QUICK START GUIDE

Cisco ASA Services Module

Related Documentation

To access all documents related to this product, go to:

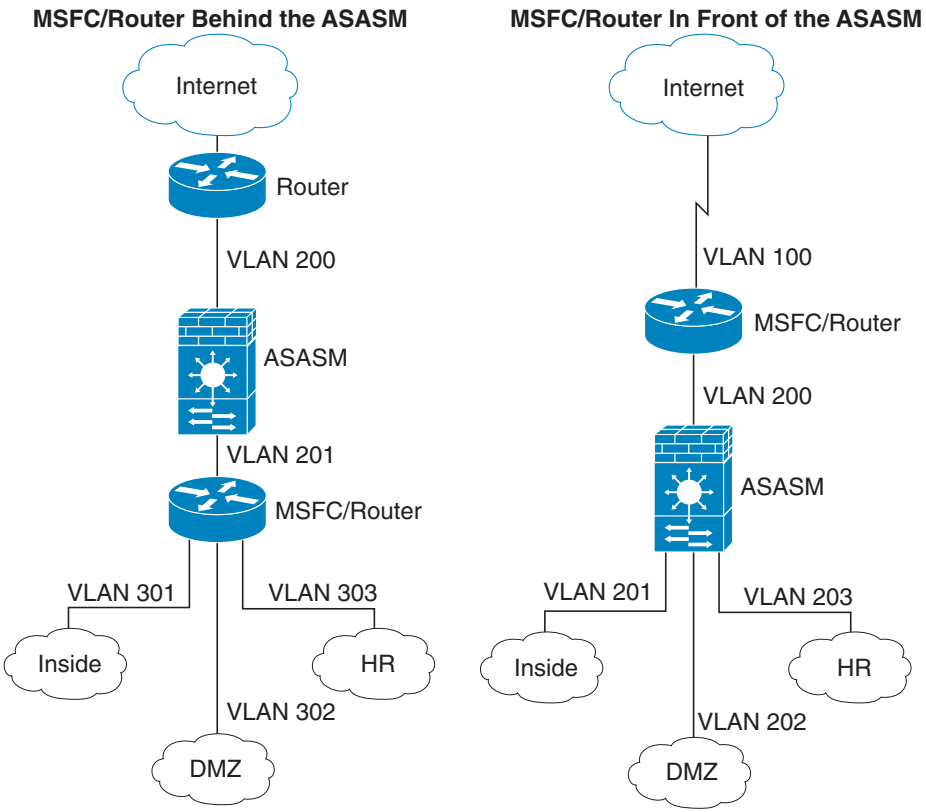
http://www.cisco.com/en/US/docs/security/asa/roadmap/asaroadmap.html

1 Information About the ASA Services Module in the Switch Network

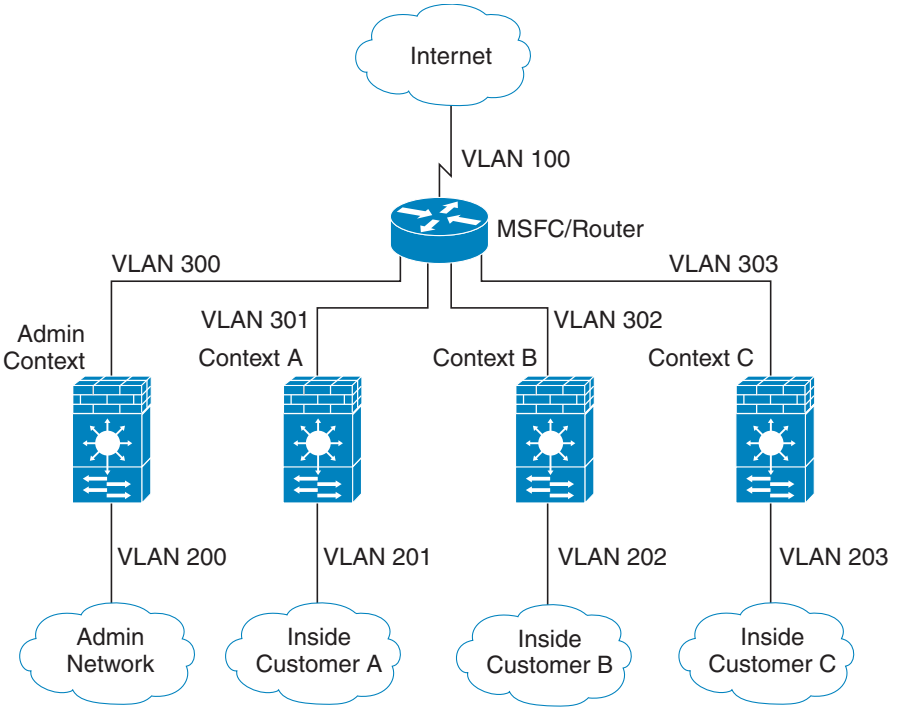
For switch and software compatibility with the ASA Services Module (ASASM), see the following: http://www.cisco.com/en/US/docs/security/asa/compatibility/asamatrx.html. The switch runs Cisco IOS software on both the switch supervisor engine and the integrated Multilayer Switch Feature Card (MSFC). The ASASM runs its own operating system.

Although you need the MSFC as part of your system, you do not have to use it. If you choose to do so, you can assign one or more VLAN interfaces to the MSFC (known as switched virtual interfaces (SVIs)). You can alternatively use an external router instead of the MSFC.

In single context mode, you can place the MSFC or router in front of the ASASM or behind the ASASM; location depends on the VLANs that you assign to the ASASM interfaces.



For multiple context mode, if you place the MSFC or router behind the ASASM, you should only connect it to a single context. If you connect it to multiple contexts, the MSFC/router will route between the contexts, which might not be your intention. The typical scenario for multiple contexts is to use a router in front of all the contexts to route between the Internet and the switched networks.



2 Verifying the Module Installation

Verify that the switch acknowledges the ASASM and has brought it online. (If you need to install your ASASM, see the module installation guide on Cisco.com.) Enter the following command to ensure that the Status column shows "Ok" for the ASASM:

show module [**switch** {**1** |**2**}] [*mod-num* | **all**]

For a switch in a VSS, enter the **switch** argument.

For example:

```
Router# show module
Mod Ports Card Type                                Model              Serial No.
--- ----- -------------------------------------- ------------------ -----------
 2    3  ASA Service Module                      WS-SVC-ASA-SM1     SAD143502E8

Mod MAC addresses                          Hw     Fw           Sw           Status
--- -------------------------------------- ------ ------------ ------------ -------
 2  0022.bdd4.016f to 0022.bdd4.017e   0.201 12.2(2010080 12.2(2010121 Ok
...
```

3 Assigning VLANs to the ASA Services Module

The ASASM does not include any external physical interfaces. Instead, it uses VLAN interfaces passed down from the supervisor. Perform the following steps at the switch CLI to pass down VLANs from the supervisor:

	Command	Purpose

Step 1	**firewall vlan-group** *firewall_group_num vlan_range*
	
	Example:
	`Router(config)# firewall vlan-group 50 55-57`
	`Router(config)# firewall vlan-group 51 58-63`
	`Router(config)# firewall vlan-group 52 64,66-74`
		Assigns VLANs to a firewall group.

Step 2	**firewall** [**switch** {**1** |**2**}] **module** *module_number* **vlan-group** *firewall_group_num*
	
	Example:
	`Router(config)# firewall module 5 vlan-group 50,52`
	`Router(config)# firewall module 8 vlan-group 51,52`
		Assigns the firewall groups to the ASASM. For a switch in a VSS, enter the **switch** argument.

4 Using the MSFC as a Directly-Connected Router

If you want to use the MSFC as a directly-connected router (for example, as the default gateway connected to the ASASM outside interface), then add an ASASM VLAN interface to the MSFC as a switched virtual interface (SVI). By default, you can add only one SVI; to add multiple SVIs, and understand the caveats for multiple SVIs, see the configuration guide on Cisco.com.

Perform the following steps at the switch CLI:

	Command	Purpose
Step 1	**interface vlan** *vlan_number* **Example:** `Router(config)# interface vlan 100`	Adds a VLAN interface to the MSFC.
Step 2	**ip address** *address mask* **Example:** `Router(config)# ip address 192.168.1.2 255.255.255.0`	Sets the IP address for this interface on the MSFC.
Step 3	**no shutdown** **Example:** `Router(config)# no shutdown`	Enables the interface.

5 Logging Into the ASA Services Module

From the switch CLI, you can connect to a virtual console session on the ASASM:

	Command	Purpose

Step 1	**service-module session** [**switch** {**1** |**2**}] **slot** *number*
	
	Example:
	`Router# service-module session slot 4`
	`hostname>`
		Connects to the ASASM. For a switch in a VSS, enter the **switch** argument.
		You access user EXEC mode.

Step 2	**enable**
	
	Example:
	`hostname> enable`
	`Password:`
	`hostname#`
		Accesses privileged EXEC mode, which is the highest privilege level.
		Enter the enable password at the prompt. By default, the password is blank.

Step 3	**configure terminal**
	
	Example:
	`hostname# configure terminal`
	`hostname(config)#`
		Accesses global configuration mode.

Logging Out of the ASA Services Module

If you do not log out of the ASASM, the console connection persists; there is no timeout. To end the ASASM console session and access the switch CLI, perform the following steps.

To kill another user's active connection, which may have been unintentionally left open, see the configuration guide.

Step 1 To return to the switch CLI, type:

Ctrl-Shift-6, x

You return to the switch prompt.

Note: Shift-6 on US and UK keyboards issues the caret (^) character. If you have a different keyboard and cannot issue the caret (^) character as a standalone character, you can temporarily change the escape character to a different character. In Cisco IOS, before you session to the ASASM, use the **terminal escape-character** *ascii_number* command. For example, to temporarily change the sequence to Ctrl-w, x, enter **terminal escape-character 23**.

6 Configuring ASDM Connectivity

Because the ASASM does not have physical interfaces, it does not come pre-configured for ASDM access; you must configure ASDM access using the CLI on the ASASM.

	Command	Purpose
Step 1	(Optional) **`firewall transparent`** **Example:** `hostname(config)# firewall transparent`	Enables transparent firewall mode. This command clears your configuration. See the configuration guide for more information.

	Command	Purpose
Step 2	Do one of the following to configure a management interface, depending on your mode:	
	Routed mode: **interface vlan** *number* **ip address** *ip_address* [*mask*] **nameif** *name* **security-level** *level* **Example:** hostname(config)# interface vlan 1 hostname(config-if)# ip address 192.168.1.1 255.255.255.0 hostname(config-if)# nameif inside hostname(config-if)# security-level 100	Configures an interface in routed mode. The **security_level** is a number between 1 and 100, where 100 is the most secure.
	Transparent mode: **interface bvi** *bvi_number* **ip address** *ip_address* [*mask*] **interface vlan** *number* **bridge-group** *bvi_number* **nameif** *name* **security-level** *level* **Example:** hostname(config)# interface bvi 1 hostname(config-if)# ip address 192.168.1.1 255.255.255.0 hostname(config)# interface vlan 1 hostname(config-if)# bridge-group 1 hostname(config-if)# nameif inside hostname(config-if)# security-level 100	Configures a bridge virtual interface and assigns a management VLAN to the bridge group. The **security_level** is a number between 1 and 100, where 100 is the most secure.
Step 3	**dhcpd address** *ip_address-ip_address interface_name* **dhcpd enable** *interface_name* **Example:** hostname(config)# dhcpd address 192.168.1.2-192.168.1.254 inside hostname(config)# dhcpd enable inside	Enables DHCP for the management host on the management interface network. Make sure you do not include the management address in the range.

	Command	Purpose
Step 4	**http server enable** **Example:** `hostname(config)# http server enable`	Enables the HTTP server for ASDM.
Step 5	**http** *ip_address mask interface_name* **Example:** `hostname(config)# http 192.168.1.0 255.255.255.0 inside`	Allows the management host to access ASDM.
Step 6	**write memory** **Example:** `hostname(config)# write memory`	Saves the configuration.
Step 7	(Optional) **mode multiple** **Example:** `hostname(config)# mode multiple`	Sets the mode to multiple mode. When prompted, confirm that you want to convert the existing configuration to be the admin context. You are then prompted to reload the ASASM. See the configuration guide for more information.

7 Launching ASDM

Using ASDM, you can use wizards to configure basic and advanced features. ASDM is a graphical user interface that allows you to manage the ASASM from any location by using a web browser.

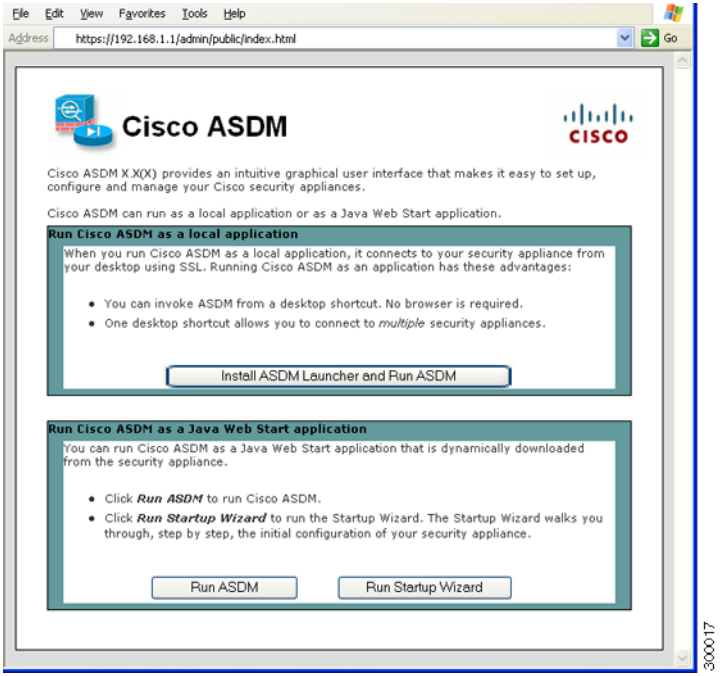
See the ASDM release notes on Cisco.com for the requirements to run ASDM.

Step 1 On the PC connected to the ASASM management VLAN, launch a web browser.

Step 2 In the Address field, enter the following URL:

https://*management_ip_address***/admin**

The Cisco ASDM web page appears.



Step 3 Click **Run Startup Wizard**.

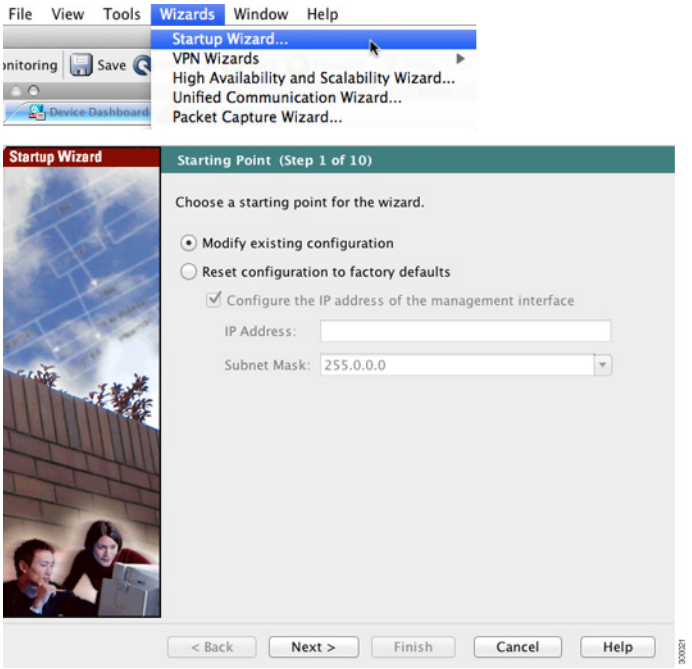
Step 4 Accept any certificates according to the dialog boxes that appear. The Cisco ASDM-IDM Launcher appears.

Step 5 Leave the username and password fields empty, and click **OK**. The main ASDM window appears and the Startup Wizard opens.

8 Running the Startup Wizard

Run the **Startup Wizard** so that you can customize the security policy to suit your deployment. Using the startup wizard, you can set the following:

- Hostname
- Domain name
- Administrative passwords
- Interfaces
- IP addresses
- Static routes
- DHCP server
- Network address translation rules
- and more...

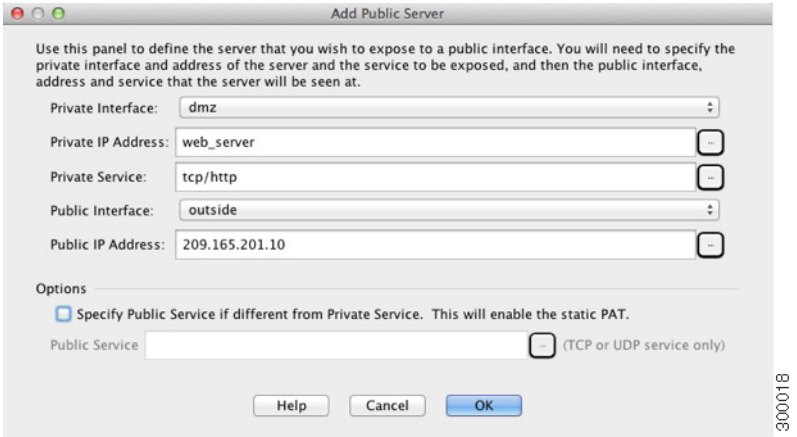


Step 1 If the wizard is not already running, in the main ASDM window, choose **Wizards > Startup Wizard**.

Step 2 Follow the instructions in the Startup Wizard to configure your ASASM. (For information about any wizard field, click **Help**.)

9 (Optional) Allowing Access to Public Servers Behind the ASA Services Module

The Public Server pane automatically configures the security policy to make an inside server accessible from the Internet. As a business owner, you might have internal network services, such as a web and FTP server, that need to be available to an outside user. You can place these services on a separate network behind the ASASM, called a demilitarized zone (DMZ). By placing the public servers on the DMZ, any attacks launched against the public servers do not affect your inside networks.



Step 1 In the main ASDM window, choose **Configuration > Firewall > Public Servers**. The Public Server pane appears.

Step 2 Click **Add**, then enter the public server settings in the Add Public Server dialog box. (For information about any field, click **Help**.)

Step 3 Click **OK**. The server appears in the list.

Step 4 Click **Apply** to submit the configuration to the ASASM.

10 (Optional) Running Other Wizards in ASDM

You can optionally run the following additional wizards in ASDM:

- High Availability and Scalability Wizard

  Configure active/active or active/standby failover, or VPN cluster load balancing.

- Packet Capture Wizard

  Configure and run packet capture. The wizard will run one packet capture on each of the ingress and egress interfaces. After capturing packets, you can save the packet captures to your PC for examination and replay in the packet analyzer.

11 Advanced Configuration

To continue configuring your ASASM, see the documents available for your software version at:

http://www.cisco.com/en/US/docs/security/asa/roadmap/asaroadmap.html

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