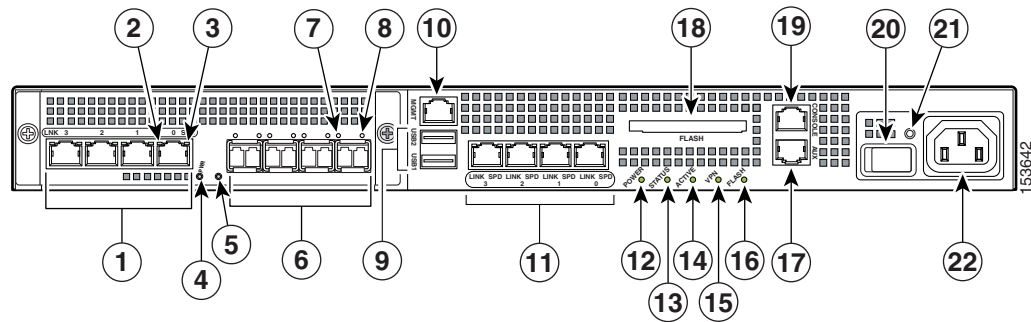| **1**	Management port[1]	**6**	USB 2.0 interfaces[2]	**11**	VPN LED
2	External CompactFlash slot	**7**	Network interfaces[3]	**12**	Flash LED
3	Serial Console port	**8**	Power indicator LED	**13**	AUX port[4]
4	Power switch	**9**	Status indicator LED	**14**	Power connector
5	Power indicator LED	**10**	Active LED		

1. The management 0/0 interface is a Fast Ethernet interface designed for management traffic only.

2. Not supported at this time.

3. GigabitEthernet interfaces, from right to left, GigabitEthernet 0/0, GigabitEthernet 0/1, GigabitEthernet 0/2, and GigabitEthernet 0/3.

4. The RJ-45 Auxiliary port (labeled AUX on the chassis) is reserved for internal use at Cisco. The port is not functional in shipping versions of the chassis; therefore, customers cannot connect to this port to run the adaptive security appliance CLI.

For more information about the Management port, see the **management only** command in the *Cisco Security Appliance Command Reference.*

The Cisco ASA 5550 has a fixed configuration with an embedded 4GE slot as shown in Figure 1-3.

Figure 1-3   Rear Panel LEDs and Ports for the Cisco ASA 5550

1	RJ-45 ports[1]	**9**	USB 2.0 interfaces[2]	**17**	AUX port
2	RJ-45 Link LED	**10**	Management port[3]	**18**	External CompactFlash slot
3	RJ-45 Speed LED	**11**	Network interfaces[4]	**19**	Serial Console port
4	Power LED	**12**	Power indicator LED	**20**	Power switch
5	Status LED	**13**	Status indicator LED	**21**	Power indicator LED
6	SFP ports[5]	**14**	Active LED	**22**	Power connector
7	SFP Link LED	**15**	VPN LED		
8	SFP Speed LED	**16**	Flash LED		

1. GigabitEthernet ports, from right to left, GigabitEthernet 1/0, GigabitEthernet 1/1, GigabitEthernet 1/2, and GigabitEthernet 1/3

2. Not supported at this time.

3. The management 0/0 interface is a Fast Ethernet interface designed for management traffic only.

4. GigabitEthernet interfaces, from right to left, GigabitEthernet 0/0, GigabitEthernet 0/1, GigabitEthernet 0/2, and GigabitEthernet 0/3.

5. SFP ports, from right to left, GigabitEthernet 1/0, GigabitEthernet 1/1, GigabitEthernet 1/2, and GigabitEthernet 1/3

Table 1-1 describes the 4GE SSM LEDs.

Table 1-1   4GE SSM LEDs for the Cisco ASA 5550

	LED	Color	State	Description
2, 7	LINK	Green	Solid	There is an Ethernet link.
			Flashing	There is Ethernet activity.

Table 1-1   4GE SSM LEDs (continued) for the Cisco ASA 5550

	LED	Color	State	Description
3, 8	SPEED	Off	10 MB	There is no network activity.
		Green	100 MB	There is network activity at 100 Mbps.
		Amber	1000 MB (GigE)	There is network activity at 1000 Mbps.
4	POWER	Green	On	The system has power.
5	STATUS	Green	Flashing	The system is booting.
		Green	Solid	The system booted correctly.
		Amber	Solid	The system diagnostics failed.

Figure 1-4 shows the adaptive security appliance rear panel LEDs.

Figure 1-4   Rear Panel Link and Speed Indicator LEDs
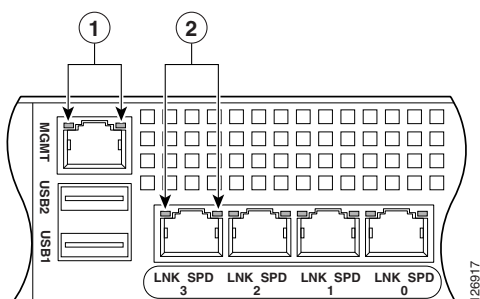
1	MGMT indicator LEDs	**2**	Network interface LEDs

Table 1-2 lists the rear MGMT and Network interface LEDs.

Table 1-2   Link and Speed LEDs

Indicator	Color	Description
Left side	Solid green	Physical link
	Green flashing	Network activity
Right side	Not lit	10 Mbps
	Green	100 Mbps
	Amber	1000 Mbps

Note   The Cisco ASA 5510 adaptive security appliance supports only 10/100BaseTX. The Cisco ASA 5520 and the Cisco ASA 5540 support 1000BaseT.

Memory Requirements

Table 1-3 lists the standard and recommended flash memory and DRAM. Note that the shipping DRAM increased after February 2010; the DRAM requirements for 8.3 and higher match the newer default shipping sizes. See Memory Upgrade Kits, page 1-5 for the information to order an upgrade kit. The newer default shipping DRAM is the current maximum DRAM you can install in your unit.

Table 1-3   Standard Memory Requirements for the Cisco ASA Series

ASA Model	Internal Flash Memory (Default Shipping)[1,2]	DRAM (Default Shipping)	
		Before Feb. 2010	After Feb. 2010 (Required for 8.3 and Higher)
5510	256 MB	256 MB	**1 GB**
5520	256 MB	512 MB	**2 GB**
5540	256 MB	1 GB	**2 GB**
5550	256 MB	4 GB	4GB

1. For the ASA 5510 through 5550, you might need to upgrade the internal flash memory to 512 MB or add external flash memory if you load multiple images of the AnyConnect client along with one or more images of the ASA software, ASDM, client/server plugins, or Cisco Secure Desktop. In particular, you might need to upgrade for multiple AnyConnect 3.0 and higher clients with optional modules. The ASA 5505 does not have a flash memory upgrade available.

2. The default internal flash memory for some models was 64 MB in the past; if you have one of these early units, we recommend upgrading your flash memory to at least the new shipping default.

In a failover configuration, the two units must have the same hardware configuration. They must be the same model, have the same number and types of interfaces, and the same amount of RAM.

Note   The two units do not have to have the same size Flash memory. If using units with different Flash memory sizes in your failover configuration, make sure the unit with the smaller Flash memory has enough space to accommodate the software image files and the configuration files. If it does not, configuration synchronization from the unit with the larger Flash memory to the unit with the smaller Flash memory will fail.

For more information, see the *Cisco Security Appliance Command Line Configuration Guide*.

Memory Upgrade Kits

Table 1-4 lists the DRAM upgrade kits.

Table 1-4   DRAM Upgrade Kits

Model	Size	Part Number
ASA 5510[1]	1 GB	ASA5510-MEM-1GB=
ASA 5520	2 GB	ASA5520-MEM-2GB=
ASA 5540	2 GB	ASA5540-MEM-2GB=

1. If you previously purchased the 512 MB upgrade kit for the ASA 5510 (ASA5510-MEM-512=), you must upgrade to the 1 GB memory upgrade kit to run Version 8.3.

Table 1-5 lists the CompactFlash upgrade kits available for the ASA 5510 through ASA 5550, for use as internal or external flash memory.

Table 1-5   CompactFlash Upgrade Kits

Model	Size	Part Number
ASA 5510 through ASA 5550	256 MB	ASA5500-CF-256MB=
ASA 5510 through ASA 5550	512 MB	ASA5500-CF-512MB=

Memory Requirements for Software Version 8.3 and Later

For information on memory requirements for the adaptive security appliance for software Version 8.3 or later, go to:
http://www.cisco.com/en/US/prod/collateral/vpndevc/ps6032/ps6094/ps6120/product_bulletin_c25-586414.html