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Introduction

This document describes how to upgrade a software image on the Cisco ASA 5500 Series Adaptive Security Appliances using the Cisco Adaptive Security Device Manager (ASDM).

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on these software and hardware versions:

- Cisco ASA 5500 and ASA5500-X 9.1(2) and later
- Cisco ASDM 7.1 and later

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Related Products

This configuration can also be used with Cisco ASA 5500-X Series Security Appliance Software Version 9.x.

Conventions

Refer to the Cisco Software License Agreement for ASA Software images and ASDM Software Images using ASDM Software Release Download (registered customers only)

[Download Software](#)

Note: You need to have valid Cisco user credentials in order to download this software from Cisco.com.

Compatibility between ASA and ASDM

Refer the below link which is updated with the compatibility and cisco recommended ASDM release for each version of ASA.

[ASA and ASDM Compatibility](#)

ASA Upgrade Path

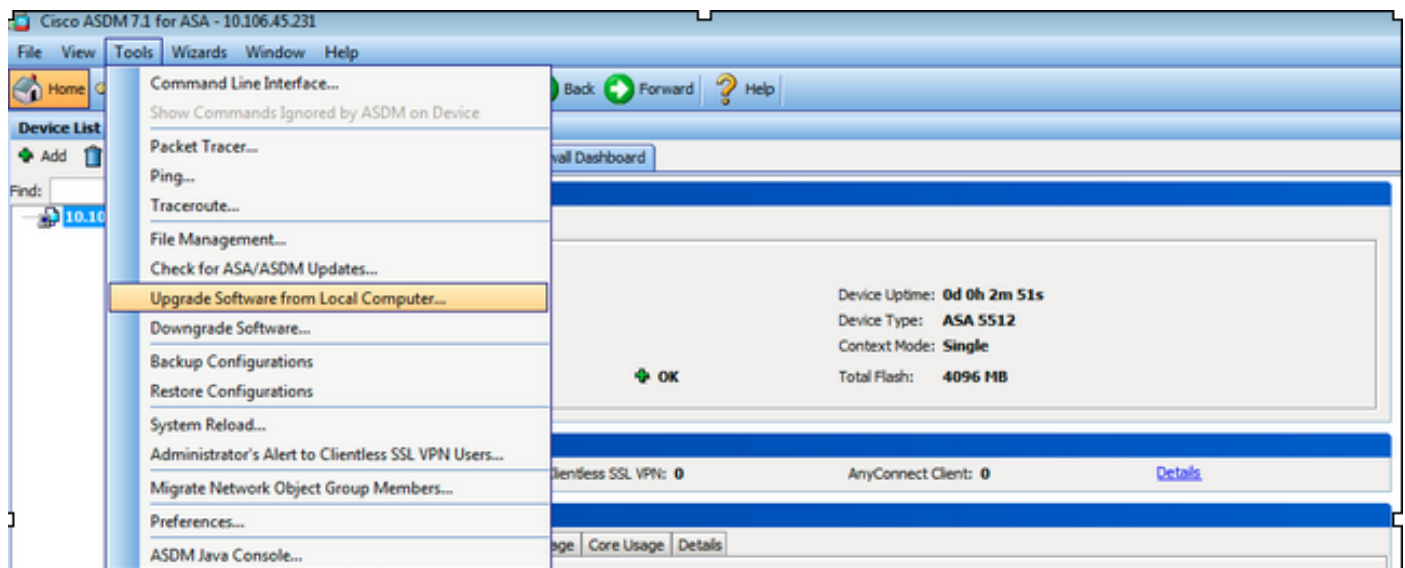
Refer the below link which provides the upgrade path for ASA. Some versions require an interim upgrade before you can upgrade to the latest version.

[ASA Upgrade Path](#)

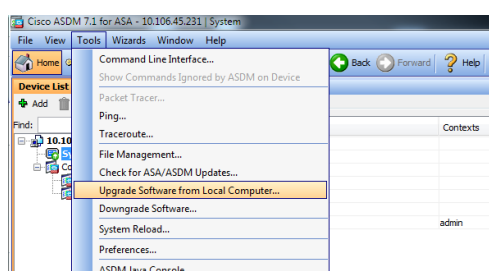
Upgrade a ASA Software Image using ASDM 7.x

Complete these steps to upgrade a software image on the ASA 5500 using ASDM.

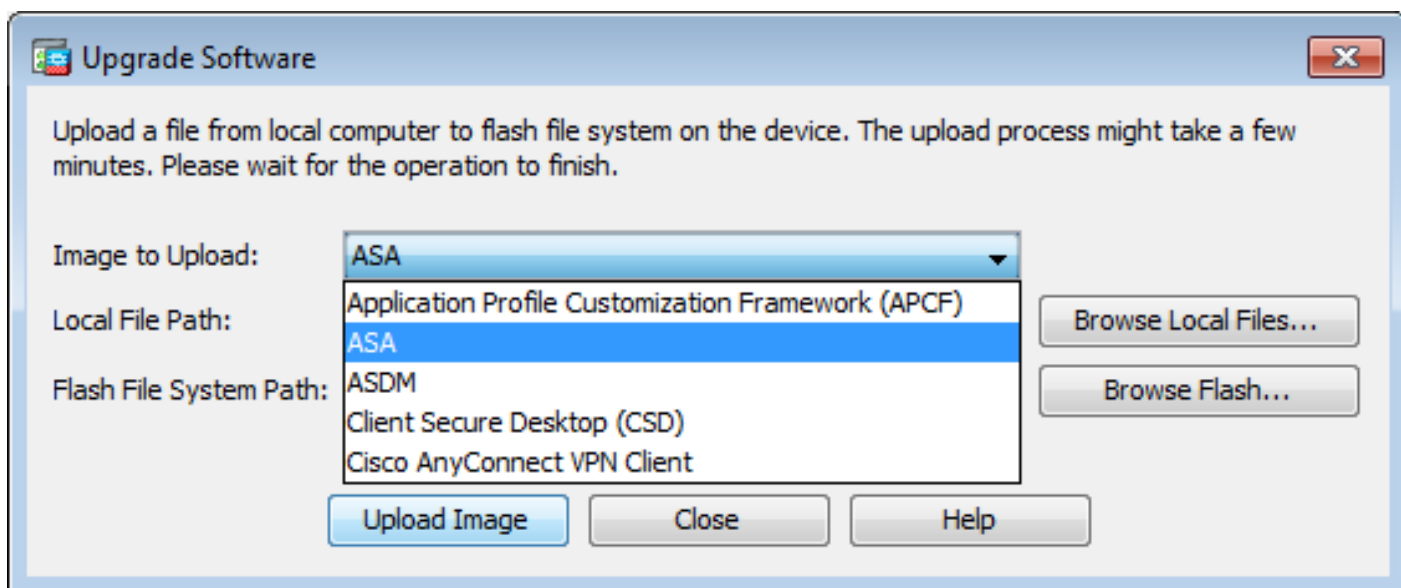
1. If ASA is in Single context mode. Select **Tools > Upgrade Software from Local Computer...** from the Home window of the ASDM.



If ASA is running Multiple context mode, the **Upgrade Software from Local Computer** option under Tools is available only from System context.



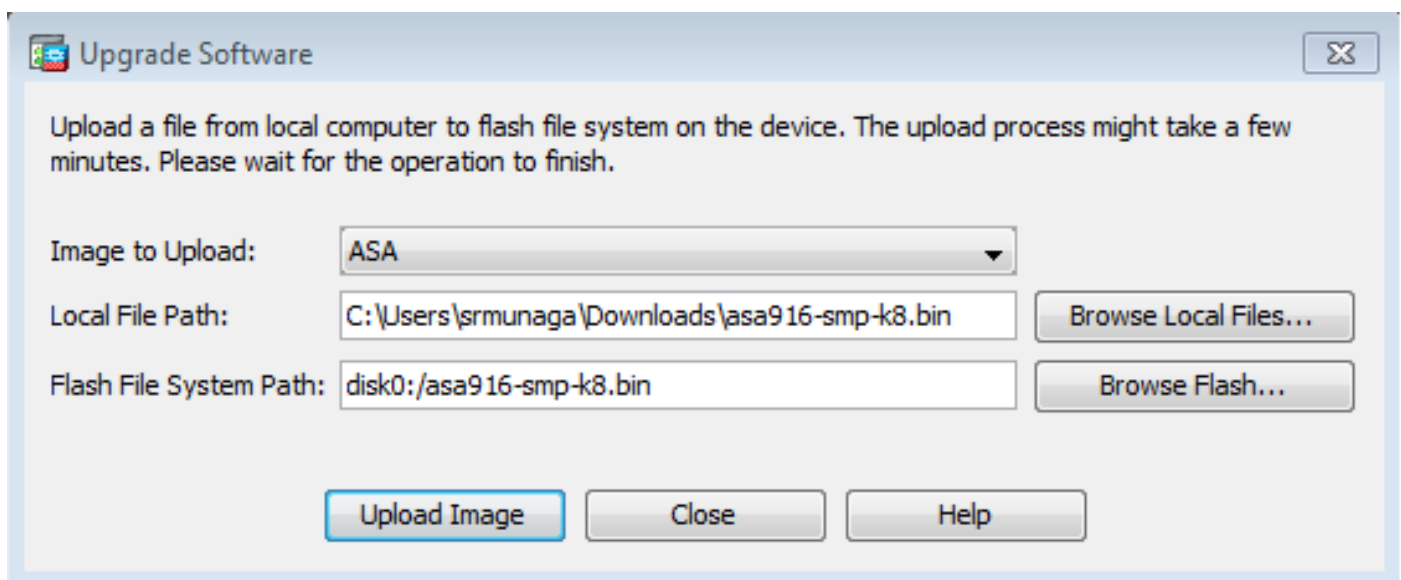
2. Select ASA as the image type to upload from the drop-down menu.



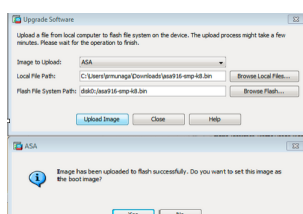
3. Click **Browse Local Files...** or type the path in the Local File Path field to specify the location of the software image on your PC.

4. Click **Browse Flash....**

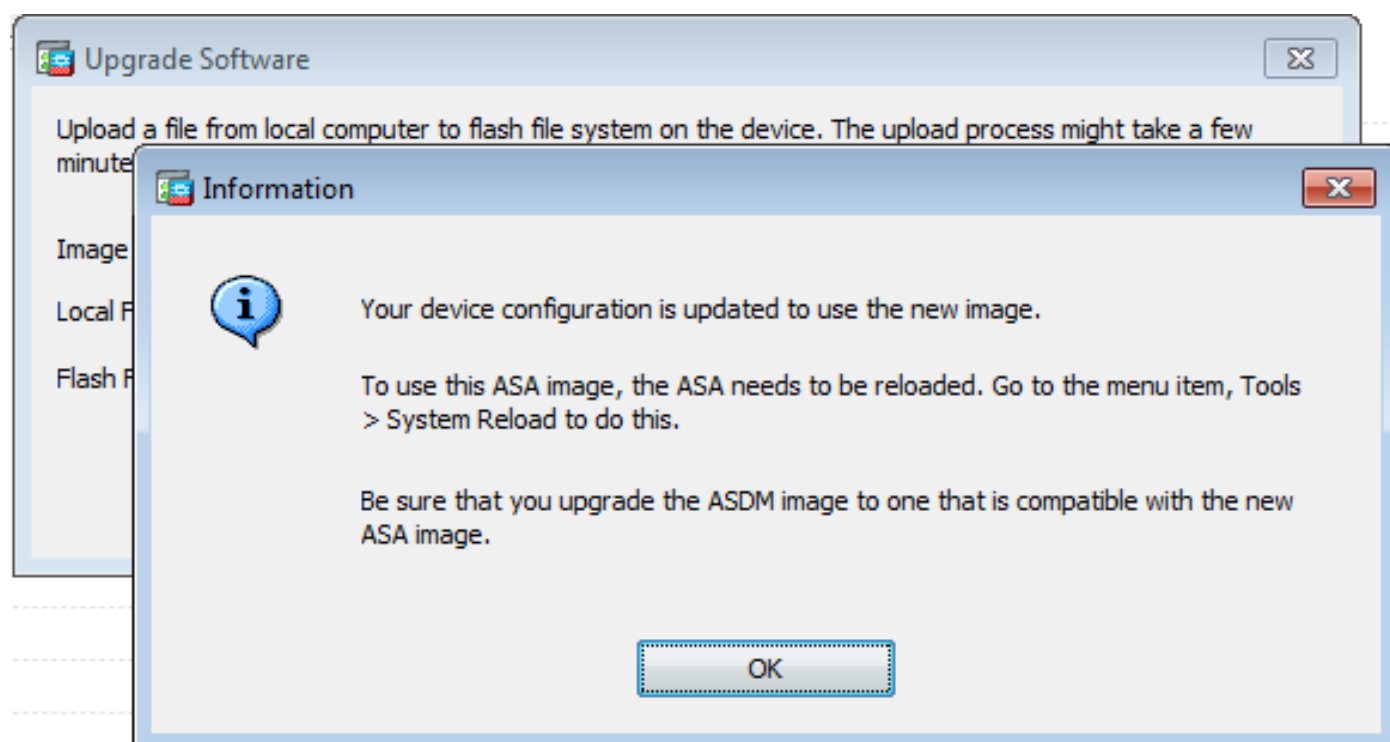
5. A Browse Flash Dialog window appears with the file name entered automatically. If the file name does not appear, enter it manually in the File Name field. Click **OK** when you are done.



6. Once both the local and remote file names are specified, click **Upload Image**.

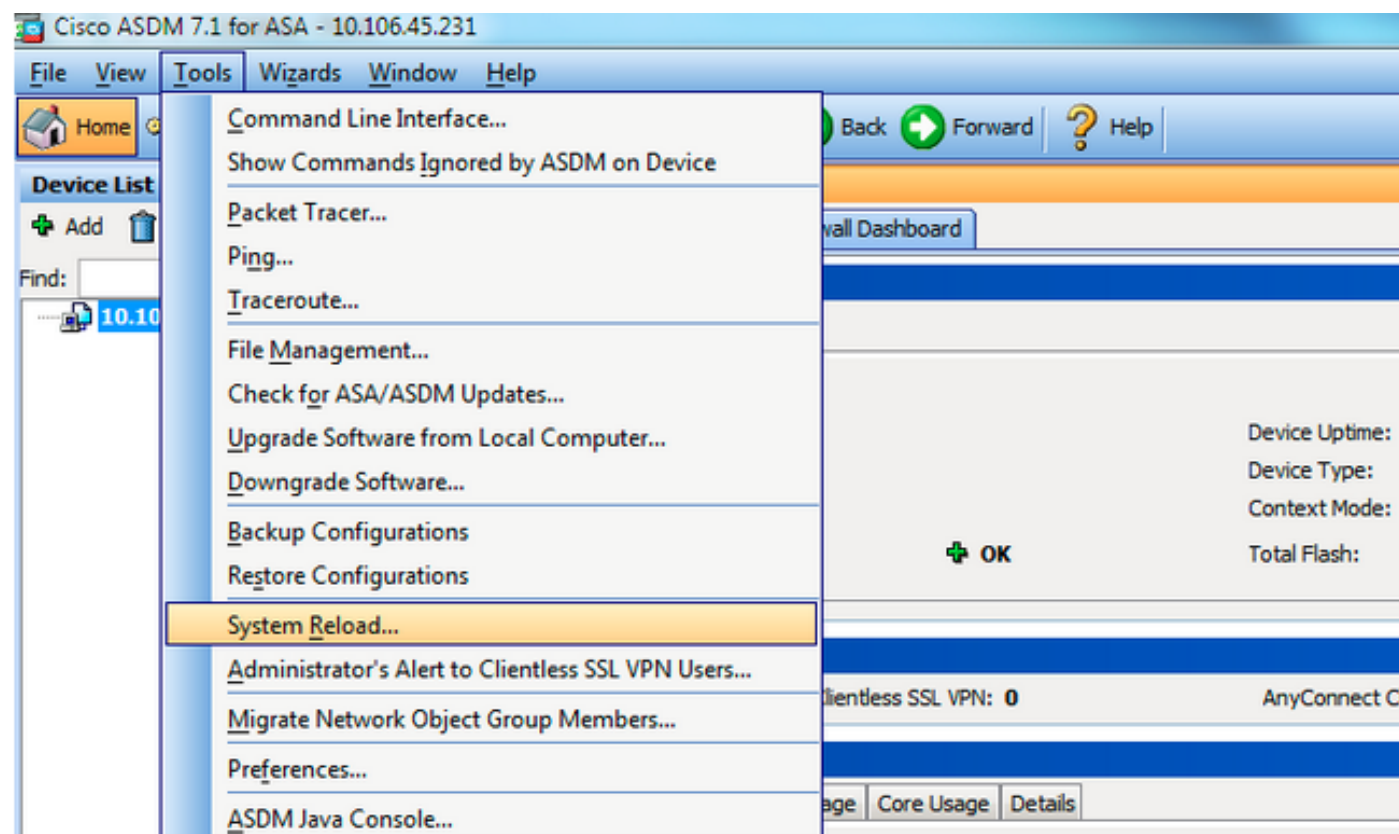


7. A Status window appears while ASDM writes the image to Flash. Once completed, an Information window appears that indicates a successful upload and if the image should be set as boot image. Select **Yes**



Click OK in the Information window and then Close in the Upload Image from Local PC window.

8. Choose **Tools > System Reload** from the Home window to reload the device.



A new window appears that asks you to verify the details of the reload. Select **Save the running configuration at the time of reload** and then choose a time to reload.

- **Now**—Reboot the device immediately.
- **Delay By**—Specify in how many minutes or hours from now to reload the device.
- **Schedule at**—Specify a time and date to reload the device.

You can also specify whether or not the device should force a reload immediately if a scheduled reload fails. Check **On Reload failure, force an immediate reload after** and then specify a maximum hold time. This is the amount of time that the security appliance waits to notify other subsystems before a shutdown or reboot. After this time elapses, a quick (forced) shutdown/reboot occurs. Click **Schedule Reload**.

System Reload

Schedule a system reload or cancel a pending one.

Reload Scheduling

Configuration State:

☒ Save the running configuration at time of reload

☐ Reload without saving the running configuration

Reload Start Time:

☒ Now

☐ Delay by: hh : mm or mmm

☐ Schedule at: hh : mm

Reload Message:

☐ On reload failure, force an immediate reload after: hh : mm or mmm

Schedule Reload

Reload Status

No reload is scheduled.

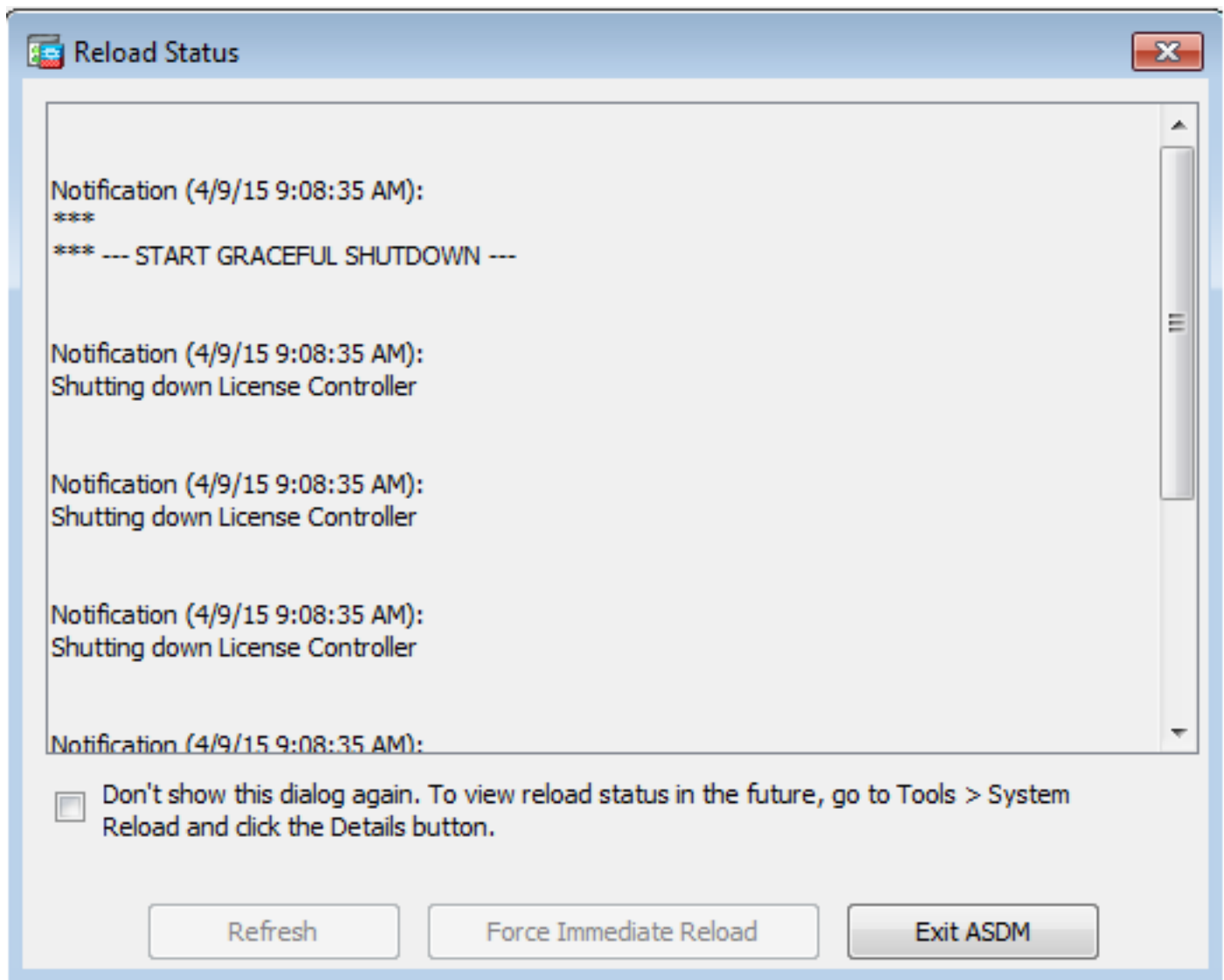
Cancel Reload Refresh Details...

Last Updated: 4/9/15 2:32:06 PM

Close Help

Once the reload is in progress, a Reload Status window appears that indicates that a reload is being performed. An option to exit ASDM is also provided.

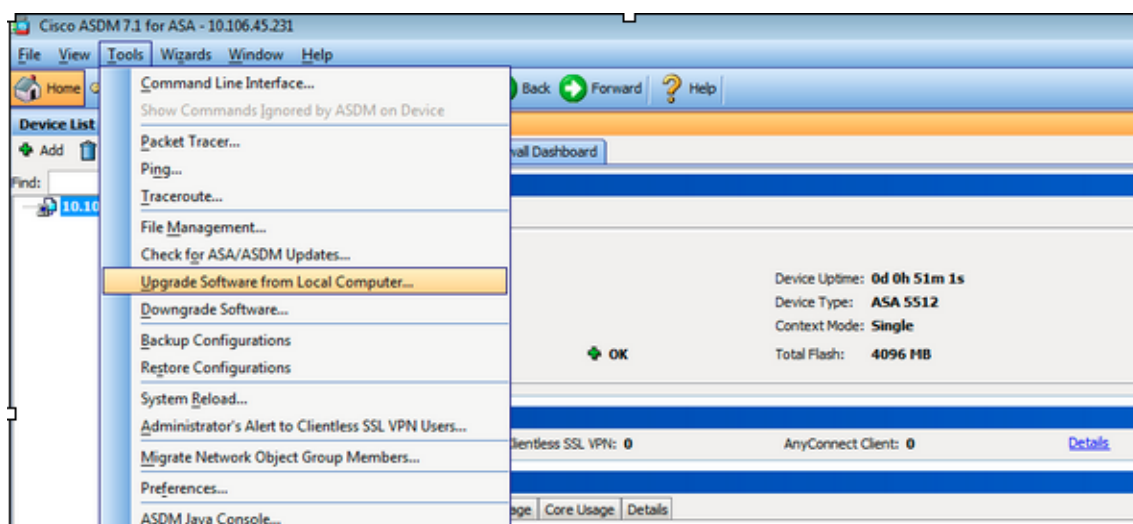
Note: Start ASDM again after the ASA reloads.



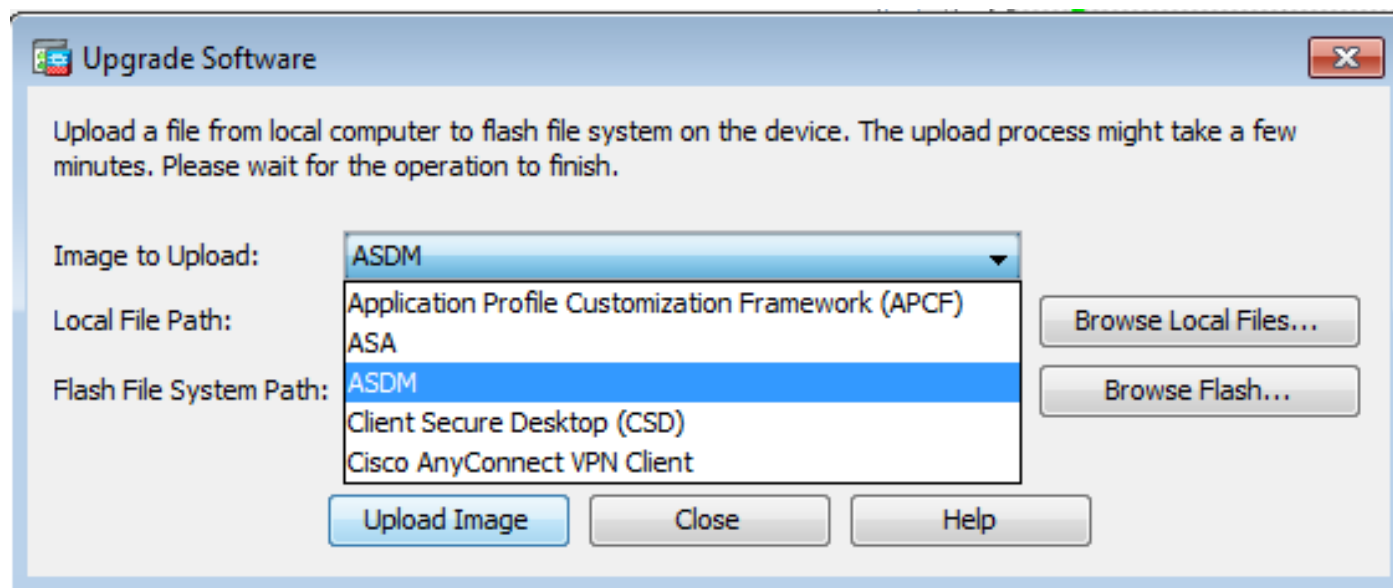
Upgrade ASDM Image using ASDM 7.x.

Complete these steps to upgrade a software image on the ASA 5500 using ASDM.

1. Select **Tools > Upgrade Software from Local Computer...** from the Home window of the ASDM.



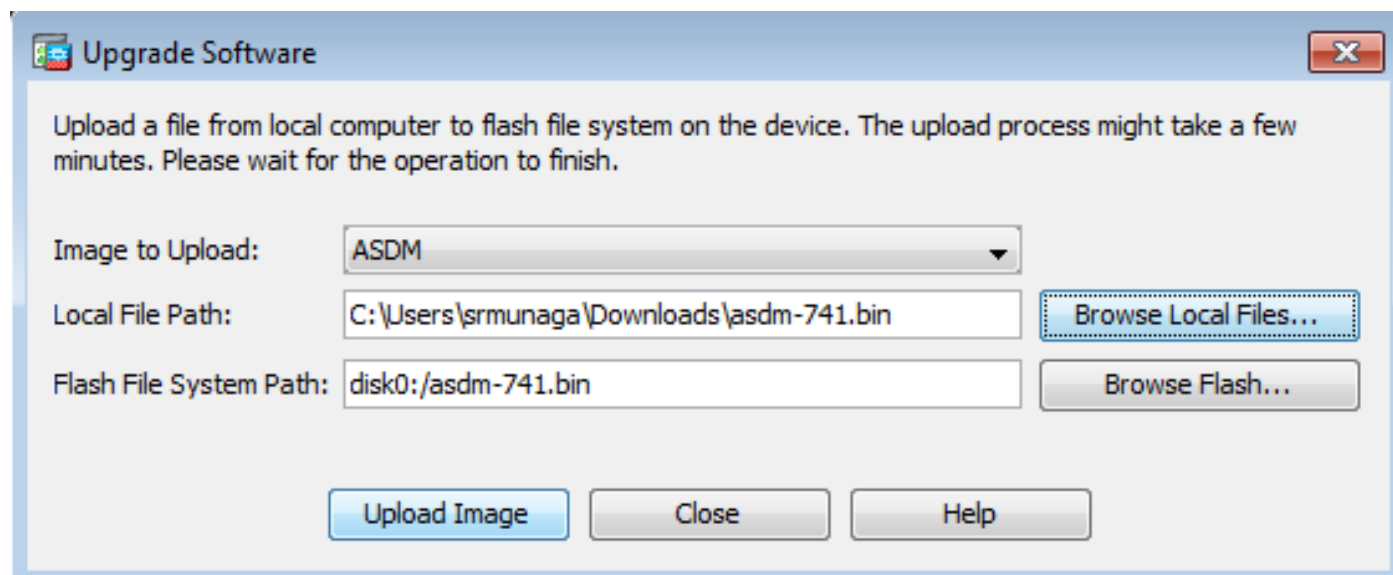
2. Select ASDM as the image type to upload from the drop-down menu.



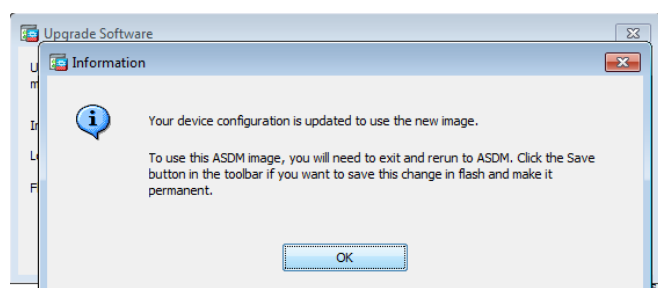
3. Click **Browse Local Files...** or type the path in the Local File Path field to specify the location of the software image on your PC.

Click **Browse Flash....**

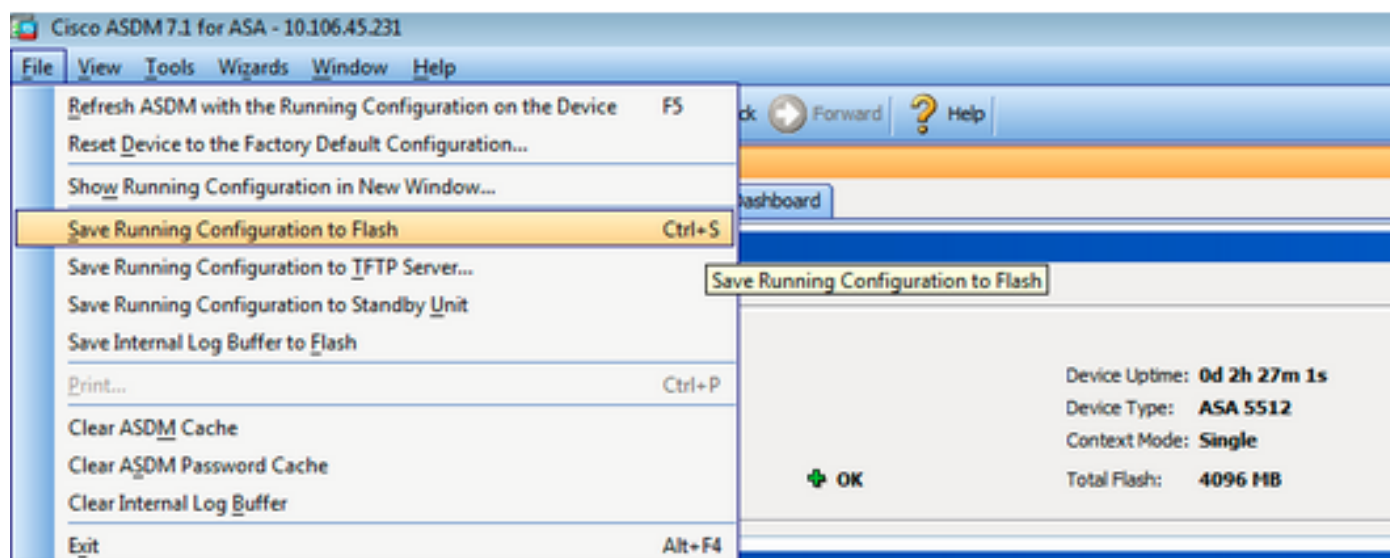
A Browse Flash Dialog window appears with the file name entered automatically. If the file name does not appear, enter it manually in the File Name field. Click **OK** when you are done.



4. Click OK once the image is updated with the new image.



5. Select **File > Save Running Configuration to Flash** from the Home window of the ASDM.

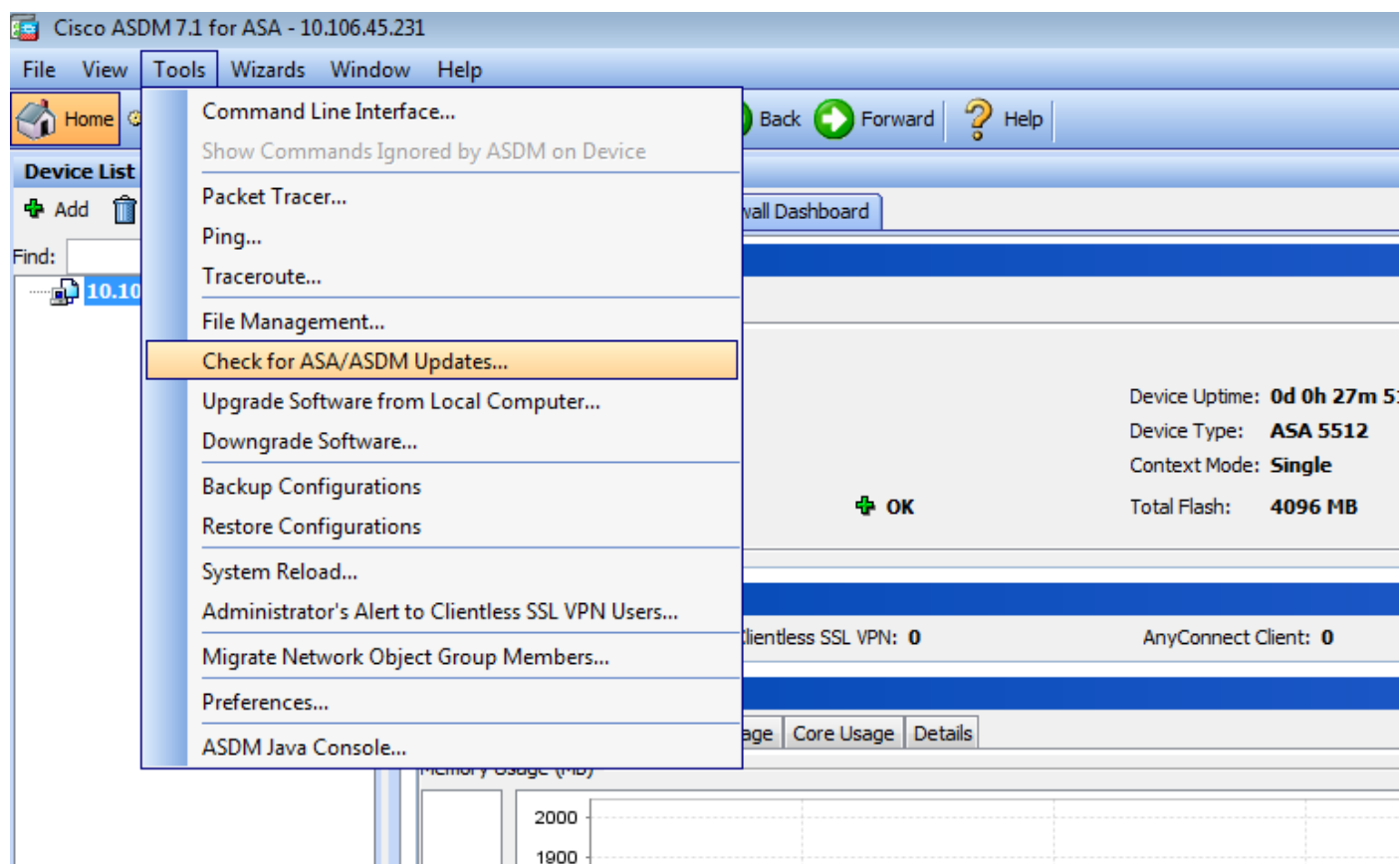


Exit the ASDM and login back again to manage the ASA with the upgraded ASDM image.

Upgrading the ASA and ASDM by downloading image directly from CCO

Complete these steps to upgrade a ASA and ASDM image directly from CCO.

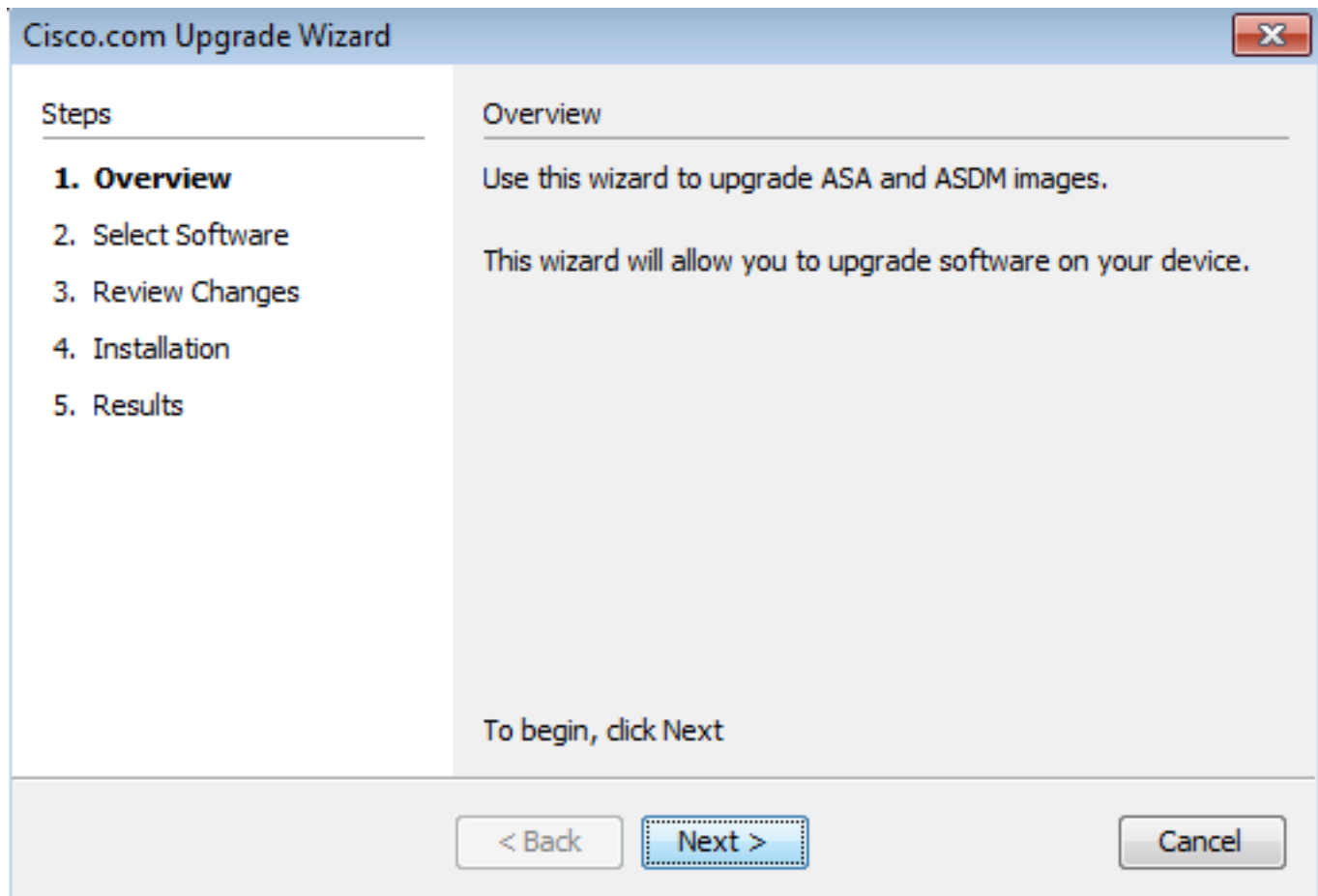
1. Select **Tools > Check for ASA/ASDM Updates...** from the Home window of the ASDM.



2. When the username and password prompt appears, provide the Cisco.com credentials and click **Login**.

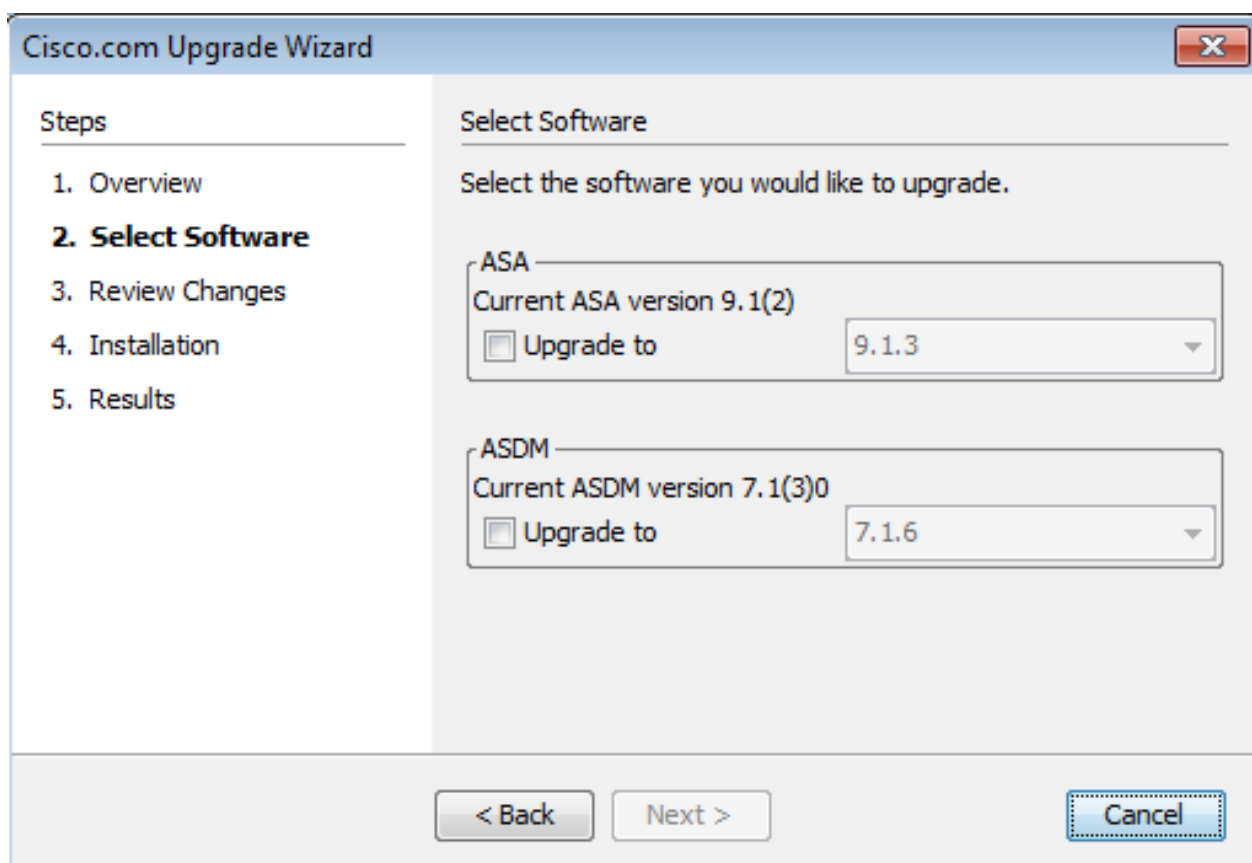


3. The Cisco.com Upgrade Wizard appears. In the Overview section, click Next.



The screenshot shows the 'Cisco.com Upgrade Wizard' window. On the left, a 'Steps' sidebar lists five steps: 1. Overview (highlighted), 2. Select Software, 3. Review Changes, 4. Installation, and 5. Results. The main area is titled 'Overview' and contains the text: 'Use this wizard to upgrade ASA and ASDM images.' and 'This wizard will allow you to upgrade software on your device.' At the bottom of the main area, it says 'To begin, click Next'. At the bottom of the window, there are three buttons: '< Back' (disabled), 'Next >' (active/highlighted), and 'Cancel' (disabled).

4. In the Select Software section, check the software which needs to be upgraded. If both ASA and ASDM needs to be upgraded, check both options.



The screenshot shows the 'Cisco.com Upgrade Wizard' window at the 'Select Software' step. The 'Steps' sidebar on the left now highlights '2. Select Software'. The main area is titled 'Select Software' and contains the instruction: 'Select the software you would like to upgrade.' There are two sections for software selection. The first section is for 'ASA', showing 'Current ASA version 9.1(2)' and a checkbox labeled 'Upgrade to' followed by a dropdown menu showing '9.1.3'. The second section is for 'ASDM', showing 'Current ASDM version 7.1(3)0' and a checkbox labeled 'Upgrade to' followed by a dropdown menu showing '7.1.6'. At the bottom of the window, there are three buttons: '< Back' (disabled), 'Next >' (active/highlighted), and 'Cancel' (disabled).

5. In the ASA version dropdown, select the version to which the ASA upgrade has to be performed.

Cisco.com Upgrade Wizard

Steps

1. Overview
- 2. Select Software**
3. Review Changes
4. Installation
5. Results

Select Software

Select the software you would like to upgrade.

ASA
Current ASA version 9.1(2)
☒ Upgrade to 9.1.6

ASDM
Current ASDM version 7.1(3)0
☒ Upgrade to

Click "NEXT" to continue.

< Back Next > Cancel

6. In the ASDM version dropdown, select the version to which the ASDM upgrade has to be performed. Click Next once the appropriate versions are selected.

Cisco.com Upgrade Wizard

Steps

1. Overview
- 2. Select Software**
3. Review Changes
4. Installation
5. Results

Select Software

Select the software you would like to upgrade.

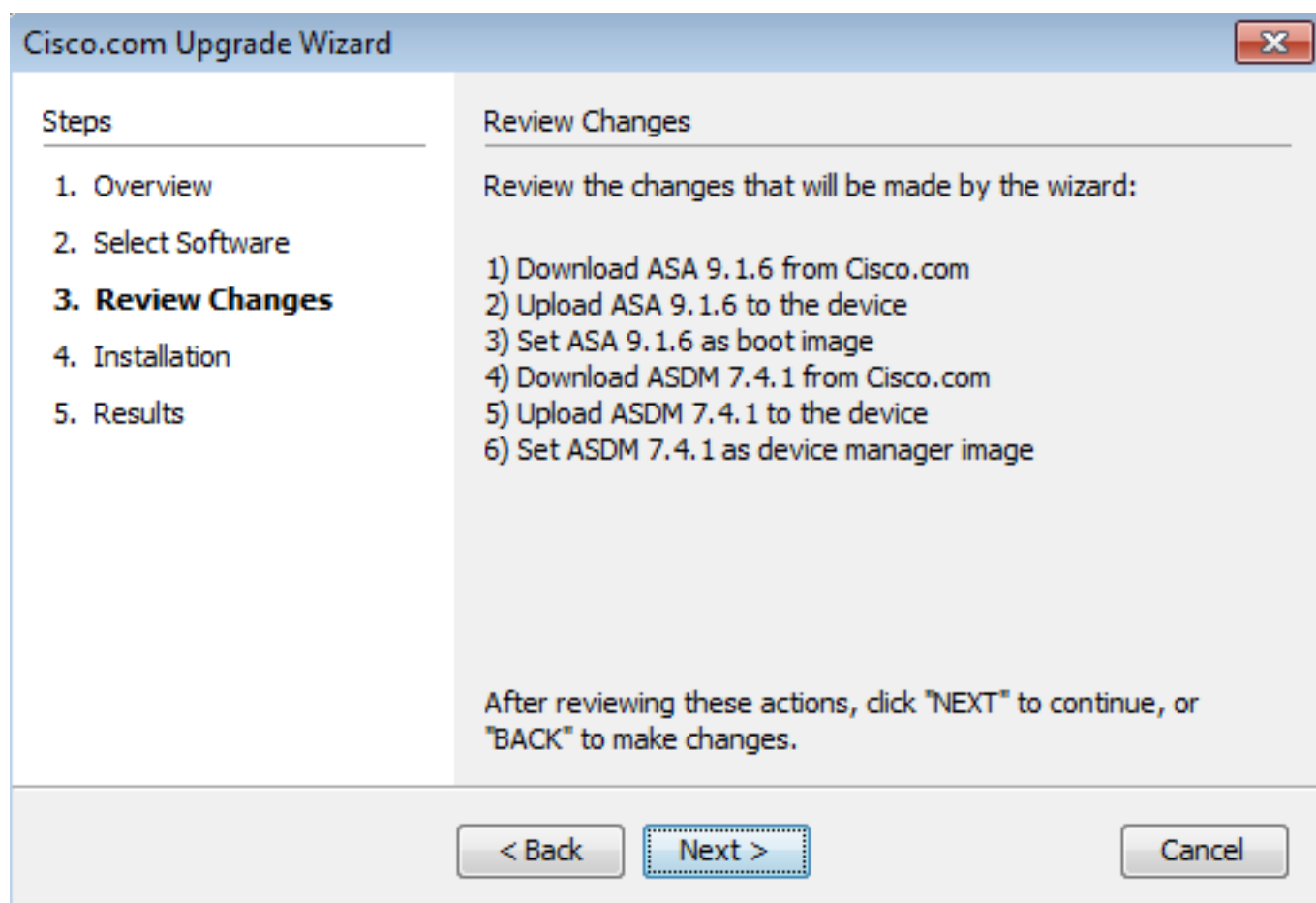
ASA
Current ASA version 9.1(2)
☒ Upgrade to 9.1.6

ASDM
Current ASDM version 7.1(3)0
☒ Upgrade to 7.4.1

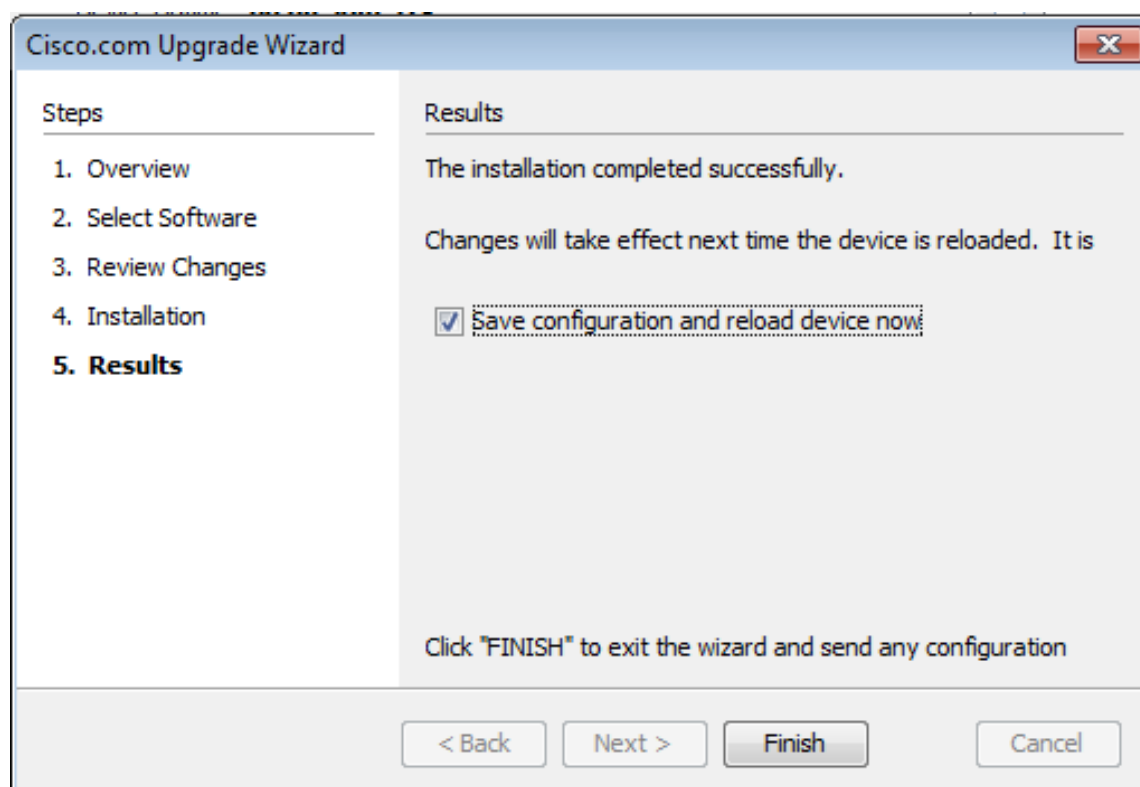
Click "NEXT" to continue.

< Back Next >

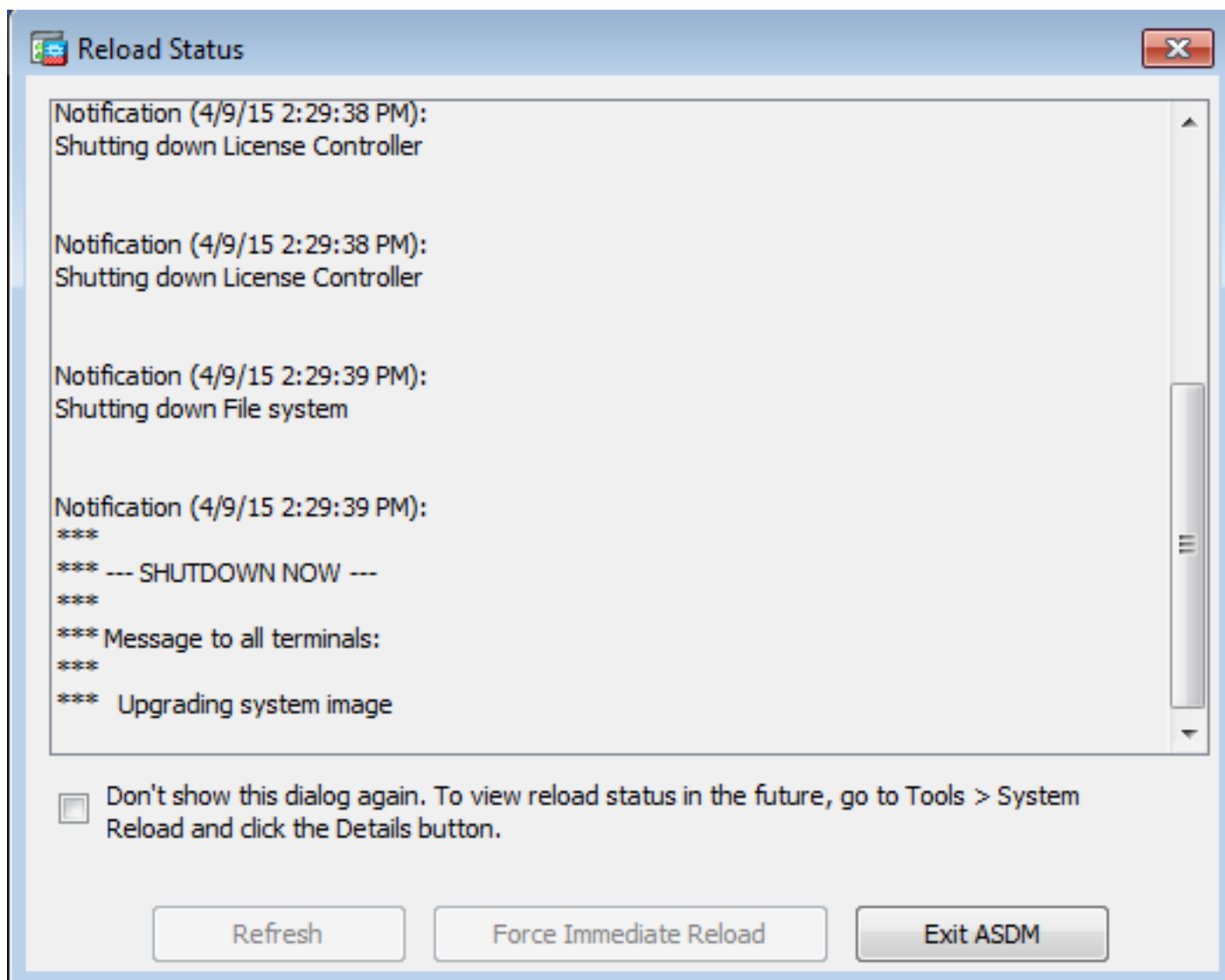
7. In the Review Changes section, Review the changes and **Click Next** .



8. The Installation of the images start and the overall progress can be seen as below. Once completed click Finish.
In the Results section, check the "**Save configuration and reload device now**" option. Click Finish.



9. The Reload status screen appears while the device reloads.



10. Click "Exit ASDM" and login back again once the device comes up after reload.

Upgrade a Software Image and ASDM Image using CLI

A TFTP server is required to upgrade or downgrade a software image as well as an ASDM image for a ASA. Refer to [TFTP Server Selection and Use](#) in order to learn more about TFTP server selection.

The **copy tftp flash** command enables you to download a software image into the Flash memory of the firewall via TFTP. You can use the **copy tftp flash** command with any security appliance model. The image you download can now be used upon the next reboot , by changing the boot system variable to point to this image.

This is the output from the **copy tftp flash** command:

For multiple context mode, perform these steps in the system execution space.

Note: For ASA, keyword *disk0* replaces *flash* in the **copy** command.

If the command is used without the location or pathname optional parameters, then the location and filename are obtained from the user interactively via a series of questions similar to those presented by Cisco IOS® software. If you only enter a colon, parameters are taken from the **tftp-server** command settings. If other optional parameters are supplied, then these values are used in place of the corresponding **tftp-server** command setting. If any of the optional parameters, such as a colon and anything after it are supplied, the command runs without a prompt for user input.

The location is either an IP address or a name that resolves to an IP address via the security appliance naming resolution mechanism, which is currently static mappings via the **name** and **names** commands. The security appliance must know how to reach this location via its routing table information. This information is determined by the **IP address**, the **route**, or the **RIP** commands. This depends on your configuration.

The pathname can include any directory names besides the actual last component of the path to the file on the server. The pathname cannot contain spaces. If a directory name has spaces set to the directory in the TFTP server instead of in the **copy tftp flash** command, and if your TFTP server is configured to point to a directory on the system from which you download the image, you only need to use the IP address of the system and the image filename. The TFTP server receives the command and determines the actual file location from its root directory information. The server then downloads the TFTP image to the security appliance.

These commands are needed to upgrade the software image as well as the ASDM image and make it as a boot image at the next reload.

```
ASA#copy tftp [[flash:/disk0:][software image name/asdm image name]]
!--- Command to set an image as bootup or specify the !--- ASDM image file. ASA(config)#boot
system [flash:/disk0:][software image name]
!--- Save active configuration to the Flash. ASA#write memory
!--- Reboot the security appliance and load !--- with the new boot image as per the
configuration file. ASA#reload
```

Example:

```
ASA-5512# copy tftp: disk0:
```

```
Address or name of remote host []? 172.16.31.1
Source filename []? asa916-smp-k8.bin
Destination filename [asa916-smp-k8.bin]?
Accessing tftp://172.16.31.1/asa916-smp-k8.bin...!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Writing file disk0:/asa916-smp-k8.bin...
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
38043648 bytes copied in 32.290 secs (1188864 bytes/sec)
```

```
ASA-5512# sh disk0
```

```
--#-- --length-- ----date/time----- path 191 38191104 Nov 21 2014 21:07:48 asa912-
smp-k8.bin
192 17906032 Apr 08 2015 22:33:44 asdm-713.bin
193 26350916 Apr 09 2015 06:28:20 asdm-741.bin
194 38043648 May 10 2015 02:14:06 asa916-smp-k8.bin
```

```
4118732800 bytes total (3556712448 bytes free)
```

```
!--- Command to set "asa916-smp-k8.bin" as the boot image. ASA-5512(config)# boot system
disk0:/asa916-smp-k8.bin
```

```
!--- Command to set "asdm-741.bin" as the ASDM image. ASA-5512(config)# asdm image disk0:/asdm-
741.bin
```

```
ASA-5512# write memory
ASA-5512# reload
```

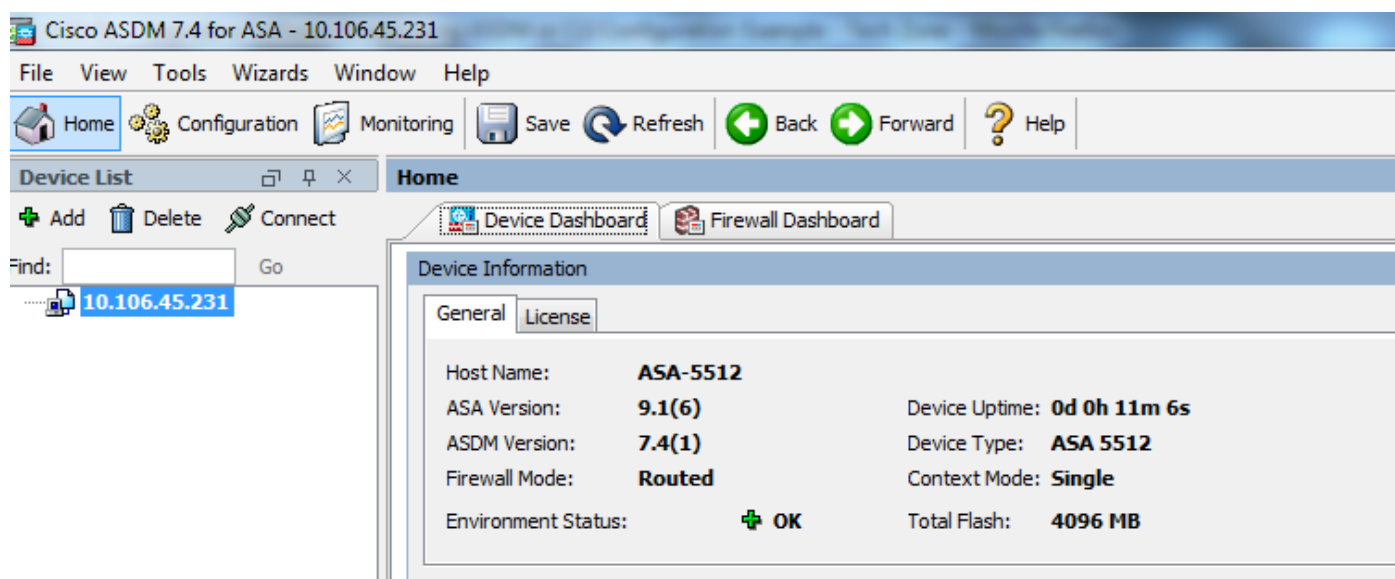
Note: When you try to upgrade the image on the ASA from an FTP server, you can use the **copy ftp flash** command. This command allows you to specify parameters, such as remote IP address and source file name. This procedure is similar to TFTP. However, one limitation with is that you can not modify the remote IP/source interface (like you can with TFTP). In TFTP mode, options specified with the **tftp-server** command can be pulled and executed. But with FTP, there is no such option. The source interface should always be the *outside* by default, which cannot be modified. That is, the FTP server should be reachable from the outside interface.

Verify

Use this section to confirm that your software upgrade was successful.

The [Cisco CLI Analyzer](#) (registered customers only) supports certain **show** commands. Use the Cisco CLI Analyzer in order to view an analysis of **show** command output.

After the ASA reloads and you have successfully logged into ASDM again, you can verify the version of the image that runs on the device. See the General tab on the Home window for this information.



These CLI commands are used in order to verify the upgrade:

1. **Show version**—This shows the current image with which the ASA is booted.
2. **Show bootvar**—This shows the priority of the image to be used after reload.
3. **Show asdm image**—This shows the current asdm image used by ASA.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.

Related Information

[ASA Connection Problems to the Cisco Adaptive Security Device Manager](#)

