Release Notes for Cisco Secure Firewall ASDM, 7.23(x)

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Release Notes for Cisco Secure Firewall ASDM, 7.23(x)

This document contains release information for ASDM version 7.23(x) for the Secure Firewall ASA.

Important Notes

- **The ASA SSH stack was deprecated in 9.23**—You can no longer use the ASA SSH stack. The Cisco SSH stack is now the only stack. Because the Cisco SSH stack does not support EDDSA, before you upgrade you must change your configuration for a supported key pair:
  1. Generate the default key pair.

     crypto key generate {**ecdsa elliptic-curve** *size* | **rsa modulus** *size*}

     Do not add the **label** keyword; SSH only uses the default key pair (named Default-*type*-Key).
  2. If you configured the **ssh key-exchange hostkey eddsa** command, you need to remove it with the **no** form. If you use this command, you may get unexpected results.

System Requirements

ASDM requires a computer with a CPU with at least 4 cores. Fewer cores can result in high memory usage.

ASDM Java Requirements

You can install ASDM using Oracle JRE 8.0 (**asdm-***version***.bin**) or OpenJRE 1.8.x (**asdm-openjre-***version***.bin**).

The Oracle version of ASDM is included in the ASA package; if you want to use the OpenJRE version, you will need to copy it to the ASA and configure the ASA to use that version of ASDM.

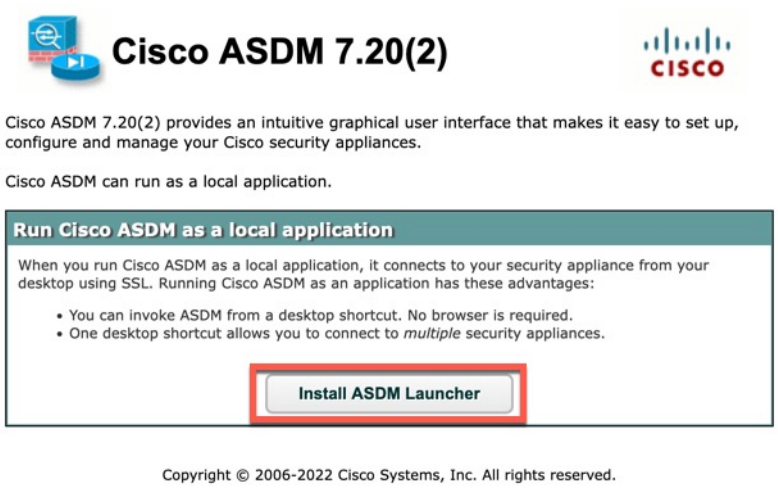
Note ASDM is not supported on Linux.

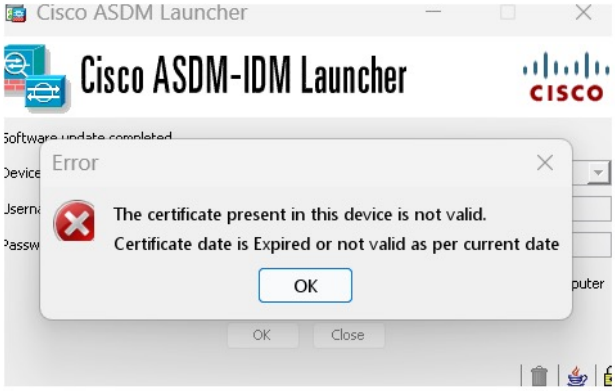
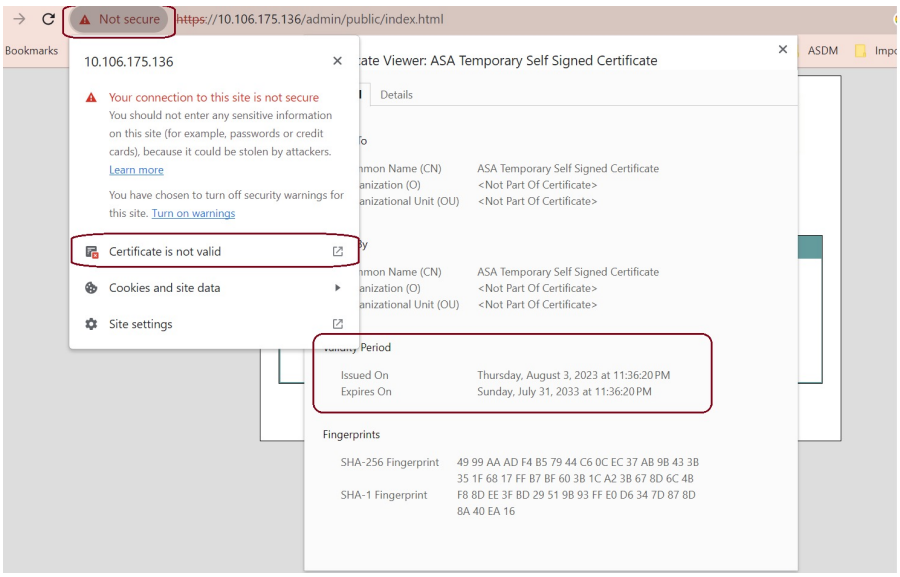
Table 1: ASDM Operating System and Browser Requirements

Operating System	Browser			Oracle JRE	OpenJRE
	Firefox	Safari	Chrome		
Microsoft Windows (English and Japanese): • 11 • 10 **Note** See Windows 10 in ASDM Compatibility Notes, on page 2 if you have problems with the ASDM shortcut. • 8 • 7 • Server 2016 and Server 2019 • Server 2012 R2 • Server 2012 • Server 2008	Yes	No support	Yes	8.0 version 8u261 or later	1.8 **Note** No support for Windows 7 or 10 32-bit
Apple OS X 10.4 and later	Yes	Yes	Yes (64-bit version only)	8.0 version 8u261 or later	1.8

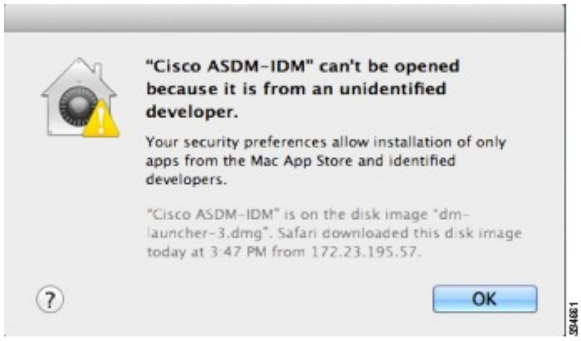
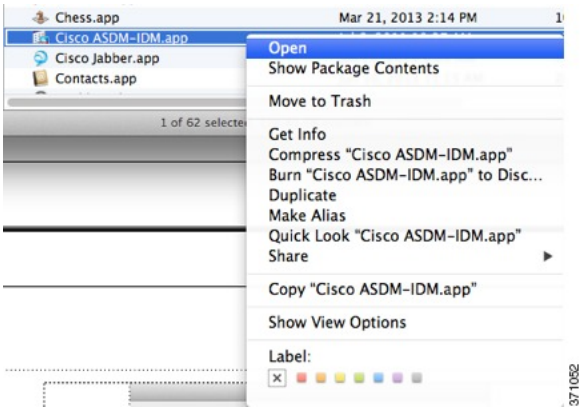
ASDM Compatibility Notes

The following table lists compatibility caveats for ASDM.

Conditions	Notes
ASDM Launcher compatibility with ASDM version	"**Unable to Launch Device Manager**" error message. If you upgrade to a new ASDM version and then get this error, you may need to re-install the latest Launcher. **1.** Open the ASDM web page on the ASA: https://<asa_ip_address>. **2.** Click **Install ASDM Launcher**. ***Figure 1: Install ASDM Launcher***  **3.** Leave the username and password fields empty (for a new installation), and click **OK**. With no HTTPS authentication configured, you can gain access to ASDM with no username and the **enable** password, which is blank by default. When you enter the **enable** command at the CLI for the first time, you are prompted to change the password; this behavior is not enforced when you log into ASDM. We suggest that you change the enable password as soon as possible so that it does not remain blank. **Note**: If you enabled HTTPS authentication, enter your username and associated password. Even without authentication, if you enter a username and password at the login screen (instead of leaving the username blank), ASDM checks the local database for a match.

Conditions	Notes
Self-signed certificate not valid due to a time and date mismatch with ASA	ASDM validates the self-signed SSL certificate, and if the ASA's date is not within the certificate's **Issued On** and **Expires On** date, ASDM will not launch. If there is a time and date mismatch, you will see the following error: ***Figure 2: Certificate Not Valid***  **To fix the issue:** Set the correct time on the ASA and reload. To check the certificate dates, (example shown is Chrome): **1.** Go to https://*device_ip*. **2.** Click the **Not secure** text in the menu bar. **3.** Click **Certificate is not valid** to open the Certificate Viewer. **4.** Check the Validity Period. ***Figure 3: Certificate Viewer*** 

Conditions	Notes
Windows Active Directory directory access	In some cases, Active Directory settings for Windows users may restrict access to program file locations needed to successfully launch ASDM on Windows. Access is needed to the following directories: • Desktop folder • C:\Windows\System32C:\Users\<username>\.asdm • C:\Program Files (x86)\Cisco Systems If your Active Directory is restricting directory access, you need to request access from your Active Directory administrator.
Windows 10	"**This app can't run on your PC**" error message. When you install the ASDM Launcher, Windows 10 might replace the ASDM shortcut target with the Windows Scripting Host path, which causes this error. To fix the shortcut target: **1.** Choose **Start** > **Cisco ASDM-IDM Launcher**, and right-click the **Cisco ASDM-IDM Launcher** application. **2.** Choose **More** > **Open file location**. Windows opens the directory with the shortcut icon. **3.** Right click the shortcut icon, and choose **Properties**. **4.** Change the **Target** to: **C:\Windows\System32\wscript.exe invisible.vbs run.bat** **5.** Click **OK**.
OS X	On OS X, you may be prompted to install Java the first time you run ASDM; follow the prompts as necessary. ASDM will launch after the installation completes.

Conditions	Notes
OS X 10.8 and later	You need to allow ASDM to run because it is not signed with an Apple Developer ID. If you do not change your security preferences, you see an error screen.  **1.** To allow ASDM to run, right-click (or Ctrl-Click) the Cisco ASDM-IDM Launcher icon, and choose **Open**.  **2.** You see a similar error screen; however, you can open ASDM from this screen. Click **Open**. The ASDM-IDM Launcher opens. 

Conditions	Notes
(ASA 5500 and ISA 3000) Requires Strong Encryption license (3DES/AES) on ASA **Note** Smart licensing models allow access with ASDM without the Strong Encryption license.	ASDM requires an SSL connection to the ASA. You can request a 3DES PAK license from Cisco: **1.** Go to https://www.cisco.com/go/license. **2.** Under **Traditional Licenses**, click **Access LRP**. **3.** Click **Get Licenses** and then choose **IPS, Crypto, Other...** from the drop-down list. **4.** Type **ASA** in to the **Search by Keyword** field. **5.** Select **Cisco ASA 3DES/AES License** in the **Product** list, and click **Next**. **6.** Enter the serial number of the ASA, and follow the prompts to request a 3DES/AES license for the ASA.
• Self-signed certificate or an untrusted certificate • IPv6 • Firefox and Safari	When the ASA uses a self-signed certificate or an untrusted certificate, Firefox and Safari are unable to add security exceptions when browsing using HTTPS over IPv6. See https://bugzilla.mozilla.org/show_bug.cgi?id=633001. This caveat affects all SSL connections originating from Firefox or Safari to the ASA (including ASDM connections). To avoid this caveat, configure a proper certificate for the ASA that is issued by a trusted certificate authority.
• SSL encryption on the ASA must include both RC4-MD5 and RC4-SHA1 or disable SSL false start in Chrome. • Chrome	If you change the SSL encryption on the ASA to exclude both RC4-MD5 and RC4-SHA1 algorithms (these algorithms are enabled by default), then Chrome cannot launch ASDM due to the Chrome “SSL false start” feature. We suggest re-enabling one of these algorithms (see the **Configuration** > **Device Management** > **Advanced** > **SSL Settings** pane); or you can disable SSL false start in Chrome using the **--disable-ssl-false-start** flag according to Run Chromium with flags.

Install an Identity Certificate for ASDM

When using Java 7 update 51 and later, the ASDM Launcher requires a trusted certificate. An easy approach to fulfill the certificate requirements is to install a self-signed identity certificate.

See Install an Identity Certificate for ASDM to install a self-signed identity certificate on the ASA for use with ASDM, and to register the certificate with Java.

Increase the ASDM Configuration Memory

ASDM supports a maximum configuration size of 512 KB. If you exceed this amount you may experience performance issues. For example, when you load the configuration, the status dialog box shows the percentage of the configuration that is complete, yet with large configurations it stops incrementing and appears to suspend operation, even though ASDM might still be processing the configuration. If this situation occurs, we recommend that you consider increasing the ASDM system heap memory. To confirm that you are experiencing memory exhaustion, monitor the Java console for the "java.lang.OutOfMemoryError" message.

In addition, we recommend reducing your configuration size if possible, for example, by removing unused objects.

Increase the ASDM Configuration Memory in Windows

To increase the ASDM heap memory size, edit the **run.bat** file by performing the following procedure.

Procedure

Step 1 Go to the ASDM installation directory, for example C:\Program Files (x86)\Cisco Systems\ASDM.

Step 2 Edit the **run.bat** file with any text editor.

Step 3 In the line that starts with "start javaw.exe", change the argument prefixed with "-Xmx" to specify your desired heap size. For example, change it to -Xmx768M for 768 MB or -Xmx1G for 1 GB.

For very large configurations, you may need to specify a heap size up to 2 GB.

Step 4 Save the **run.bat** file.

Increase the ASDM Configuration Memory in Mac OS

To increase the ASDM heap memory size, edit the **Info.plist** file by performing the following procedure.

Procedure

Step 1 Right-click the **Cisco ASDM-IDM** icon, and choose **Show Package Contents**.

Step 2 In the **Contents** folder, double-click the **Info.plist** file. If you have Developer tools installed, it opens in the **Property List Editor**. Otherwise, it opens in **TextEdit**.

Step 3 Under **Java** > **VMOptions**, change the string prefixed with "-Xmx" to specify your desired heap size. For example, change it to -Xmx768M for 768 MB or -Xmx1G for 1 GB.

```
<key>CFBundleIconFile</key>
<string>asdm32.icns</string>

<key>VMOptions</key>
<string>-Xms64m -Xmx512m</string>


<key>CFBundleDocumentTypes</key>
<array>
```

For very large configurations, you may need to specify a heap size up to 2 GB.

Step 4 If this file is locked, you see an error such as the following:

Step 5 Click **Unlock** and save the file.

If you do not see the **Unlock** dialog box, exit the editor, right-click the **Cisco ASDM-IDM** icon, choose **Copy Cisco ASDM-IDM**, and paste it to a location where you have write permissions, such as the Desktop. Then change the heap size from this copy.

ASA and ASDM Compatibility

For information about ASA/ASDM software and hardware requirements and compatibility, including module compatibility, see Cisco Secure Firewall ASA Compatibility.

VPN Compatibility

For VPN compatibility, see Supported VPN Platforms, Cisco ASA 5500 Series.

New Features

This section lists new features for each release.

Note New, changed, and deprecated syslog messages are listed in the syslog message guide.

New Features in ASA 9.23(1)/ASDM 7.23(1)

Released: March 5, 2025

Feature	Description
Platform Features	
Secure Firewall 1230/1240/1250	The Secure Firewall 1230/1240/1250 is a 1RU rackmountable firewall.
Increased connection limits for the Secure Firewall 4200	Connection limits have been increased: • 4225: 80M → **90M** • 4245: 80M → **180M**

Feature	Description
Firewall Features	
Support for the RADIUS Message-Authenticator attribute.	The Message-Authenticator attribute is used to protect against Blast-RADIUS attacks. If you have upgraded your RADIUS server so it supports the message authenticator, you can enable this option to help protect against these attacks. When enabled, all requests and responses must have the message authenticator, or authentication will fail. We added the **Require message authenticator from RADIUS Server** option to the Add/Edit RADIUS Server dialog box.
New Umbrella API.	You can now configure Umbrella using the Umbrella Open API, which uses an API key with a Secret key. We updated the following screen: **Configuration** > **Firewall** > **Objects** > **Umbrella**.
Flow offload is enabled by default for the Secure Firewall 3100/4200	Flow offload is now enabled by default. Added/modified screens: **Configuration** > **Firewall** > **Advanced** > **Offload Engine**
High Availability and Scalability Features	
Multiple context support for all Secure Firewall 1200 models	We added support for multiple context mode for the Secure Firewall 1210/1220: • Secure Firewall 1210CE—5 contexts. • Secure Firewall 1210CP—5 contexts. • Secure Firewall 1220CX—10 contexts. Switchports are not supported in multiple context mode, and you must convert all interfaces to router interfaces before you can convert to multiple context mode. The Secure Firewall 1230/1240/1250 also supports multiple context mode in its initial release: • Secure Firewall 1230—25 contexts. • Secure Firewall 1240—25 contexts. • Secure Firewall 1250—25 contexts.
Cluster redirect: flow offload support for the Secure Firewall 4200 asymmetric cluster traffic	For asymmetric flows, cluster redirect lets the forwarding node offload flows to hardware. This feature is enabled by default. When traffic for an existing flow is sent to a different node, then that traffic is redirected to the owner node over the cluster control link. Because asymmetric flows can create a lot of traffic on the cluster control link, letting the forwarder offload these flows can improve performance. Added/modified screens: **Configuration** > **Firewall** > **Advanced** > **Offload Engine** > **Cluster Redirect Offload**

Feature	Description
Improved role-switch time during failover	When a failover occurs, the new active device generates multicast packets for each MAC address entry and sends them to all bridge group interfaces, prompting the upstream switches to update their routing tables. This task of generating and sending multicast packets to the bridge interfaces now runs asynchronously in the data plane, allowing critical failover tasks in the control plane to proceed without delays. This enhancement improves role-switch time during a failover and reduces downtime.
MTU ping test on cluster node join	When a node joins the cluster, it checks MTU compatibility by sending a ping to the control node with a packet size matching the cluster control link MTU. If the ping fails, a notification is generated so you can fix the MTU mismatch on connecting switches and try again.
Interface Features	
Secure Firewall 1210CP IEEE 802.3bt support (PoE++ and Hi-PoE)	See the following improvements related to support for IEEE 802.3bt: • PoE++ and Hi-PoE—Up to 90W per port. • Single- and dual-signature powered devices (PDs). • Power budgeting is done on a first-come, first-served basis. • Power budget fields were added to **show power inline**. New/Modified screens: • **Configuration** > **Device Setup** > **Interface Settings** > **Interfaces** > **Edit** > **Power Over Ethernet** • **Monitoring** > **Interfaces** > **Power Over Ethernet**
License Features	
Flexible Permanent License Reservation for ASA Virtual	For an ASA Virtual, you can configure any model-specific license for permanent license reservation irrespective of the RAM and vCPUs. You can switch between the permanent license reservation licenses irrespective of the memory allocated to the ASA Virtual. You can also change the memory and vCPUs assigned to the ASA Virtual without changing the model license. If you downgrade the ASA Virtual to versions earlier than 9.23.1, the license status becomes Unregistered. We recommend that you do not downgrade an ASA Virtual with flexible permanent license reservation.
Administrative, Monitoring, and Troubleshooting Features	
Automated Certificate Management Environment (ACME) protocol for TLS device certificates.	You can configure Automated Certificate Management Environment (ACME) protocol to ASA trustpoint to manage the TLS device certificates. ACME enables simplified certificate management through auto renewal, domain validation, and easy enrolling and revoking of certificates. You can choose to use the Let's Encrypt CA server or use any other ACME server for the authentication. ACME uses http01 method for authentication. New or modified screens: **Add Identity Certificate > Add a new Identity Certificate > Advanced > Request from a CA**

Feature	Description
VPN Features	
Distributed site-to-site VPN with clustering on the Secure Firewall 4200	An ASA cluster on the Secure Firewall 4200 supports site-to-site VPN in distributed mode. Distributed mode provides the ability to have many site-to-site IPsec IKEv2 VPN connections distributed across members of an ASA cluster, not just on the control node (as in centralized mode). This significantly scales VPN support beyond centralized VPN capabilities and provides high availability. New or modified screens: **Monitoring > ASA Cluster > ASA Cluster > VPN Cluster Summary** **Monitoring > VPN > VPN Statistics > Sessions** **Configuration > Device Management > High Availablility and Scalability > ASA Cluster** **Wizards > Site-to-Site** **Monitoring > VPN > VPN Statistics > Sessions** **Monitoring > ASA Cluster > ASA Cluster > VPN Cluster Summary** **Monitoring > ASA Cluster > ASA Cluster > System Resource Graphs > CPU/Memory** **Monitoring > Logging > Real-Time Log Viewer**
IPsec flow offload for traffic on the cluster control link on the Secure Firewall 4200 in distributed site-to-site VPN mode	For asymmetric flows in distributed site-to-site VPN mode, IPsec flow offload now lets the flow owner decrypt IPsec traffic in hardware that was forwarded over the cluster control link. This feature is not configurable and is always available when you enable IPsec flow offload. Added/modified screens: **Configuration** > **Firewall** > **Advanced** > **IPsec Offload**

Upgrade the Software

This section provides the upgrade path information and a link to complete your upgrade.

Upgrade Link

To complete your upgrade, see the ASA upgrade guide.

Upgrade Path: ASA Appliances

What Version Should I Upgrade To?

On the Cisco Support & Download site, the suggested release is marked with a gold star. For example:

Figure 4: Suggested Release

View Your Current Version

To view your current version and model, use one of the following methods:

- ASDM: Choose **Home** > **Device Dashboard** > **Device Information**.
- CLI: Use the **show version** command.

Upgrade Guidelines

Be sure to check the upgrade guidelines for each release between your starting version and your ending version. You may need to change your configuration before upgrading in some cases, or else you could experience an outage.

For guidance on security issues on the ASA, and which releases contain fixes for each issue, see the ASA Security Advisories.

Upgrade Paths

This table provides upgrade paths for ASA.

Note ASA 9.20 was the final version for the Firepower 2100.

ASA 9.18 was the final version for the Firepower 4110, 4120, 4140, 4150, and Security Modules SM-24, SM-36, and SM-44 for the Firepower 9300.

ASA 9.16 was the final version for the ASA 5506-X, 5508-X, and 5516-X.

ASA 9.14 was the final version for the ASA 5525-X, 5545-X, and 5555-X.

ASA 9.12 was the final version for the ASA 5512-X, 5515-X, 5585-X, and ASASM.

ASA 9.2 was the final version for the ASA 5505.

ASA 9.1 was the final version for the ASA 5510, 5520, 5540, 5550, and 5580.

Table 2: Upgrade Path

Current Version	Interim Upgrade Version	Target Version
9.20	—	Any of the following: → 9.22
9.19	—	Any of the following: → 9.22 → 9.20
9.18	—	Any of the following: → 9.22 → 9.20 → 9.19

Current Version	Interim Upgrade Version	Target Version
9.17	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18
9.16	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17
9.15	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16
9.14	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16

Current Version	Interim Upgrade Version	Target Version
9.13	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16
9.12	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16
9.10	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12
9.9	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12

Current Version	Interim Upgrade Version	Target Version
9.8	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12
9.7	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12
9.6	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12

Current Version	Interim Upgrade Version	Target Version
9.5	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12
9.4	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12
9.3	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12

Current Version	Interim Upgrade Version	Target Version
9.2	—	Any of the following: → 9.22 → 9.20 → 9.19 → 9.18 → 9.17 → 9.16 → 9.12
9.1(2), 9.1(3), 9.1(4), 9.1(5), 9.1(6), or 9.1(7.4)	—	Any of the following: → 9.12
9.0(2), 9.0(3), or 9.0(4)	—	Any of the following: → 9.12

Upgrade Path: ASA Logical Devices for the Firepower 4100/9300

- FXOS: From FXOS 2.2.2 and later, you can upgrade directly to any higher version. (FXOS 2.0.1–2.2.1 can upgrade as far as 2.8.1. For versions earlier than 2.0.1, you need to upgrade to each intermediate version.) Note that you cannot upgrade FXOS to a version that does not support your current logical device version. You will need to upgrade in steps: upgrade FXOS to the highest version that supports your current logical device; then upgrade your logical device to the highest version supported with that FXOS version. For example, if you want to upgrade from FXOS 2.2/ASA 9.8 to FXOS 2.13/ASA 9.19, you would have to perform the following upgrades:

  1. FXOS 2.2 → FXOS 2.11 (the highest version that supports 9.8)
  2. ASA 9.8 → ASA 9.17 (the highest version supported by 2.11)
  3. FXOS 2.11 → FXOS 2.13
  4. ASA 9.17 → ASA 9.19

- Firewall Threat Defense: Interim upgrades may be required for Firewall Threat Defense, in addition to the FXOS requirements above. For the exact upgrade path, refer to the Firewall Management Center upgrade guide for your version.
- ASA: ASA lets you upgrade directly from your current version to any higher version, noting the FXOS requirements above.

Table 3: Firepower 4100/9300 Compatibility with ASA and Firewall Threat Defense

FXOS Version	Model	ASA Version	Firewall Threat Defense Version
2.16	Firepower 4112	**9.22** (recommended) 9.20 9.19 9.18 9.17	**7.6** (recommended) 7.4 7.3 7.2 7.1
	Firepower 4145 Firepower 4125 Firepower 4115	**9.22** (recommended) 9.20 9.19 9.18 9.17	**7.6** (recommended) 7.4 7.3 7.2 7.1
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
2.14(1)	Firepower 4112	**9.20** (recommended) 9.19 9.18 9.17 9.16 9.14	**7.4** (recommended) 7.3 7.2 7.1 7.0 6.6
	Firepower 4145 Firepower 4125 Firepower 4115	**9.20** (recommended) 9.19 9.18 9.17 9.16 9.14	**7.4** (recommended) 7.3 7.2 7.1 7.0 6.6
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		

FXOS Version	Model	ASA Version	Firewall Threat Defense Version
2.13	Firepower 4112	**9.19** (recommended) 9.18 9.17 9.16 9.14	**7.3** (recommended) 7.2 7.1 7.0 6.6
	Firepower 4145 Firepower 4125 Firepower 4115	**9.19** (recommended) 9.18 9.17 9.16 9.14	**7.3** (recommended) 7.2 7.1 7.0 6.6
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
2.12	Firepower 4112	**9.18** (recommended) 9.17 9.16 9.14	**7.2** (recommended) 7.1 7.0 6.6
	Firepower 4145 Firepower 4125 Firepower 4115	**9.18** (recommended) 9.17 9.16 9.14 9.12	**7.2** (recommended) 7.1 7.0 6.6 6.4
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	**9.18** (recommended) 9.17 9.16 9.14 9.12	**7.2** (recommended) 7.1 7.0 6.6 6.4
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		

FXOS Version	Model	ASA Version	Firewall Threat Defense Version
2.11	Firepower 4112	**9.17** (recommended) 9.16 9.14	**7.1** (recommended) 7.0 6.6
	Firepower 4145 Firepower 4125 Firepower 4115	**9.17** (recommended) 9.16 9.14 9.12	**7.1** (recommended) 7.0 6.6 6.4
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	**9.17** (recommended) 9.16 9.14 9.12 9.8	**7.1** (recommended) 7.0 6.6 6.4
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		
2.10 **Note** For compatibility with 7.0.2+ and 9.16(3.11)+, you need FXOS 2.10(1.179)+.	Firepower 4112	**9.16** (recommended) 9.14	**7.0** (recommended) 6.6
	Firepower 4145 Firepower 4125 Firepower 4115	**9.16** (recommended) 9.14 9.12	**7.0** (recommended) 6.6 6.4
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	**9.16** (recommended) 9.14 9.12 9.8	**7.0** (recommended) 6.6 6.4
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		

FXOS Version	Model	ASA Version	Firewall Threat Defense Version
2.9	Firepower 4112	9.14	6.6
	Firepower 4145 Firepower 4125 Firepower 4115	9.14 9.12	6.6 6.4
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	9.14 9.12 9.8	6.6 6.4
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		
2.8	Firepower 4112	**9.14**	**6.6** **Note** 6.6.1+ requires FXOS 2.8(1.125)+.
	Firepower 4145 Firepower 4125 Firepower 4115	**9.14** (recommended) 9.12 **Note** Firepower 9300 SM-56 requires ASA 9.12(2)+	**6.6** (recommended) **Note** 6.6.1+ requires FXOS 2.8(1.125)+. 6.4
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	**9.14** (recommended) 9.12 9.8	**6.6** (recommended) **Note** 6.6.1+ requires FXOS 2.8(1.125)+. 6.4 6.2.3
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		

FXOS Version	Model	ASA Version	Firewall Threat Defense Version
2.6(1.157) **Note** You can now run ASA 9.12+ and FTD 6.4+ on separate modules in the same Firepower 9300 chassis	Firepower 4145 Firepower 4125 Firepower 4115	**9.12** **Note** Firepower 9300 SM-56 requires ASA 9.12.2+	**6.4**
	Firepower 9300 SM-56 Firepower 9300 SM-48 Firepower 9300 SM-40		
	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	**9.12** (recommended) 9.8	**6.4** (recommended) 6.2.3
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		
2.6(1.131)	Firepower 9300 SM-48 Firepower 9300 SM-40	**9.12**	Not supported
	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	**9.12** (recommended) 9.8	
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		
2.3(1.73)	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	9.8 **Note** 9.8(2.12)+ is required for flow offload when running FXOS 2.3(1.130)+.	**6.2.3** (recommended) **Note** 6.2.3.16+ requires FXOS 2.3.1.157+
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		

FXOS Version	Model	ASA Version	Firewall Threat Defense Version
2.3(1.66) 2.3(1.58)	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	9.8 **Note** 9.8(2.12)+ is required for flow offload when running FXOS 2.3(1.130)+.	
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		
2.2	Firepower 4150 Firepower 4140 Firepower 4120 Firepower 4110	**9.8**	Firewall Threat Defense versions are EoL
	Firepower 9300 SM-44 Firepower 9300 SM-36 Firepower 9300 SM-24		

Note on Downgrades

Downgrade of FXOS images is not officially supported. The only Cisco-supported method of downgrading an image version of FXOS is to perform a complete re-image of the device.

Open and Resolved Bugs

The open and resolved bugs for this release are accessible through the Cisco Bug Search Tool. This web-based tool provides you with access to the Cisco bug tracking system, which maintains information about bugs and vulnerabilities in this product and other Cisco hardware and software products.

Note You must have a Cisco.com account to log in and access the Cisco Bug Search Tool. If you do not have one, you can register for an account. If you do not have a Cisco support contract, you can only look up bugs by ID; you cannot run searches.

For more information about the Cisco Bug Search Tool, see the Bug Search Tool Help & FAQ.

Open Bugs in Version 7.23(1)

There are no open bugs in this release.

Resolved Bugs in Version 7.23(1)

The following table lists select resolved bugs at the time of this Release Note publication.

Identifier	Headline
CSCwm94971	Secure Client Connection Profile Address Pool not Shown
CSCwn25430	Secure Client External Browser package Image shown 2 same packages

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Related Documentation

For additional information on the ASA, see Navigating the Cisco Secure Firewall ASA Series Documentation.