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Cisco Vision Software Installation and Upgrade Guide

Dynamic Signage Director

Release 6.1

First Published: 2018-07-10

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About This Guide

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This document describes the requirements and tasks to install and upgrade the software for Cisco Vision Dynamic Signage Director Release 6.1.

The content is intended for Cisco Vision Director system administrators and technical field engineers who are responsible for designing and deploying Cisco Vision solutions. Be familiar with basic IP networking, Linux, and VMware virtualization.

This section includes the following topics:

- Document Revision History, page 7
- Document Organization, page 7
- Related Documentation and Resources, page 9

Document Revision History

Table 1 lists the technical changes made to this document since it was first published.

Table 1 Document Revision History

Date	Change Summary
2018-07-10	First release of this document for Cisco Vision Dynamic Signage Director Release 6.1.0-363

Document Organization

This guide includes the following modules:

Chapter	Description
Getting Started Installing or Upgrading Cisco Vision Dynamic Signage Director, page 11	Provides information that you should read before you perform an initial installation or upgrade of the Cisco Vision Dynamic Signage Director Release 6.1 software.
Installing Cisco Vision Dynamic Signage Director for the First Time, page 17	Describes how to install the Cisco Vision Dynamic Signage Director Release 6.1 software on your newly-purchased Platform 3 server hardware from a full ISO image.
Using the Software Manager to Upgrade Cisco Vision Dynamic Signage Director Software, Language Packs, and Fonts, page 21	Describes how to upgrade a Cisco Vision Dynamic Signage Director server already running Cisco Vision Dynamic Signage Director software, as well as how to install language packs and fonts.
Verifying the Upgrade, page 29	Describes how to verify a successful upgrade process.

Document Organization

Chapter	Description
Upgrading the DMP Firmware, page 37	Describes how to obtain and upload firmware for the Series 2 and Series 3 DMPs and how to configure the auto-registration settings.
Appendix A: Post-Upgrade Checklist, page 43	Provides a checklist that is useful after you upgrade your software on a Cisco Vision Dynamic Signage Director server.
Appendix B: Port Reference, page 45	Identifies the ports used by Cisco Vision Dynamic Signage Director.
Appendix C: CIMC Configuration and Firmware Upgrade Guidelines on the Cisco UCS C220 Server, page 51	Provides guidelines for configuring the Cisco Integrated Management Controller (CIMC) interface and performing the initial configuration
000 0220 00.10i, page 0.	Provides guidelines to upgrading the CIMC/BIOS firmware on the Cisco UCS C220 servers for Cisco Vision Dynamic Signage Director.

Related Documentation and Resources

Related Documentation and Resources

Cisco Vision Documentation Go URL

For more information about Cisco Vision Director hardware and software installation, configuration, and operation, see the Cisco Vision documentation available on Cisco.com at:

www.cisco.com/go/stadiumvisiondocs

Release-Specific Documents

- Release Notes for Cisco Vision Dynamic Signage Director Release 6.1
- For the listing page of all Cisco Vision documentation, go to:

http://www.cisco.com/c/en/us/support/video/stadiumvision/tsd-products-support-series-home.html

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Related Documentation and Resources

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Getting Started Installing or Upgrading Cisco Vision Dynamic Signage Director

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Read this module before you perform an initial installation or upgrade of the Cisco Vision Dynamic Signage Director software. It includes the following topics:

- Before You Begin, page 11
- Hardware Prerequisites, page 12
- Overview of the Installation and Upgrade Process, page 14

Before You Begin

Be sure that you understand and have met the following prerequisites before you begin to install or upgrade the Cisco Vision Dynamic Signage Director software:

- Refer to the Release Notes for Cisco Vision Dynamic Signage Director Release 6.1 for the latest information about hardware and software requirements, changes, important notes, and caveats for your software release.
- Determine if you have compatible media player models and firmware versions available.

The media player firmware images are not bundled with the Cisco Vision Dynamic Signage Director software. Download the firmware image separately. For more information about supported firmware versions, see the Release Notes for Cisco Vision Dynamic Signage Director, Release 6.1.

- Be sure that you have a supported browser installed for access to Cisco Vision Dynamic Signage Director as documented in the Release Notes.
- Verify that the Cisco Vision Dynamic Signage Director server is connected to the network using the Ethernet port eth0.
- To access the Cisco Integrated Management Controller (CIMC) for the software installation on a Cisco Integrated Management Controller (CIMC) server, be sure the following requirements are met:
 - Your computer meets the minimum browser and Flash player requirements for Cisco Vision Dynamic Signage Director, and also has Java 1.6 or later installed.
 - You have a laptop connection with access to the Cisco Vision Dynamic Signage Director server network.
 - You have the IP address of the CIMC interface on the Cisco Vision Dynamic Signage Director server.
 - You have the CIMC interface login credential. The default credential is admin and password.

Note: It is difficult to recover from an interrupted installation process if the installation shell is accidentally closed or the network drops. We **strongly recommended** that you use a server console connection method that does not pose a risk to the success of upgrade completion, if the session breaks during upgrade. You also can use a monitor and keyboard that are directly connected to the Cisco Vision Dynamic Signage Director server to log into the TUI.

Hardware Prerequisites

To learn more about the KVM console and the CIMC interface, see the Cisco UCS C-Series Integrated Management Controller Configuration guide that corresponds to your server release at: http://www.cisco.com/c/en/us/support/servers-unified-computing/ucs-c-series-integrated-management-control ler/products-installation-and-configuration-guides-list.html

 Assess your installation environment and see Overview of the Installation and Upgrade Process, page 14 for more information and to find out what modules in this guide you should follow.

Hardware Prerequisites

You can install Release 6.1 on your own server to run the Cisco Vision Dynamic Signage Director software. Follow the requirements in this section to be sure that your virtual environment meets the minimum and tested specifications.

This section includes the following topics:

- Minimum Virtual Machine System Requirements for Cisco Vision Dynamic Signage Director, page 12
- VMware vSphere Tested Versions for Cisco Vision Dynamic Signage Director, page 13
- Restrictions for Virtual Server Support, page 14

Minimum Virtual Machine System Requirements for Cisco Vision Dynamic Signage Director

Be sure that your configuration meets the minimum system requirements. Smaller-scale Cisco Vision Director deployment requirements are show in Table 1 on page 12.

Table 1 Minimum System Requirements for a Virtualized Environment Running Smaller-Scale Cisco Vision Dynamic Signage Director

System Component	Minimum Requirement
Processor	Two processors each equivalent to an Intel Xeon Processor E5-2640 (15 MB cache, 2.50 GHz clock, 7.20 GT/s Intel® QPI)
Forward write (fwrite) operations per second	2,500
Virtual CPUs ¹	4-6, depending on capacity
Virtual Disk Space	225 GB
Virtual RAM (VRAM)	8 GB ²

- 1. Hyperthreading can be used. Be sure that the BIOS is properly configured to enable it.
- 2. Reserve a minimum of 8 GB VRAM to install and operate the Smaller-Scale Cisco Vision Dynamic Signage Director system. Allow additional storage for the ESXi OS.

Be sure that your configuration meets the minimum system requirements in Table 2 on page 13 and supports a VMware virtual machine environment with a compatible vSphere version (See VMware vSphere Tested Versions for Cisco Vision Dynamic Signage Director, page 13).

Note: Install Cisco Vision Dynamic Signage Director servers close to the DMPs that they operate with, such as at the remote venue edge. Cisco Vision Dynamic Signage Director communicates to the players over a LAN.

To maintain software licensing compliance, Cisco Vision Dynamic Signage Director servers must be installed in the following manner:

Hardware Prerequisites

- The Cisco Vision Dynamic Signage Director server is installed in a data center or in an enterprise data closet, or the Cisco Vision Dynamic Signage Director software is installed on the customer's choice of hardware that supports a VMware virtualized environment.
- The Cisco Vision Dynamic Signage Director software is installed on the customer's choice of hardware that supports a VMware virtualized environment, or the remote server hardware is installed in a data center or in an enterprise data closet..

Table 2 Minimum System Requirements for a Virtualized Environment Running Cisco Vision Dynamic Signage Director

System Component	Minimum Requirement
Processor	Two processors each equivalent to an Intel Xeon Processor E5-2640 (15 MB cache, 2.50 GHz clock, 7.20 GT/s Intel® QPI)
Forward write (fwrite) operations per second	10,000
Virtual CPUs ¹	24
Virtual Disk Space	900 GB
Virtual RAM (VRAM)	32 GB ²

- 1. Hyperthreading can be used. Be sure that the BIOS is properly configured to enable it.
- Reserve a minimum of 32 GB VRAM to install and operate the Cisco Vision Dynamic Signage Director system. Allow additional storage for the ESXi OS.

Table 3 on page 13 provides additional information about the tested VM hardware and OS specifications to use when configuring a virtual machine to support Cisco Vision Dynamic Signage Director.

Table 3 Virtual Machine Hardware and OS Specifications Tested for Cisco Vision Dynamic Signage Director

System Component	Specification
VM Hardware	Version 8
Guest Operating System	RedHat Enterprise Linux 5 (64-bit)
Network Adapter	E1000
SCSI Controller	LSI Logic Parallel or LSI Logic SAS
Disk Provisioning	Thick

VMware vSphere Tested Versions for Cisco Vision Dynamic Signage Director

Cisco Vision Dynamic Signage Director has been tested with VMware vSphere version 5.5. Other versions should work, but they have not been tested.

Note: Any VMware license that does not allow your virtual machine to be set to the minimum requirements described in Table 2 on page 13 is not supported.

Overview of the Installation and Upgrade Process

Restrictions for Virtual Server Support

Be sure that you consider the following restrictions before you configure a virtual server environment for Cisco Vision Dynamic Signage Director:

- Migrating to a virtualized environment on your existing Platform 3 servers is not supported. For more information, see Important Migration and Upgrade Notes, page 39 of the Release Notes for Cisco Visio Dynamic Signage Director, Release 6.1.
- When using a virtual server environment, Cisco Technical Support only provides support for the Cisco Vision Dynamic Signage Director software. No support is provided for third-party hardware or the virtual OS environment installed by the customer.
- We recommend a dual virtual server environment to support a primary and backup server using the standard Cisco Vision Dynamic Signage Director backup/restore and failover tools.
- Cisco has not tested and does not provide support for any VMware tools in a Cisco Vision Director system. If your site chooses to use backup, recovery or other tools outside of the Cisco Vision Dynamic Signage Director software to manage your virtual servers, you accept the risks and responsibility associated with securing your data.

Overview of the Installation and Upgrade Process

There are different tasks required to install or upgrade your Cisco Vision Dynamic Signage Director server for software Release 6.1 depending on your current server environment:

- Installing on a Virtual Server for the First Time, page 14
- Upgrading an Existing Server Already Running Cisco Vision Dynamic Signage Director, page 15

Installing on a Virtual Server for the First Time

The installation process for a virtual server running Cisco Vision Dynamic Signage Director software for the first time involves the following tasks:

- Verifying that your virtual server meets the requirements listed in Table 2 on page 13 or Table 2 on page 13.
- Configuring the virtual machine specifications according to the tested specifications with Cisco Vision Dynamic Signage Director provided in Table 3 on page 13.
- Installing VMware client software.

Note: Cisco Vision Dynamic Signage Director has been tested with VMware vSphere version 5.5. Other versions should work, but they have not been tested.

Any VMware license that does not allow your virtual machine to be set to the minimum requirements described in Table 2 on page 13 is not supported.

- Loading the Cisco Vision Dynamic Signage Director software full ISO.
- Running the installation.
- Upgrading the media player firmware.

For detailed information, see Installing Cisco Vision Dynamic Signage Director for the First Time, page 17.

Overview of the Installation and Upgrade Process

Upgrading an Existing Server Already Running Cisco Vision Dynamic Signage Director

Note: Always check the current Release Notes for the release from which you are updating. The upgrade paths and Service Pack information is always there and may be more current than a manual.

Upgrading From Cisco Vision Dynamic Signage Director Release 6.0

The upgrade process from an existing Cisco Vision Dynamic Signage Director Release 6.0 system involves the following tasks:

- Upgrading the Cisco Vision Dynamic Signage Director software
- Upgrading the media player firmware

See Using the Software Manager to Upgrade Cisco Vision Dynamic Signage Director Software, Language Packs, and Fonts, page 21 and Upgrading the DMP Firmware, page 37.

Upgrading From Cisco Vision Dynamic Signage Director Release 5.0

Note: Always check the current Release Notes for the release from which you are updating. The upgrade paths and Service Pack information is always there and may be more current than a manual.

You can upgrade an existing server already running Cisco Vision Dynamic Signage Director software in the following sequences:

- 5.0.0-526 (Service Pack 2) > 5.0.0-605 (Service Pack 3) > 5.0.0-709 (Service Pack 4) to > 5.0.0-820 (Service Pack 5) > 5.0.0-909 (Service Pack 6) > 6.0.0-740
- 5.0.0-820 (Service Pack 5) > 6.0.0-740
- 5.0.0-909 (Service Pack 6) > 6.0.0-740

Use an upgrade ISO image file available from Cisco.com and using the upgrade option from the Software Manager in the web browser interface.

Note: The upgrade process has specific prerequisite tasks that must be followed to support a successful upgrade. Cisco Vision Dynamic Signage Director Release 6.1 does not support Cisco DMP 4310G devices, Flash files, or GAR files. The Cisco DMP 4310G devices and any Flash content must be removed from your system prior to upgrade, or the upgrade ISO to Release 6.0 *will not proceed*. Flash content includes legacy ticker files, and any Flash from external content or generic data sources.

Any legacy GAR files remaining in the system will not cause an upgrade to Release 6.0 to abort. However, the GAR files will no longer be accessible in the system so it is highly recommended that any GAR files also be removed.

The upgrade process from an existing Cisco Vision Dynamic Signage Director Release 5.0 system involves the following tasks:

- Preparing your Release 5.0 system for upgrade to Release 6.0.
- Upgrading the Cisco Vision Dynamic Signage Director software.
- Upgrading the media player firmware.

See Using the Software Manager to Upgrade Cisco Vision Dynamic Signage Director Software, Language Packs, and Fonts, page 21 and Upgrading the DMP Firmware, page 37.

Getting Started Installing or Upgrading Cisco Vision Dynamic Signage Director

Overview of the Installation and Upgrade Process

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Installing Cisco Vision Dynamic Signage Director for the First Time

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This module describes the requirements for installing Cisco Vision Dynamic Signage Director on a VM (virtual machine).

CAUTION: You must install the Cisco Vision Dynamic Signage Director Release software from a full ISO image (not an upgrade) that you down loaded from Cisco.com to be sure that you are running the released production version of Cisco Vision Dynamic Signage Director.

This module includes the following topics:

- Prerequisites, page 17
- Installation Tasks, page 18
- What To Do Next, page 19

Prerequisites

Refer to the Release Notes for Cisco Vision Dynamic Signage Director 6.1 for the latest information about hardware and software requirements, changes, important notes, and caveats for your software release.

Be sure that the following requirements are met before you upgrade your server:

Virtualized Server Environment

Installing Cisco Vision Dynamic Signage Director in a virtualized server environment includes setting up your server environment, running the full ISO for Cisco Vision Dynamic Signage Director, and configuring the network. For more information see Hardware Prerequisites, page 12 and Installing on a Virtual Server for the First Time, page 14 in Getting Started Installing or Upgrading Cisco Vision Dynamic Signage Director, page 11.

Platform 3 Servers

- Your server is installed in its production location. For more information about installing your Platform 3 hardware, see the Cisco UCS C220 Server Installation and Service Guide.
- You have completed the initial server setup and configured the Cisco UCS C-Series Integrated Management Controller (CIMC) interface.

To configure the CIMC, you will need an additional IP address for the server and should be prepared to change the default login and password. Be sure that the server is configured for standalone mode with the following settings:

- DHCP-Disabled
- NIC redundancy—None
- Boot order-Virtual CD/DVD, HDD

For more information, see Appendix C: CIMC Configuration and Firmware Upgrade Guidelines on the Cisco UCS C220 Server, page 51.

Installation Tasks

- You have the network information required to configure the Ethernet connection on the Cisco Vision Dynamic Signage Director server, such as:
 - IP address (IPv4 only) and network mask

Note: The Cisco Vision Dynamic Signage Director server should be configured with a static IP address or a non-expiring DHCP lease.

- Default gateway address
- DNS server address
- Hostname
- The Cisco Vision Dynamic Signage Director server is connected to the network and has power.
- Power on the server and verify the boot order in the BIOS (by pressing F2 while booting) prior to installation.
- To access the Cisco Integrated Management Controller (CIMC) for the software installation, the following requirements are met:
 - Your computer meets the minimum browser and Flash player requirements for Cisco Vision Dynamic Signage Director, and also has Java 1.6 or later installed.
 - You have a laptop connection with access to the Cisco Vision Dynamic Signage Director network.
 - You have the IP address of the CIMC interface on the Cisco Vision Dynamic Signage Director server.
 - You have the CIMC interface login credential. The default credential is admin and password.

Installation Tasks

Note: This section includes the tasks to install Cisco Vision Dynamic Signage Director for the first time on a Platform 3 server.

To install Cisco Vision Dynamic Signage Director for the first time on a Platform 3 server, complete the following tasks:

- Downloading the ISO Files from Cisco.com, page 18 (required)
- What To Do Next, page 19 (required)

Downloading the ISO Files from Cisco.com

You are eligible to obtain information about how to access the Cisco Vision Dynamic Signage Director full ISO file after you have purchased the proper licensing. Contact Cisco Technical Support for information about how to download the ISO file (Table 1 on page 19).

Note: Be sure that you choose the ISO for SV-DIRECTOR.

What To Do Next

Table 1 on page 19 shows the filename conventions used for full ISO images for the Cisco Vision Dynamic Signage Director server.

Table 1 ISO Filename Conventions

Hardware Product ID	Filename Convention ¹
SV-PLATFORM3=	■ SV-DIRECTOR-FULL-6.1.0-386.x86_64.iso
	■ SV-DIRECTOR-UPGRADE-6.1.0-386.x86_64.iso.md5sum
	■ SV-DIRECTOR-FULL-6.1.0- <i>386</i> x86_64.iso.sha256sum

^{1. &}quot;386" represents the build number of the image in the file.

Be sure to download the ISO files to a location where you can access them once logged into the CIMC interface.

To verify the integrity of your upgrade file from the download, you can use a command-line or GUI utility on your laptop to calculate the checksum on the .iso file. Open the .sha256sum file to compare the value that you calculated with the expected value provided in the .sha256sum file. The values should match. If they do not, retry the download.

Logging Into the CIMC Interface

Note: To log into the CIMC interface, check the previous version of this document on Cisco.com. All the requirements and steps are available to read.

What To Do Next

After you have installed the Cisco Vision Dynamic Signage Director software, do the following:

Note: For initial deployments of the Series 2 and Series 3 media players, follow the instructions in the Cisco Vision Deployment Guide for Series 2 and Series 3 Media Players: Dynamic Signage Director, Release 6.0.

Upgrade the DMP firmware (required).

See Upgrading the DMP Firmware, page 37.

- Go to the "Configuring Cisco Vision Director Server System Settings" module of the Release 6.1: Cisco Vision Administration Guide: Dynamic Signage Director to complete initial setup of the server and do the following:
 - Generate the SSL certificate (required for Release 6.0).
 - Configure NTP on Cisco Vision Dynamic Signage Director Servers and DMPs.
 - Configure NTP and PTP for the DMPs.

Note: By default, all media players use the Cisco Vision Dynamic Signage Director server as the NTP source. When using PTP on the DMPs, only the PTP master device references an NTP source. To change the NTP source used by the DMPs, change the DMP global settings.

Configure multicast ports for Cisco Vision Dynamic Signage Director.

What To Do Next

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Using the Software Manager to Upgrade Cisco Vision Dynamic Signage Director Software, Language Packs, and Fonts

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This module describes using the Cisco Vision Dynamic Signage Director Software Manager to:

- Upgrade an existing server already running Cisco Vision Director (Release 5.0 or later) to a later release in the supported upgrade path.
- Install language packs and fonts.

This module includes the following topics:

- Best Practices, page 21
- Prerequisites, page 22
- Information About Using the Software Manager to Update Existing Cisco Vision Dynamic Signage Director Software, page 23
- Upgrade Tasks, page 23
- Installing Language Packs, page 26
- Installing Fonts, page 27
- What to Do Next, page 28

Best Practices

Caution: Do not alter the RAID configuration prior to upgrade.

Before you begin upgrading an existing Cisco Vision Dynamic Signage Director server, consider the following best practices:

- Choose an appropriate down time to perform the upgrade on the server when there is adequate time to complete and verify the upgrade before any scheduled events and to allow time to resolve any unexpected issues.
- See Release Notes for Cisco Vision Dynamic Signage Director Release 6.1 for the latest information about hardware and software requirements, changes, important notes, and caveats for your software release.
- Know the required hardware and software versions for other devices supporting your Cisco Vision Director solution. Upgrade those devices as needed. For example, generally only certain firmware versions are supported for the DMP hardware, or a new firmware version is needed to provide additional functionality supported by the Cisco Vision Dynamic Signage Director software.
- Perform a backup and restore of the primary and secondary servers:

Prerequisites

- Perform a backup of the currently active primary server.
- Restore the backup data onto the standby secondary server.

Note: To do the restore, run the config service on the secondary server.

For more information about performing a backup and restore on a Cisco Vision Dynamic Signage Director Server, see the "Backing Up and Restoring Cisco Vision Dynamic Signage Director Servers" module of the Cisco Vision Administration Guide: Dynamic Signage Director.

Promote the secondary server to primary.

For more information about promoting a secondary server to primary, see the "Configuring Failover Between Redundant Cisco Vision Dynamic Signage Director Servers module of the Cisco Vision Administration Guide: Dynamic Signage Director.

- Access the promoted secondary server to perform the upgrade.
- Verify the boot order in the BIOS (by pressing F2 while booting) prior to upgrading; the virtual DVD should be the primary boot device for the Platform 3 server.
- It is difficult to recover from an interrupted installation process if the Linux shell is accidentally closed or the network drops. We highly recommended that you use a server console connection method that does not pose a risk to the success of upgrade completion, if the session breaks during upgrade. You also can use a monitor and keyboard that are directly connected to the Cisco Vision Dynamic Signage Director server into the web browser interface.

Prerequisites

Be sure that the following requirements are met before you upgrade your server:

- Your server is running a minimum of Cisco Vision Dynamic Signage Director Release 5.0.0-526 (SP2) or higher.
- Your system is ready for an upgrade from Release 5.0. See Preparing a Release 5.0 System for Upgrade to Cisco Vision Dynamic Signage Director Release 6.1., page 22.
- You have the IP address for the server where you want to upload the ISO upgrade image. Use this information as part of the URL to access the ISO upload utility.
- You have a supported browser version for Cisco Vision Dynamic Signage Director. For more information about the latest supported browsers, see Release Notes for Cisco Vision Dynamic Signage Director Release 6.1.

Preparing a Release 5.0 System for Upgrade to Cisco Vision Dynamic Signage Director Release 6.1.

Note: See the previous release of this manual (Cisco Vision Software and Installation Upgrade Guide: Dynamic Signage Director (StadiumVision Director), Release 6.0) for these upgrading steps.

What To Do Next

- Upgrade your system to Cisco Vision Dynamic Signage Director Release 6.1.
- Using the BAT, associate the replacement DMPs to the original DMP 4310G Locations.

Information About Using the Software Manager to Update Existing Cisco Vision Dynamic Signage Director Software

Information About Using the Software Manager to Update Existing Cisco Vision Dynamic Signage Director Software

The ISO upgrade procedure for Cisco Vision Dynamic Signage Director includes the following tasks:

- 1. Downloading an ISO service pack or upgrade file from the software download site on Cisco.com.
- Uploading the ISO file from your laptop to the Cisco Vision Dynamic Signage Director server using the Software Manager.
- 3. Installing the ISO image using the install function in the Software Manager.

ISO Upgrade Files

You can store multiple ISO upgrade files on a Cisco Vision Dynamic Signage Director server. The files will be displayed with a version number and the ISO filename in the Software Manager web browser interface for you to select which file to install.

Disk Maintenance

There is no automatic aging of ISO upgrade files, but you can delete files directly in the Software Manager. Delete ISO files via the TUI: **Troubleshooting > Disk Monitoring > Delete Files > Clean upgrade ISO files**.

The Management Dashboard has a gauge for % Disk Utilization or you can use the TUI to get file system usage.

Note: To conserve disk space if you have installed language packs in your current system, use the Software Manager prior to upgrade to remove the language files. There is no harm to the system if you do not remove them. However, the language files will not appear in the Software Manager for removal *after* you upgrade; they will remain in storage.

Upgrade Tasks

To upgrade your Cisco Vision Dynamic Signage Director server, complete the following tasks:

- Downloading ISO Upgrade Files from Cisco.com, page 24 (required)
- Uploading and Installing an ISO Upgrade File on the Cisco Vision Dynamic Signage Director Server, page 24 (required)
- Rebooting the Cisco Vision Dynamic Signage Director Server, page 26 (required)
- Installing Language Packs, page 26 (as required)
- Installing Language Packs, page 26 (as required)
- Installing Language Packs, page 26 (required)
- Installing Language Packs, page 26 (required)

Upgrade Tasks

Downloading ISO Upgrade Files from Cisco.com

Download the upgrade files to a location, such as a laptop computer, where you can access them for installation onto the Cisco Vision Dynamic Signage Director server.

To download an ISO upgrade file:

1. Go to the Cisco Vision Director software download site.

Note: This site page is available from the Cisco StadiumVision Director product support page by clicking **Download Software > Cisco StadiumVision Director**.

2. Select the ISO upgrade or service pack file (as available), and optionally the companion sha256checksum file, and download them.

Table 1 shows the filename conventions used for ISO upgrades.

Note: Choose the ISO for SV-DIRECTOR.

Table 1 ISO Upgrade Filename Conventions

Filename Convention¹

- SV-DIRECTOR-UPGRADE-6.1.0-363.x86_64.iso
- SV-DIRECTOR-UPGRADE-6.1.0-363.x86_64.iso.filenamesum
- SV-DIRECTOR-UPGRADE-6.1.0-363.x86_64.iso.filenameSHAsum
- 1. "363" represents the build number of the image in the file.

Download the files using one of the following methods:

- Download both files at one time—Select each file and click Add to Cart. Then at the top of the download page, click the "Download Cart (2 items)" link.
- Download each file independently-Click the **Download Now** button in the file selection box for each file.
- **3.** (Optional) To verify the integrity of your upgrade file from the download, use the Software Manager UI to verify the checksum on the .iso file.

The SHA256 checksum is calculated by the system and is shown on the Software Manager UI. Compare what is shown on the UI and the downloaded SHA256 checksum.

The values should match. If they do not, retry the download.

Uploading and Installing an ISO Upgrade File on the Cisco Vision Dynamic Signage Director Server

After you download the ISO upgrade file from Cisco.com, use the Software Manager to upload the file to the Cisco Vision Dynamic Signage Director server and to install the upgrade image.

Prerequisites

Know the IP address of the server where you want to upload the file. Use a supported browser version for Cisco Vision Dynamic Signage Director.

Upgrade Tasks

Task

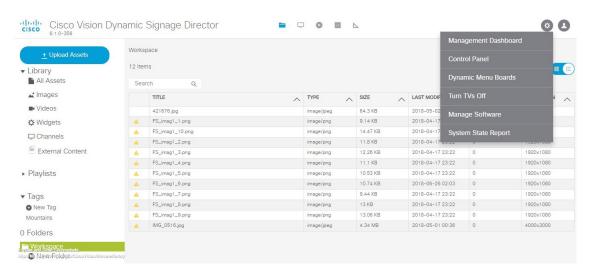
To upload and install an ISO upgrade file on the Cisco Vision Dynamic Signage Director server:

- 1. Log into Cisco Vision Dynamic Signage Director as an Administrator.
- 2. From your browser, go to the following URL:

http://x.x.x.x

where x.x.x.x is replaced by the IP address of the server where you want to upload the upgrade software.

3. Click Tools > Manage Software.



4. From the **Upgrade** tab, click **Upload** (Figure 1 on page 25).

Figure 1 ISO File Selection and Upload

Cisco Vision Dynamic Signage Director - Software Manager



5. Navigate to the location of the ISO upgrade file that you downloaded from Cisco.com. Select the file that you want to upload and click **Open**. The file is sent to the server.

When the ISO upload completes, one of the following occurs:

- When the image is validated and uploaded successfully, a message displays stating that the ISO image has been uploaded.
- The image upload failed. Retry the upload.

Caution: The upload might take several minutes. Do *not* refresh or reload the Software Manager page while the upload process is running. Any interruption will corrupt the ISO image being uploaded.

Installing Language Packs

6. Click Install.

Note: Upon successful upload, you will see an entry with the newly uploaded upgraded ISO file. Verify that the displayed checksum matches the checksum from the Cisco download site.

- 7. The installation process begins and status messages display.
- 8. After the installation completes, Cisco Vision Dynamic Signage Director services restart.

Rebooting the Cisco Vision Dynamic Signage Director Server

To reboot the Cisco Vision Dynamic Signage Director server:

- 1. Log into the TUI as installer. The TUI Main Menu displays.
- 2. Go to the Cisco Vision Server Administration menu.
- 3. Select Reboot.
- 4. At the confirmation prompt, press Y to start the reboot process.

Installing Language Packs

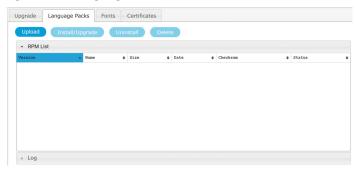
Note: Language packs are release-specific. When the language packs for 6.1 become available, upload the relevant language pack and install it. Install language packs for Release 6.1, **after** you install or upgrade to the required 6.1 release.

Upload and install only the specific language(s) that you want to support through the independent installation of Language Packs. Perform the upload and installation of the language packs using Cisco Vision Dynamic Signage Director.

To install language packs:

- 1. Download the desired language pack from Cisco.com.
- 2. Log into Cisco Vision Dynamic Signage Director as an Administrator.
- 3. Go to Tools > Manage Software.
- 4. From the Software Manager screen, click Language Packs (Figure 2 on page 26).

Figure 2 Language Packs Tab



- 5. Click Upload.
- 6. In the File Upload dialog box, navigate to the downloaded Language Pack RPM file, and click Open. The language pack is sent to the server.

Installing Fonts

7. Click Install/Upgrade to install the language pack.

Note: If you are using a secondary Cisco Vision Dynamic Signage Director server, install the language pack on both the primary and secondary servers.

- 8. (SV-4K and DMP-2K only) To transfer the locales to the SV-4K and DMP-2K media players, do the following:
 - a. From Tools > Management Dashboard, go to:

DMP and TV Controls > DMP Install > Restore Default Settings

- b. In the Select Devices panel, select the SV-4K, DMP-2K, Series3 CV-UHD, or Series3 CV-HD media player devices.
- c. To execute the command, click the play (>) button located at bottom left of the panel.
- Stage content to the media players.

For more information, see the "Staging Content to the Media Player" topic in the Cisco Vision Director Operations Guide.

Installing Fonts

Note: Follow these guidelines to install new fonts on your system for use in the Widgets tool. These fonts are not used for external HTML pages. This section includes the following topics:

- Guidelines for Installing Fonts, page 27
- Procedure, page 27

Guidelines for Installing Fonts

Note: In Cisco StadiumVision Director Release 4.1 and later releases, the unifont.ttf font is embedded in the media player firmware. This means that the font is available as a fallback font to external HTML pages that might not explicitly reference fonts in their CSS.

Consider the following guidelines before installing fonts:

- To save system memory on the media player, install fonts that have the minimal set of required characters.
- Asian languages like Chinese (which contain more glyphs) require more memory.
- The fallback font is Arial; it is the default font in cases where the widget is referencing a font that is not available.
- Only True Type fonts (.ttf) and OpenType fonts (.otf) are supported.

Procedure

To install fonts:

1. Obtain the desired fonts.

Note: Fonts must be TrueType (.ttf) or OpenType (.otf).

- 2. Log into Cisco Vision Dynamic Signage Director as an Administrator.
- 3. Go to Tools > Manage Software.

What to Do Next

4. From the Software Manager screen, click Fonts (Figure 3 on page 28).

Figure 3 Fonts Tab



- 5. Click Upload.
- 6. In the Font Upload dialog box, do the following:
 - a. Click Browse.
 - b. Navigate to the location of your font file and click Open.
 - c. Click Upload.
- 7. Stage content to the media player.

For more information, see the "Staging Content to the Media Player" topic in the Cisco Vision Director Operations Guide.

What to Do Next

- Follow the steps in Verifying the Upgrade, page 29 to verify that the upgrade process was successful.
- Use Appendix A: Post-Upgrade Checklist, page 43 to complete the required verification steps.
- Import DMP Certificates. See Importing Certificates on the DMP in the Cisco Vision Administration Guide: Release
 6.1 or the Release Notes for Cisco Vision Dynamic Signage Director, Release
 6.1.

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Verifying the Upgrade

First Published: 2018-07-10

This module describes how to verify that the upgrade process was successful.

To verify the upgrade, complete the following tasks:

- Clearing the Browser Cache, page 29 (mandatory)
- Clearing Expired Flash SWZ Files From Browser, page 30 (required)
- Importing the Security Certificate, page 31 (required)
- Logging Into Cisco Vision Dynamic Signage Director, page 32 (required)
- Verifying the Control Panel and Other Menus, page 32 (required)
- Verifying that Services are Running, page 32 (required)
- Configuring the Media Player for VLAN Compliance Checking, page 33 (required)
- Upgrading the DMP Firmware, page 34 (required)
- Rebooting the DMPs, page 35 (required)
- Verifying Media Players, Groups, and Zones in the Management Dashboard, page 35 (required)
- Verifying the Multicast Configuration, page 36 (required)
- Completing the Post-Upgrade Checklist and Testing, page 36 (required)

Clearing the Browser Cache

Caution: It is critical that *all* Cisco Vision Dynamic Signage Director users clear their browser cache to prevent permanent database corruption and to be sure that you are running the latest version of Cisco Vision Dynamic Signage Director. Be sure to notify all users of the Cisco Vision Dynamic Signage Director system to clear their browser cache before using the system after an upgrade.

To clear the browser cache in Mozilla FireFox:

1. From the menu bar, go to Tools > Clear Recent History.

The Clear Recent History dialog box appears.

Note: You can also press Ctrl + Shift + Delete to open the Clear Recent History dialog box.

- 2. In the "Time range to clear:" box, select Everything.
- 3. Open the Details drop-down list and select the Cache checkbox if it does not have a checkmark.
- 4. Click Clear Now.

Clearing Expired Flash SWZ Files From Browser

Clearing Expired Flash SWZ Files From Browser

This section includes the following tasks:

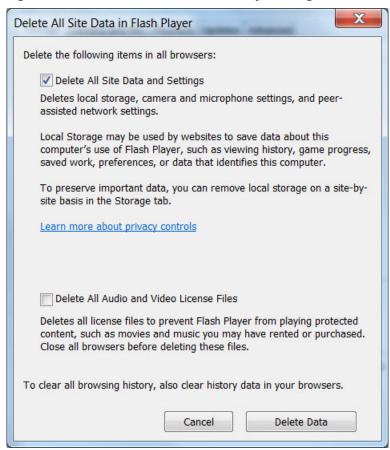
- Clearing the Flash Player Cache, page 30
- Deleting Other Cached Files From Flash, page 31

Clearing the Flash Player Cache

To clear the Flash player cache:

- 1. Go to Control Panel > Flash Player.
- 2. In the Flash Player Manager Settings dialog box (Storage tab), click Delete All.
- 3. Select Delete All Site Data and Settings (Figure 1 on page 30).

Figure 1 Delete All Site Data in Flash Player Dialog Box-Windows Client Example



4. Click Delete Data.

Importing the Security Certificate

Deleting Other Cached Files From Flash

To delete other cached files from Flash:

- 1. Close the browser window.
- 2. Delete cached files in the following paths for your browser application and depending on your laptop client:

From a Windows client:

For Chrome

C:\Users\username\AppData\Local\Google\Chrome\User Data\Default\Pepper Data\ShockwaveFlash\CacheWritableAdobeRoot\AssetCache

For Mozilla Firefox

C:\Users\username\AppData\Local\Mozilla\Firefox\Profiles

Note: The AppData folder is a hidden folder in Microsoft Windows. If you cannot view it, go to **Control Panel > Folder Options** and verify the option is set to display hidden files and folders.

From an Apple Mac OS X client:

For Chrome

/Users/username/Library/Application Support/Google/Chrome/Default/Pepper Data/ShockwaveFlash/CacheWritableAdobeRoot/AssetCache/

For Mozilla Firefox

/Users/username/Library/Application Support/Firefox/Profiles/

Importing the Security Certificate

When you access a Cisco Vision Dynamic Signage Director server for the first time using Mozilla Firefox, a security certificate warning appears. Some Cisco Vision Dynamic Signage Director functionality requires that the certificate is imported.

Adding a Security Exception for Mozilla Firefox

To add the security exception for Mozilla Firefox:

- When you see the warning page with the title "This Connection is Untrusted," click the "I Understand the Risks" option.
- 2. Click Add Exception....
- 3. In the Add Security Exception dialog box, click Confirm Security Exception.
- 4. Close all Mozilla Firefox windows.

You should now be able to access the Cisco Vision Dynamic Signage Director server using Mozilla Firefox without any security certificate warnings.

Logging Into Cisco Vision Dynamic Signage Director

Logging Into Cisco Vision Dynamic Signage Director

To verify that the upgrade was successful and that Cisco Vision Dynamic Signage Director is up and operating:

1. Open a browser window and type the URL for the Cisco Vision Dynamic Signage Director server, in the following sample format, where *x.x.x.x* is the IPv4 address of the server:

https://x.x.x/CiscoVision/login.html

or alternatively,

http://x.x.x.x

The Cisco Vision Dynamic Signage Director login screen appears.

2. Type your Cisco Vision Dynamic Signage Director administrator login credentials and click Log In.

Note: When you first log into Cisco Vision Dynamic Signage Director, the default administrator username and password is *admin*.

The Cisco Vision Dynamic Signage Director Asset Library screen appears.

3. Verify that the correct version displays in the upper left of the screen.

Note: If your window does not display the correct version, clear the browser cache as described in Clearing the Browser Cache, page 29.

Verifying the Control Panel and Other Menus

To verify the control panel:

- 1. From the Cisco Vision Dynamic Signage Director **Main Menu**, go to **Tools > Control Panel**. After a few moments of loading resources, the Cisco Vision Dynamic Signage Director Control Panel Setup screen opens in a new window.
- 2. Confirm the version and build number of your Cisco Vision Dynamic Signage Director software in the upper left of the **Library** (Main Menu) screen.

Note: If your window does not display the appropriate version and build that you loaded, clear the browser cache as describe in Clearing the Browser Cache, page 29.

3. Verify that you can open the other Cisco Vision Dynamic Signage Director screens and menus.

Verifying that Services are Running

After you upgrade, go to **Tools > Management Dashboard** to verify that all of the primary Cisco Vision Dynamic Signage Director services are running.

To verify that services are running:

- 1. Go to Tools > Management Dashboard > Monitor and Status drawer > Services folder.
- 2. Expand the Service Alerts pane.
- 3. Verify that all of the primary services—in particular the Content Management CMS Server—are in "Normal" (green) state without any service alerts.

Configuring the Media Player for VLAN Compliance Checking

Figure 2 Verifying Normal Service States



If the CMS server or another service in the above list is not in Normal state but should be, use the TUI services menu to restart it. See

Configuring the Media Player for VLAN Compliance Checking

After you upgrade, go to the Management Dashboard and change the Assigned VLAN property according to your VLAN configuration for the media players if you want to perform VLAN compliance checking.

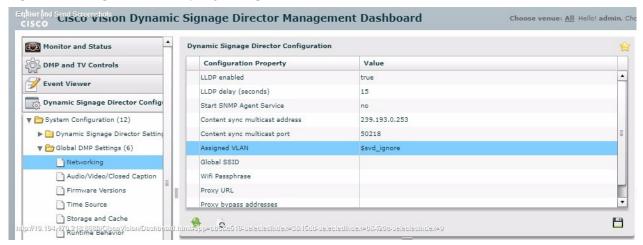
Note: We recommend setting the assigned VLAN property for the media players if all devices are located on the same VLAN. When a value is set, it is checked against what is being sent by the media player. Otherwise, configure **\$svd_ignore**, which is the default.

To configure the Assigned VLAN property

- Go to Tools > Management Dashboard > Dynamic Signage Director Configuration > System Configuration > Global DMP Settings.
- 2. Do the following, depending on your media player model:

Upgrading the DMP Firmware

Figure 3 Assigned VLAN Property Configuration for the CV-UHD and SV-HD DMPs



Go to SV-DMP Common Settings (Figure 4 on page 34).

Figure 4 Assigned VLAN Property Configuration for the SV-4K and DMP-2K



- 3. Find the Assigned VLAN property and do the following:
- If all of your DMPs are located on the same VLAN (recommended)—Type the number of the VLAN.
- If all of your DMPs are not located on the same VLAN, or you want to bypass any VLAN compliance checking—Type "\$svd_ignore."
- 4. Click the Save icon.

Upgrading the DMP Firmware

Verify whether your DMPs require a firmware upgrade and follow the steps in the corresponding modules of this guide to upload and install the required version(s) for your Cisco Vision Dynamic Signage Director release.

Note: If this is the initial upgrade of your system to Cisco Vision Dynamic Signage Director Release 6.1 software, a new firmware upgrade and configuration for the firmware is required. Follow the steps in Upgrading the DMP Firmware, page 37.

Rebooting the DMPs

Rebooting the DMPs

After an upgrade of the Cisco Vision Dynamic Signage Director software, restart the DMP to get the latest version of the runtime software.

- If this is the initial upgrade of your system to Release 6.1 and you performed a DMP firmware upgrade, then the DMPs already rebooted. Do not reboot the DMPs.
- If this an upgrade from Release 6.0 to Release 6.1 without a DMP firmware upgrade, then reboot the DMP to update the DMP's runtime software.

To verify the system runtime on the DMP, see Verifying Media Players, Groups, and Zones in the Management Dashboard, page 35.

Verifying Media Players, Groups, and Zones in the Management Dashboard

Note: Before you verify media player status, set the Assigned VLAN property so that the VLAN compliance check can be performed. For more information, see Configuring the Media Player for VLAN Compliance Checking, page 33.

To check media players, groups, and zones after you upgrade your software:

- Go to Tools > Management Dashboard and verify that all of your groups, zones and media players are present and in the green state.
- 2. From the **DMP and TV Controls** drawer, run the **Get Status** command on all devices to update Cisco Vision Dynamic Signage Director's record of MAC addresses:

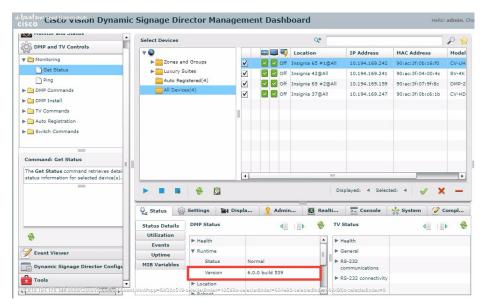
DMP and TV Controls > Monitoring > Get Status.

3. Run Get Status to confirm that all devices successfully reboot and are in good health.

Note: This will also update the MAC address for the media players.

- 4. Verify that the correct Cisco Vision Dynamic Signage Director runtime version is loaded on the DMP:
 - a. Select the DMP(s) that you want to verify. Click the Play icon.
 - b. Go to Status > Status Details.
 - c. In the DMP Status panel, expand the Runtime status and verify the Version reported.

Verifying the Multicast Configuration



- 5. (Optional) Change the DMP State of healthy DMPs to "Production" using the following dashboard command path: DMP and TV Controls > Auto Registration > Change DMP State.
- 6. Run Get Status to check the device state after the change.
- 7. Investigate any devices that are not in "Normal" state.

Verifying the Multicast Configuration

Cisco Vision Dynamic Signage Director uses both unicast and multicast communications for DMP control-plane operation. The Cisco Connected Stadium design requires that Cisco Vision Dynamic Signage Director uses the 239.193.0.0 multicast group address range.

The multicast group address for Cisco Vision Dynamic Signage Director is configured in the "MulticastHostPort" registry.

For more information about multicast configuration, see the "Configuring Multicast Ports for Cisco Vision Director" topic in the "Configuring the Cisco Vision Director Server System Settings" module of the Cisco Vision Server Administration Guide: Dynamic Signage Director.

To verify or configure the multicast addressing for Cisco Vision Dynamic Signage Director:

- 1. Go to Tools > Management Dashboard. Select Tools drawer > Advanced > Registry.
- 2. Scroll to the "MulticastHostPort" registry key in the Parameters list and confirm the entry for the registry.
- 3. To change the value, click on the value field and specify a multicast address in the range 239.193.0.0/24.

Note: Be sure to use the value that is configured in your Cisco Connected Stadium network and include the *:port*. The recommended default is **:50001**.

4. Click Apply.

Completing the Post-Upgrade Checklist and Testing

Use Appendix A: Post-Upgrade Checklist, page 43 to verify you completed the required steps.

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Upgrading the DMP Firmware

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Note: This module describes how to upgrade the firmware for Cisco Vision Dynamic Signage Director Release 6.1. If you are deploying a Series 2 or Series 3 media player for the first time, see Cisco Vision Deployment Guide for Series 2 and Series 3 Media Players: Dynamic Signage Director.

Caution: Immediately after installing Cisco Vision Dynamic Signage Director Release 6.1, configure the new auto-registration settings in the Management Dashboard. Failure to perform this configuration can cause the media player to repeatedly boot.

The Series 2 and Series 3 firmware upgrade is not initiated from the Management Dashboard. It is done automatically when the device starts up or reboots.

Each time a Series 2 or Series 3 device is powered on or reboots, a compliance check is done against the firmware that is loaded on the device against the Cisco Vision Dynamic Signage Director auto-registration settings. If the firmware versions do not match, the device initiates a firmware upgrade automatically.

In Cisco StadiumVision Director Release 4.1 and later releases, the DMPs require that a minimum—or *base*—firmware version is provisioned before they can be upgraded to the *production* firmware version supported in Cisco Vision Dynamic Signage Director Release 6.1.

An auto-registration configuration requirement ensures that this required firmware upgrade sequence is automatically preserved for affected media players in the system.

With proper configuration, the system upgrades existing media player firmware to the prerequisite or base firmware versions automatically, before provisioning the production firmware version supported in Release 6.1.

Contents

- Prerequisites, page 37
- Provisioning Tasks, page 38

Prerequisites

Before you upgrade the DMP firmware, be sure that the following requirements are met:

Caution: For initial deployment of a new DMP-2K, verify:

- No other accessories are attached to the DMP-2K.
- You are using standard Category 5e or 6 cabling up to 100 m in length.

- You have read the Release Notes for Cisco Vision Dynamic Signage Director Release 6.1 to obtain the latest information and to verify the supported DMP firmware upgrade paths.
- The Connected Stadium switch is configured, including the required LLDP for proper POE+ operation.
- A DHCP server has been configured with required Option 60 and Option 43 properties.

For more information, see the Cisco Vision Dynamic Signage Solution Operation and Network Requirements available to qualified Cisco Vision partners.

Provisioning Tasks

To provision the firmware, complete the following tasks:

- Downloading the Firmware for All Media Players, page 38 (required)
- Uploading the DMP Firmware to Cisco Vision Dynamic Signage Director, page 38 (required)
- Configuring the DMPs for Auto-Registration, page 40 (required)

Downloading the Firmware for All Media Players

The media player firmware image is not bundled with the Cisco Vision Dynamic Signage Director software.

Note: Download the firmware to a device that you also can use to access the Cisco Vision Dynamic Signage Director software.

Downloading the Series 2 and Series 3 Production Firmware

To download the Series 2 and Series 3 production firmware, go to:

https://www.brightsign.biz/downloads/dmp-firmware-download-6083-0516

Downloading the Series 2 DMP Base Firmware

If you do not already have one of the required base firmware versions uploaded to Cisco Vision Dynamic Signage Director, download the firmware image separately from a password-protected site and then upload it to Cisco Vision Dynamic Signage Director.

Contact your Cisco Systems representative for the "How to Download SV-4K Firmware" document, available to qualified Cisco Vision (StadiumVision) partners.

Uploading the DMP Firmware to Cisco Vision Dynamic Signage Director

After you obtain the DMP firmware image from the external vendor, upload the image to Cisco Vision Dynamic Signage Director.

Caution: For Series 2 and Series 3 DMPs, upload the firmware version to the Cisco Vision Dynamic Signage Director server:

Base firmware version-7.0.92

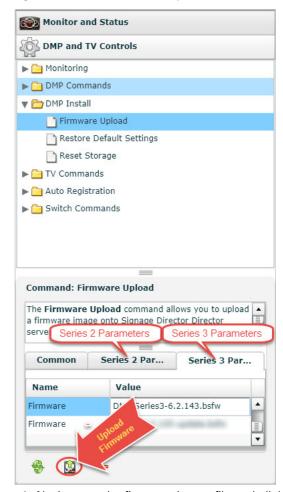
Production firmware version-7.0.92 for Series 2 or Series 3

Note: Use Management Dashboard, the Firmware Upgrade page, to upload the firmware. Do **not** run the command to provision the software on the device from there. Each time the device powers on or reboots, a compliance check is done against the firmware that is loaded on the device against the Cisco Vision Dynamic Signage Director auto-registration settings. If the firmware versions do not match, the Series 2 and Series 3 DMP initiates a firmware upgrade **automatically**.

To upload the Series 2 and Series 3 firmware:

- From the device where you downloaded the firmware, log into Cisco Vision Dynamic Signage Director as an Administrator.
- 2. Go to Tools > Management Dashboard > DMP and TV Controls > DMP Install > Firmware Upload
- 3. Select the Series 2 Parameters or the Series 3 Parameters tab according to the DMP model that you are provisioning and click the upload icon (Figure 1 on page 39).

Figure 1 DMP Firmware Upload



4. Navigate to the firmware image file and click **OK**.

An upload status string appears at the bottom of the screen that indicates when the firmware upload completes.

Configuring the DMPs for Auto-Registration

Before you provision the firmware to the media player, upload it to Cisco Vision Dynamic Signage Director and then configure the auto-registration settings.

To configure the Series 2 and Series 3 DMPs for auto-registration:

- 1. Go to Tools > Management Dashboard > Dynamic Signage Director Configuration > System Configuration > Auto Registration Settings > Provision DMP.
- 2. Do one of the following:
 - To provision an SV-4K or DMP-2K, click Series 2 DMP.
 - To provision a CV-HD or CV-UHD, click Series 3 DMP.
- 3. In the Configuration Property panel, find and configure the firmware properties.
 - Figure 2 on page 41 shows the auto-registration configuration and Table 1 on page 41 identifies the required firmware properties for the CV-UHD and CV-HD in Release 6.1.
 - Figure 3 on page 42 shows the auto-registration configuration and Table 2 on page 42 identifies the required firmware properties for the SV-4K and DMP-2K in Release 6.1.

Note: The CV-HD and CV-UHD media players require a different *base* firmware than the SV-4K and DMP-2K media players.

- Firmware image to use—Select from dropdown box.
- init.version—Type the version.
- Base firmware image to use–Select from dropdown box.
- Base.version—Type the version.

Note: If you have just uploaded the firmware image, you need to click the Refresh icon next to the drop-down box for the new file to appear.

Figure 2 Firmware Image and Version Properties Required to Provision the CV-UHD and CV-HD

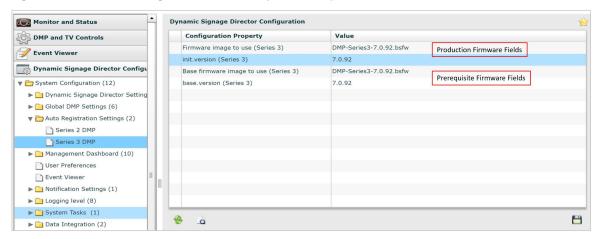


Table 1 Required Firmware Properties for the CV-UHD and CV-HD in Release 6.1

Release Number	Firmware Property	Value for Release
6.1.0-363	Firmware image to use (CV-UHD, CV-HD)	DMP-Series3-7.0.92.bsfw
	init.version (CV-UHD, CV-HD)	7.0.92
6.1.0-363	Base firmware image to use (CV-UHD, CV-HD)	DMP-Series3-7.0.92.bsfw
	base.version (CV-UHD, CV-HD)	7.0.92

Figure 3 Firmware Image and Version Properties Required to Provision the SV-4K and DMP-2K

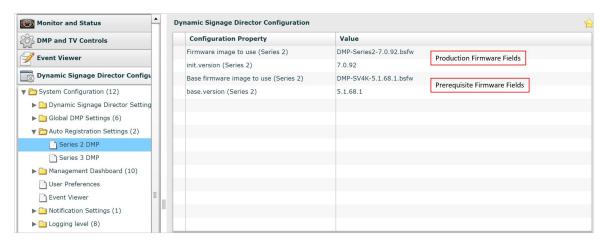


Table 2 Required Firmware Properties for the SV-4K and DMP-2K in Release 6.1

Release Number	Firmware Property	Value for Release
6.1.0-363	Firmware image to use (SV-4K, DMP-2K)	DMP-Series 2-7.0.92.bsfw
	init.version (SV-4K, DMP-2K)	7.0.92
6.1.0-363	Base firmware image to use (SV-4K, DMP-2K)	If a prerequisite firmware is not already installed, upload and select the 5.1.68.1 firmware file.
		Note: Contact your Cisco Systems representative for information about how to obtain the 5.1.68.1 firmware.
	base.version (SV-4K, DMP-2K)	5.1.68.1

- 4. Save the changes.
- 5. Power on or reboot the DMP.
- **6.** Verify the startup sequence. For more information on the startup sequence, see the Cisco Vision Deployment Guide for Series 2 and Series 3 Media Players: Dynamic Signage Director.

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Appendix A: Post-Upgrade Checklist

First Published: 2018-07-10

Use the following checklist to verify operation of the system after you upgrade your software on a Cisco Vision Dynamic Signage Director server.

List Item	Checkoff
Complete any specific verification steps documented for your particular upgrade.	
2. Do the following in your browser.	
a. Clear the browser cache.	
b. Close all browser windows and wait for 10 seconds before restarting.	
Caution: Notify all Cisco Vision Dynamic Signage Director users about the mandatory requirement to clear their browser cache and to shutdown/restart the browser software before accessing the latest Cisco Vision Dynamic Signage Director software.	
Verify that the Control Panel shows the Cisco Vision Dynamic Signage Director version and build number that you installed.	
4. If you are using phone control, verify that the phones work.	
5. If using IP phones for local TV control, verify you can successfully change channels.	
6. Verify that channel names and favorites are properly set.	
If using suite commerce integration, use the IP phone to verify you can successfully place an order.	
8. Verify that all devices are properly in the nonevent_group.	
Go to the Services Alert window in the Management Dashboard and make sure that all relevant services are green.	
Note: If necessary, click the refresh button to re-poll all services for status. If needed, disable services that are not part of your installation.	
10. Verify that the Series 2 and Series 3 devices have been rebooted and are running the latest system runtime version.	
Note: A manual reboot is required if a DMP firmware upgrade was not required for your release.	
11. Verify that all DMPs and TVs in the Management Dashboard are green.	
12. Start an existing event script and validate that screens display the expected content.	

List Item	Checkoff
13. Stop the event script and validate that screens power off.	
14. Make a minor edit to the event script and make sure it saves.	
15. Verify that you can push a new video file in the Content Management System (CMS) to the DMPs.	
16. If using dynamic menu boards, make a change to a menu item and verify that the change is reflected on the menu board.	
17. If using external content integration, be sure to re-enable your data sources in the Control Panel and restart the External Content Integration application from the Management Dashboard.	
 18. (As needed for sites that schedule the CMSRestartTask) Delete the CMSRestartTask from the Scheduled Tasks area of the Management Dashboard. Note: In Cisco StadiumVision Director Release 4.1 and later releases, the CMS is automatically restarted after a backup runs. 	
19. Perform a server backup for the upgrade configuration.	
20. After satisfying your site's testing and event requirements, fail back to the primary server and upgrade it to the same version of software that you validated on your secondary server. For more information, see "Configuring Failover Between Redundant Cisco Vision Dynamic Signage Director Servers" module in Cisco Vision Administration Guide:	
Dynamic Signage Director. 21. After you perform failback, reconfigure your backup and restore environment using	
the Text Utility Interface (TUI).	-

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Appendix B: Port Reference

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The following tables identify the default ports used by Cisco Vision Dynamic Signage Director:

- Cisco Vision Dynamic Signage Director Ports, page 45
- Media Player Ports, page 47

Cisco Vision Dynamic Signage Director Ports

The Cisco Vision Dynamic Signage Director ports are divided into tables for input and output ports.

Cisco Vision Dynamic Signage Director Input Ports

Table 1 on page 45 lists the input ports used by all Cisco Vision Dynamic Signage Director servers.

Table 1 Cisco Vision Dynamic Signage Director Input Ports

Originator	Protocol	Port	Target Application	Usage
Laptop	TCP	22	SSH	Remote login
Laptop / DMP	TCP	80	Apache	Redirect to port 8080
DMP	TCP	8080	Tomcat / Apache	Fetch config/data
Laptop	TCP	8080	Tomcat / Apache	Main web UI
Laptop	TCP	9090	Tomcat for Liferay	Liferay web UI (Dynamic Menu Board application)

Cisco Vision Dynamic Signage Director Ports

Table 2 on page 46 lists the additional input ports used by Cisco Vision Dynamic Signage Director server instances only during troubleshooting access from a PC.

 Table 2
 Cisco Vision Dynamic Signage Director Input Ports

Originator	Protocol	Port	Target Application	Usage
Laptop	TCP	7041	Java	JMX management interface for control server instance
Laptop	TCP	7042	Java	JMX management interface for config server instance
Laptop	TCP	7043	Java	JMX management interface for monitor server instance
Laptop	TCP	7045	Java	JMX management interface for CMS server instance
Laptop	ТСР	7050	Java	JMX management interface for local control
External NTP server	UDP	123	NTP	Time synchronization (Dynamic Signage Director as NTP client)
DMP	UDP	514	Syslog	Proof of play, Alerts

Cisco Vision Dynamic Signage Director Output Ports

Table 3 Cisco Vision Dynamic Signage Director Output Ports

Originator	Protocol	Port	Target Application	Usage
Dynamic Signage Director	FTP	21	FTP server	Fetching integration broker data over FTP Playlist integration
Dynamic Signage Director	ТСР	22	ssh	DMP troubleshooting
Dynamic Signage Director	TCP	80	httpd	Redirect to 443
Dynamic Signage Director	UDP	123	NTP server	As request to NTP server, and as response to DMPs.
Dynamic Signage Director	TCP	80 / 443		Fetching integration broker data Fetching legacy ticker data
Dynamic Signage Director	ТСР	8000	autorun.brs	DMP control port (http)

Table 3 Cisco Vision Dynamic Signage Director Output Ports (continued)

Originator	Protocol	Port	Target Application	Usage
Dynamic Signage Director	TCP	8089	tomcat	Configuration update for multicast rebroadcaster
Dynamic Signage Director	UDP	varies (default:50001)	DMP runtime	Multicast commands (default is 239.192.0.254:50001)
Dynamic Signage Director	UDP	varies (default:50080 -50099)	DMP runtime	Multicast commands when per-script multicast is enabled

Media Player Ports

The DMP ports are divided into tables for input and output ports:

- Common Media Player Input Ports, page 47
- Input Ports, page 48
- Common Media Player Output Ports, page 48
- Output Ports, page 49

Common Media Player Input Ports

Table 4 on page 47 lists the input ports used by all media player models.

Table 4 Common Media Player Input Ports

Originator	Protoco I	Port	Target Application	Usage
Dynamic Signage Director	UDP	varies (default: 50001)	DMP runtime	Multicast commands (default is 239.192.0.254:50001)
Dynamic Signage Director	UDP	varies (default: 50080-50099)	DMP runtime	Multicast commands when per-script multicast is enabled
Headend	UDP	varies	Sigma chipset	Multicast video
NTP server	UDP	123	NTP	Time sync response

Input Ports

Table 5 on page 48 lists the input ports only used by the media player.

Table 5 Input Ports

Originator	Protoco I	Port	Target Application	Usage
Laptop	TCP	22	SSH	SSH diagnostic port
Laptop	TCP	80	DMP diagnostic web server (dws)	-
Laptop	TCP	2099	DMP javascript inspector (for debugging)	_
Dynamic Signage Director	TCP	8000	DMP control and debugging web server	-
Laptop	UDP	161	SNMP service	Listening agent for SNMP management information This port is only open when the SNMP service is enabled in Cisco Vision Dynamic Signage Director
DMP	UDP	319, 320	PTP	Event and general messages for time sync (DMP)
DMP	UDP	50001, 50002	DMP sync manager port	_

Common Media Player Output Ports

Table 6 on page 48 lists the output ports used by all media player models.

 Table 6
 Common Media Player Output Ports

Originator	Protocol	Port	Target Application	Usage
Dynamic Signage Director	TCP	8080	httpd	Fetching of DMP config, autoprovisioning, and related
DMP	TCP	80	httpd	External content URL.
DMP	TCP	8888	java (Mule)	Fetching preview (data pull requests) from Integration Broker
DMP	TCP	9090	Tomcat for Liferay	Dynamic Menu Board application interface
DMP	TCP	33333	java (Mule)	Fetching data integration images from Integration Broker
Dynamic Signage Director	UDP	123	NTP	Time sync request
DMP 43	UDP	514	syslog	Proof of play, Alerts

Output Ports

Table 7 on page 49 lists the output ports used by the Series 2 media players.

Table 7 SV-4K and DMP-2K Output Ports

Originator	Protocol	Port	Target Application	Usage
Laptop	UDP	161	SNMP service	This port is only open when the SNMP service is enabled in Cisco Vision Dynamic Signage Director
DMP	UDP	319, 320	PTP	Event and general messages for time sync
DMP	UDP	50001, 50002	DMP sync manager port	For sync master

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Appendix C: CIMC Configuration and Firmware Upgrade Guidelines on the Cisco UCS C220 Server

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This document provides guidelines for configuring the Cisco Integrated Management Controller (CIMC) interface and performing the initial configuration. It also contains upgrading the CIMC/BIOS firmware on the Cisco UCS C220 servers for Cisco Vision Dynamic Signage Director information.

Note: Use the information in this appendix only **as a guide** to the tasks that you need to perform for CIMC configuration or upgrade. Follow the procedures in the referenced Cisco UCS documents.

This section includes the following topics:

- CIMC Initial Configuration, page 51 (required)
- CIMC Firmware Upgrade Guidelines, page 53 (as required)

CIMC Initial Configuration

This section includes the following topics:

- Prerequisites, page 51
- CIMC Initial Configuration Summary, page 52

Prerequisites

Be sure that the following requirements are met before you do the CIMC initial configuration:

- You have a monitor, keyboard, and mouse that you can connect to the server.
- You have the following information for configuring the internal CIMC interface:
 - You have an additional IP address for static configuration.

Note: This is a different IP address than the IP address that you configure for the eth0 network interface on the Cisco Vision Dynamic Signage Director server.

- You have the VLAN ID if the server will be installed on a network VLAN.
- You are prepared to change the default CIMC login password.

CIMC Initial Configuration

- You have a laptop with access to the Cisco Vision network.
- Your computer meets the minimum browser and Flash player requirements for the Cisco Vision Dynamic Signage Director server and also has Java 1.6 or later installed.

See the release notes for your Cisco Vision Dynamic Signage Director product and release at:

http://www.cisco.com/c/en/us/support/video/stadiumvision/products-release-notes-list.html

- You have a copy of or access to the following documents on Cisco.com:
 - Cisco UCS C220 Server Installation and Service Guide

Familiarize yourself with the "Initial Server Setup" topic of the "Installing the Server" chapter.

- Cisco UCS C-Series Servers Integrated Management Controller GUI Configuration Guide, Release 1.4

(or the version that corresponds to your firmware release found at: http://www.cisco.com/en/US/products/ps10739/products_installation_and_configuration_guides_list.html.)

Familiarize yourself with the "Overview" chapter, and the "Managing the Server Boot Order" section of the "Managing the Server" chapter.

CIMC Initial Configuration Summary

This section provides an overview of the basic tasks to be completed when performing the initial CIMC configuration in standalone mode for a Cisco Vision Dynamic Signage Director server after you have unpacked and inspected it and prepared it for installation.

To perform the CIMC initial configuration, complete the following tasks:

	Description
	Configuring the CIMC Interface
	Note: The instructions for configuring the CIMC interface are found in the "Initial Server Setup" topic of the "Installing the Server" chapter in the Cisco UCS C220 Server Installation and Service Guide.
1.	During bootup, press F8 when prompted to open the BIOS CIMC Configuration Utility.
2.	Configure the CIMC interface with the following settings:
	■ DHCP—Disabled. Change this option to enter a static IP address.
	■ CIMC IP—IPv4 address for your CIMC interface, with corresponding subnet mask.
	■ VLAN-Dependent on client network.
	Change the CIMC password. The default credential is admin and password.
3.	Press F10 to save your configuration and reboot the server.
	Configuring the NIC Properties
	Note: Information about configuring the NIC properties is found in the "Initial Server Setup" topic of the "Installing the Server" chapter in the Cisco UCS C220 Server Installation and Service Guide.
4.	From a laptop with access to the Cisco Vision network, use a browser and type the IP address that you configured for the CIMC interface to connect to the CIMC console.
5.	Log into the CIMC console with username admin and the password that you configured in Step 2.
6.	From the Admin tab, click Network , and go to the Network Settings page.
	In the NIC Properties box, configure the following settings and save your changes:
	■ NIC mode—Dedicated
	■ NIC Redundancy—None
	Configuring the Server Boot Order
	Note: Find the instructions for configuring the server boot order in the "Managing the Server Boot Order" section of the "Managing the Server" chapter of the Cisco UCS C-Series Servers Integrated Management Controller GUI Configuration Guide, Release 1.4
7.	From the Server tab, click BIOS.
8.	Configure the following boot order and save your changes:
	■ Virtual CD/DVD
	■ HDD

CIMC Firmware Upgrade Guidelines

This section includes the following topics:

- Before You Begin, page 54
- Prerequisites, page 54
- CIMC/BIOS Firmware Upgrade Summary, page 55

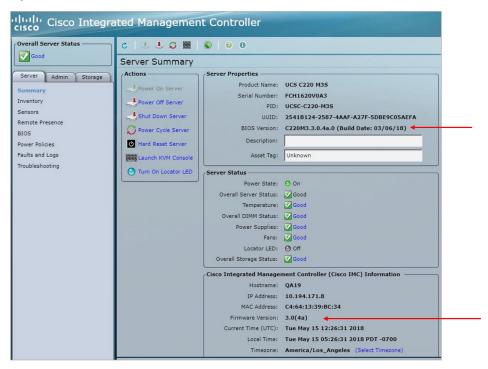
Before You Begin

See the release notes for your Cisco Vision Dynamic Signage Director product and release at:

http://www.cisco.com/en/US/products/ps11274/prod_release_notes_list.html

- Find the minimum CIMC/BIOS versions tested for your Cisco Vision Dynamic Signage Director platform server.
- From your Cisco Vision Dynamic Signage Director platform server, verify the CIMC and BIOS firmware versions in the CIMC console (Figure 1 on page 54).

Figure 1 Firmware Verification From the CIMC Console



Note: No upgrade should be needed if your server firmware is at the minimum tested version (or later) for the Cisco Vision Dynamic Signage Director release that you are running.

Prerequisites

Be sure that the following requirements are met before you perform a CIMC/BIOS firmware upgrade:

- You have a copy of or access to the following documents on Cisco.com:
 - Release Notes for Cisco UCS C-Series Software, Release 1.4(6)

(or the version that corresponds to your firmware release found at: http://www.cisco.com/en/US/products/ps10739/prod_release_notes_list.html)

Cisco Host Upgrade Utility Release 1.4(6) Quick Start Guide

(or the version that corresponds to your firmware release found at: http://www.cisco.com/c/en/us/support/servers-unified-computing/ucs-c-series-rack-servers/products-user-guide-list.html)

Familiarize yourself with all of the requirements in these documents to perform your CIMC/BIOS firmware upgrade.

You have access to Cisco.com to download the firmware ISO file.

CIMC/BIOS Firmware Upgrade Summary

Caution: Be sure to follow the requirements in the release notes and the Host Upgrade Utility (HUU) guide for your firmware, including upgrading both the CIMC and BIOS at the same time and from the HUU ISO file.

To perform the CIMC/BIOS firmware upgrade, complete the following tasks:

	Description
1.	Using the release notes for the firmware version that you need to install, find the name of the ISO file that applies to the Cisco UCS C220 server for that firmware.
	The release 1.4(x) firmware HUU ISO files are platform-specific.
2.	Follow the instructions in the Host Upgrade Utility guide:
	The Cisco UCS C220 server does not have a CD/DVD drive.
	Go to Cisco.com and download the HUU ISO file.
	Follow the instructions to load the ISO that you downloaded and upgrade both the CIMC and BIOS firmware together.