

Server Platform Migration Guide for Cisco Digital Media Manager

First Published: April 26, 2012 Last Revised: August 30, 2012



STOP!

Read this guide carefully before you migrate your Cisco Digital Media Manager (Cisco DMM) server instance from one appliance model to another. This guide contains important information that can help you to avoid potentially serious problems during a migration.

Disregard this guide ENTIRELY if you have Cisco Show and Share.



We prepared this guide with specific expectations of you.

- You have direct physical access to Cisco DMS appliances for which you also have administrator privileges.
- You know how to configure and upgrade Cisco DMS software, including DMP endpoint firmware.
- You know how to back up and restore a Cisco DMS server.
- You are familiar enough with DMM software and the AAI console that you can recognize and verify their normal operation.
- You have set aside AT LEAST 4 UNINTERRUPTED HOURS to complete all procedures in this guide. Make sure that you have ample time in your maintenance window to complete the migration. During a migration, DMM is not available.

This guide explains how to migrate your Cisco DMM configuration settings and assets from a discontinued server model to a current model. Server platform migration makes possible your use of new and improved features that discontinued models cannot support. Your Cisco DMM server hostname and IP address are maintained after the migration.



We support platform migration from any of two discontinued models to a factory-new model that you choose. Your old appliance is the *source* of what you migrate, while your new appliance is the *target*.

Migrate from one of these d	iscontinued source models	To one of these target mode	s
MCS 7835-H1	MCS 7835-H2	MCS 7835-H3	UCS 210-M2

<u>}</u> Tip

Although an MCS 7835-H3 appliance can be your target server, we strongly recommend that you use a UCS 210-M2 appliance instead. Cisco UCS appliances have replaced Cisco MCS appliances in our product portfolio.

If you plan to migrate but do not happen have an MCS 7835-H3 appliance already at hand, you can order a UCS 210-M2 appliance for migration (order **DMMC210-K9=**). See the "Procure a New Server and Move It On-site" section on page 5.

Contents

- Caveats, page 2
- Concepts, page 3
- Procedures, page 4
- Reference, page 20

Caveats

• Known Problems, page 2

Known Problems

Table 1 describes the known problems with Cisco DMM server platform migration.

 Table 1
 Server Migration Defects

Identifier	Description
CSCtv15597	In Cisco DMM 5.2.2-MIG, the user interface is sometimes wrong regarding DMM appliance disk space capacity and utilization. This temporary problem occurs after you migrate configuration settings and media assets (content) from a MCS-7835-H1 server to a UCS210-M2 server.
	Solution Complete all migration procedures. After you do so, these errors stop.

I

Concepts

• Important Notes About This Guide, page 3

Important Notes About This Guide

- This Guide Does Not Describe Migration from MCS 7835-H3 to UCS 210-M2, page 3
- This Guide Does Not Describe Cisco Show and Share Migration, page 3
- This Guide Does Not Describe Upgrading to Cisco DMS 5.3, page 3
- This Guide Does Not Describe Hot-Swap Migration, page 3

This Guide Does Not Describe Migration from MCS 7835-H3 to UCS 210-M2

No special procedures or software are required in this case, as these models can already restore from one another's backups. Simply:

- 1. Use AAI on your MCS 7835-H3 to back up its DMS 5.2.3 or 5.3.x configuration and assets.
- 2. Shut off and disconnect the retired MCS server.
- **3.** Use AAI on your new UCS 210-M2 to match the retired server's date and time settings and network configuration—including its hostname, IP address, gateway, and DNS server settings.
- **4.** Use AAI on your new UCS server to restore the configuration and assets that you backed up from your retired MCS server.

To learn more, see *Appliance Administration Guide for Cisco Digital Media Suite Appliances 5.3.x* on Cisco.com.

This Guide Does Not Describe Cisco Show and Share Migration

Caution

To migrate Cisco Show and Share from a discontinued server model to a current model, see the *Server Platform Migration Guide for Cisco Show and Share and Cisco Digital Media Manager* at http://www.cisco.com/en/US/customer/products/ps6682/prod_installation_guides_list.html.

This Guide Does Not Describe Upgrading to Cisco DMS 5.3

Instead, see Upgrade Guide for Cisco Digital Media Suite 5.3 on Cisco.com.



Cisco Show and Share 5.3 is a paid upgrade.

This Guide Does Not Describe Hot-Swap Migration

We have not tested and cannot support any migration scenario in which the only downtime is the interval between moving an Ethernet connection from your old (source) appliance to your new (target) appliance in their production network.

Procedures

- Make Sure That Your Old Server Runs Cisco DMS 5.2.2 or 5.2.2.1, page 4
- Procure a New Server and Move It On-site, page 5
- Obtain Licenses for the New Server, page 6
- Obtain the .ISO Files for Migration, page 7
- Burn Discs from the .ISO Files, page 8
- Run Disc 1 on Your Old Server, page 8
- Back Up Your Old Server, page 9
- Power Off and Disconnect Your Old Server, page 10
- Prepare Your New Server for Migration, page 10
- Run Disc 2 on Your New Server, page 11
- Migrate Old Settings and Content to Your New Server, page 12
- Install and Activate Licenses on Your New Server, page 13
- Run Disc 3 on the New Server, page 14
- Upgrade Your DMPs to Firmware Release 5.2.3, page 15

Make Sure That Your Old Server Runs Cisco DMS 5.2.2 or 5.2.2.1

If your source appliance runs any Cisco DMS release before 5.2.2 or 5.2.2.1, you must upgrade it before you can migrate from it.



- Cisco Digital Media Suite Release 5.2.2.1 Release Notes and Upgrade Guide http://www.cisco.com/en/US/docs/video/digital_media_systems/5_x/5_2/dms/upgrade/guide/5221 UpgradeGuide.html
- **Step 2** Stop. You have completed this procedure.

Procure a New Server and Move It On-site

Although an MCS 7835-H3 appliance can be your target server, we strongly recommend that you use a UCS 210-M2 appliance instead. Cisco UCS appliances have replaced Cisco MCS appliances in our product portfolio. Therefore, you can no longer order an MCS 7835-H3 appliance from Cisco. To migrate when you do not happen have an MCS 7835-H3 appliance already at hand, you can order a UCS 210-M2 appliance for migration.



You can skip this procedure if you have already procured a new server and moved it on-site.

Procedure

- **Step 1** Log in to your Cisco.com account, go to http://cisco.com/go/ordering, and then order DMMC210-K9=. This is a "bare-metal" server, available only as an orderable spare.
- **Step 2** When you receive your new server, move it to its deployment site.
- **Step 3** Stop. You have completed this procedure.



Keep a record of the appliance serial number. You will need it during migration.

Obtain Licenses for the New Server

Procedure

Step 1 Save a screenshot of the View Licenses page from your old (source) appliance.

- **a**. Log in to DMM as an administrator.
- b. Choose Administration > Licenses > View Licenses.
- c. Capture a screenshot.
 - Windows—Press the Print Screen (or PrtScn) key. A screenshot is saved to your clipboard.

1

• Mac OS X—Press Cmd-Shift-3. A screenshot is saved to disk.

					Licenses
dinerrows I creatively	View Lic	enses		 	
View Licensing					
List of Installed Licenses					
Total of 1 Licenses Installed Serial Number	Date Installed		Features		
Serial Number	Sat Nov 19 22:25:14	License Type Permanent	Features	 Distant - Balancia - Balancia	0.000000
	PST 2011	remanent	er bis i febrieren - veran i febrieren - vera gir bieg i febrieren - Weiger aus - Weiger weigenberg, i febrieren	a - Harris I Marris I Traver ("Tana I Merris Gatala")	Phase researched
Summary	i Lastas I Lastas Mar T T T Sastas I Lastas I T Sastas I Sastas	1975 - 1994 (M			

Step 2 Send an email message to dms-softwarekeys@cisco.com that includes all of these:

- The DMS-Admin screenshot from your old appliance.
- The serial number of your new appliance.
- A statement that you are migrating from a discontinued server model to a new server model.
- **Step 3** After you receive a license key file from Cisco, save a local copy of it.
- **Step 4** Stop. You have completed this procedure.

Obtain the .ISO Files for Migration

You must download three .ISO disc images from Cisco.com. These .ISOs are essential to migration.

Before You Begin

- Configure your browser to allow popups from Cisco.com.
- Configure your browser to trust digitally signed Java applets that originate from *tools.cisco.com*.

Procedure

- **Step 1** Log in to your Cisco.com account.
- **Step 2** Go to http://cisco.com/cisco/software/release.html?mdfid=280171249&flowid=4306& softwareid=282100271&release=5.2.2&relind=AVAILABLE&rellifecycle=&reltype=latest.
 - a. Click Add to cart in the DMS-PATCH-5.2.2-MIG.iso row.
 - **b.** Click Add to cart in the DMM-5.2.2-MIG.iso row.
 - c. Click Add to cart in the DMS-5.2.3.12.iso row.

Note

Does a "Strong Encryption Eligibility" message load in your browser? If so, our record of your Cisco.com account does not contain enough information yet under US law to allow immediate download. In this case, you must apply for eligibility to download strong encryption software images from Cisco.com.

US law requires that you:

- Confirm that your street address is correct and complete in our records.
- Read the conditions (which we show to you) that describe and limit your eligibility to download.
- Complete and submit the provided form.
- Step 3 Click 😫 Download Cart (3 items) in the page header.
- Step 4 Click Download All .
- Step 5 Click Accept License Agreement .

A digitally signed Java applet from *tools.cisco.com* opens a Download Manager window and a dialog box for browsing your local file system.

Step 6 Browse your local file system to choose which folder should receive the download.

Progress bars and related elements in the Download Manager window indicate your file transfer rate and percentage toward completion.

Step 7 Upon completion, use file sizes and MD5 sums to make sure that each downloaded .ISO file is valid.

Disc	Filename	File Size (bytes)	MD5 Sum
1	DMS-PATCH-5.2.2-MIG.iso	649,216	c9111c5be28806edf84152a659e3402b
2	DMM-5.2.2-MIG.iso	1,400,076,288	d1964f919739ba169dbed8956457a05c
3	DMS-5.2.3.12.iso	1,593,634,816	894e805a0d0d0aff61a649200e85f765

Step 8 Stop. You have completed this procedure.

Burn Discs from the .ISO Files

Burn discs from the .ISO files that you downloaded.

- Disc 1 ("DMS-PATCH-5.2.2-MIG") is a CD.
- Discs 2 and 3 are DVDs.



Burn all three discs at the lowest available speed.



See your disc-burning software documentation to learn about creating a disc from an .ISO file.

Run Disc 1 on Your Old Server



We recommend but do not require that you back up your old server before you run Disc 1 on it.

Before You Begin

• In AAI, choose **SHOW_INFO** and make sure that the Latest Patch value *is not already* MIG.

Procedure

- Step 1 Log in to the Appliance Administration Interface (AAI) as admin.
- **Step 2** Choose **APPLIANCE_CONTROL > SOFTWARE_UPDATE**.
- Step 3 Insert Disc 1, DMS-PATCH-5.2.2-MIG, into the source appliance when prompted.
- **Step 4** Follow any prompts to proceed, and then press **Enter**.

Such prompts may reference release 5.2.2 explicitly, even on a server that currently runs release 5.2.2.1. This is trivial and affects nothing. Do not be alarmed.

- Depending on its model, your old server might now eject Disc 1 automatically. But if this does not occur automatically, you can eject Disc 1 manually.
- A system message states that your server was patched successfully.
- Step 5 Log out of AAI.
- Step 6 Log back in to AAI, and then choose SHOW_INFO from the AAI main menu.
- **Step 7** Make sure in the Unique Device Identifier list that the Latest Patch is **MIG**.
- **Step 8** Stop. You have completed this procedure.

Back Up Your Old Server

Note

The duration to complete a backup depends at least on the cumulative size of all content in the backup. And, when your backup is stored on a remote RSYNC, FTP, or SFTP server, network latency might also contribute to duration.

In one test, we backed up approximately 8 GB of content to a remote SFTP server in less than 2 minutes. In another test, we backed up approximately 5 GB of content to a local USB thumb drive in 45 minutes. Your results will differ.

Tin

There is no progress bar in AAI. However, the blinking LED on a USB drive indicates drive activity.

Before You Begin

- If you will back up to a remote server, make sure that:
 - You have read-write permissions for it.
 - Your appliance can communicate with it.
- If you will back up to a local USB drive, make sure that it uses FAT32 formatting.

Procedure

- **Step 1** Log in to the Appliance Administration Interface (AAI) as admin.
- **Step 2** Choose **BACKUP_AND_RESTORE > BACKUP > CONTENT+CONFIG**, and then choose **OK**.
- **Step 3** Choose where to store the backup. There are two options.
 - LOCAL
 - REMOTE When you will use REMOTE

You must further specify **RSYNC**, **FTP**, or **SFTP** as the remote server type. AAI then prompts you for details. As prompted:

- a. Enter the remote server IP address.
- **b.** Enter the username for the remote server.
- c. Enter the password for this username.
- Step 4 Choose BACKUP ONCE (NOW).
- **Step 5** After a message states that the backup is finished, make sure that it finished successfully.

a. Choose **BACKUP_AND_RESTORE > SHOW_BACKUP_LOG**.

- **b.** Press your right arrow key (\rightarrow) to scroll horizontally to the right.
- c. The newest log entry should end with the word "Successful."
- d. Choose EXIT to dismiss the log.
- **Step 6** Stop. You have completed this procedure.

Power Off and Disconnect Your Old Server

You must prevent IP address conflicts between your old appliance and its replacement.

Procedure

Step 1	Log in to the Appliance Administration Interface (AAI) as admin .
Step 2	Choose APPLIANCE_CONTROL, and then press Enter.
Step 3	Choose SHUTDOWN, and then press Enter twice.
Step 4	Disconnect all network cables.
Step 5	Stop. You have completed this procedure.

Prepare Your New Server for Migration

Procedure

- Step 1 Unpack the equipment from its container and verify that all components are present.
- **Step 2** Plug the power cable (or redundant power cables) into the back of the appliance.
- Step 3 Connect an Ethernet cable to you network and to the port on the back of the appliance.

۵, Note

Every UCS 210-M2 appliance, including the "DMM-SVR-C210-K9," has two physical network interfaces. However, you can use only one of these interfaces to connect a DMM-SVR-C210-K9 to a network.



The callout in this figure marks the network interface to use when your target server is a DMM-SVR-C210-K9.

- **Step 4** Connect a monitor to the VGA output on the front of the appliance.
- **Step 5** Connect a standard PS2 keyboard to the PS2 port in the back of the appliance.
- Step 6 Insert Disc 2, DMM-5.2.2-MIG.
- **Step 7** Power **On** the appliance, so that it boots from Disc 2.
- **Step 8** Stop. You have completed this procedure.

Run Disc 2 on Your New Server

Note

This procedure will take at least 1 hour to finish.

Before You Begin

• Complete all steps in the "Prepare Your New Server for Migration" procedure.

Procedure

- **Step 1** After the Disc 2 utility has loaded into memory, allow it to reformat your new server's hard disks and apply the necessary file system to them.
 - This process will overwrite all data on your new server. Complete erasure is correct and required.
 - Your new server will restart automatically and then open the First Boot utility.

Step 2 Press **Enter** to start configuring server settings.

Caution

During configuration, make sure that all values for these attributes are PERFECTLY IDENTICAL across your old and new servers. Otherwise, your configuration settings fail to migrate or your deployments occur at the wrong times.

- IP ADDRESS
- SUBNET MASK
- DEFAULT NETWORK GATEWAY
- PRIMARY DNS SERVER
- SECONDARY DNS SERVER
- TIME
- DATE
- TIMEZONE
- **Step 3** Enable auto-negotiation.

Step 4 Set and confirm the required passwords.

After you confirm the password for your pwadmin user, a message states, "End of First Boot."

Step 5 Wait up to 20 minutes for the new server to apply its new settings.

ρ Tip

If the console screen goes black from inactivity, tap the spacebar.

Step 6 Verify that the installation finished successfully.

a. Choose SHOW_INFO in AAI.

b. Make sure in the Unique Device Identifier area that the Version ID value is **5.2.2-MIG**.

Step 7 Stop. You have completed this procedure.

Migrate Old Settings and Content to Your New Server

The duration to complete a backup depends at least on the cumulative size of all content in the backup. And, when your backup is stored on a remote RSYNC, FTP, or SFTP server, network latency might also contribute to duration.

In one test, we restored approximately 8 GB of content from a remote SFTP server in 15 minutes. In another test, we restored approximately 5 GB of content from a local USB thumb drive in 5 minutes. Your results will differ.



There is no progress bar in AAI. However:

- The blinking LED on a USB drive indicates drive activity.
- The maximum theoretical USB transfer speed is 60 MB/s.
- The smallest possible backup file is 665 KB.
- The largest possible backup file is 50 or 60 GB, depending on your server model.

Before You Begin

- If you back up to a remote server, make sure that you have read-write permissions for it.
- If you back up to a remote server, make sure that your appliance can communicate with it.

Procedure

- **Step 1** Log in to the Appliance Administration Interface (AAI) as admin.
- **Step 2** Choose **BACKUP_AND_RESTORE** > **RESTORE**, and then choose **Yes**.

Step 3 Choose CONTENT+CONFIG, and then choose OK.

Step 4 Choose where the backup is stored. There are two options.

LOCAL When you will restore from a local USB volume on a UCS 210-M2 server

\triangle	
Caution	

First, you must use *CIMC* **on your new UCS server to disable its Virtual CD.** Otherwise, USB mounting errors will prevent the restore operation from starting.

See the "Configuring Virtual Media" topic at http://www.cisco.com/en/US/docs/unified_computing/ucs/c/sw/cli/config/guide /Cisco_CIMC_CLI_Configuration_Guide_chapter5.html.

• REMOTE

When you will restore from a remote server

You must further specify **RSYNC**, **FTP**, or **SFTP** as the remote server type. AAI then prompts you for details. As prompted:

- a. Enter the remote server IP address.
- **b.** Enter the username for the remote server.
- c. Enter the password for this username.

Note

Step 5 After a message states that the restore is finished, make sure that it finished successfully.

a. Choose **BACKUP_AND_RESTORE > SHOW_BACKUP_LOG**.

- **b.** Press your right arrow key (\rightarrow) to scroll horizontally to the right.
- c. The newest log entry should end with the phrase, "Restore Complete."
- d. Choose EXIT to dismiss the log.

Step 6 Stop. You have completed this procedure.

Install and Activate Licenses on Your New Server

Procedure

Γ

Тір	Use the same password that you defined on your old (source) appliance. The password has migrated
Choo	se Administration > Licenses > Install/Upgrade Licenses.
a . C	Click Browse or Choose File, depending on your installed browser.
b. F	and click the license file where you saved it.
c . (Click Open .
d . C	Click Install License.
e . R	Repeat these steps until all of your licenses are installed.
All fe	eatures that you licensed should now be activated.
Verif	y that your feature licenses are active.
a. (Choose Administration > Dashboard .

Verify Normal Operation

Procedure

1	Step through DMM and	d AAI to check if anything is missing, malformed, or misbehaved.
	• Pay close attention	to your playlists, presentations, schedules, and assets.
	• Does DMM show	that your DMPs are reachable?
	• Are your digital si	gns working?
2	Do one of the followin	g.
	• Does everything look OK?	When everything is OK Proceed to the "Run Disc 3 on the New Server" section on page 14.
	• Does something look wrong?	When something is wrong
		Caution STOP IMMEDIATELY. Do not proceed. Open a support case with Cisco TAC (Your digital content and configuration settings ARE NOT at risk.)

Step 3 Stop. You have completed this procedure.

Run Disc 3 on the New Server



This procedure will take at least 30 minutes to finish and might take as long as 1 hour.

<u>}</u> Tip

Upon completion of this procedure, your DMM server will run software release 5.2.3-MIG. To learn about this release, make sure to read the documentation that describes and explains it.

- Release notes—http://tools.cisco.com/squish/71446
- AAI changes—http://tools.cisco.com/squish/8CC81
- High-availability server failover—http://tools.cisco.com/squish/AaDa3
- Single sign-on support—http://tools.cisco.com/squish/a4684
- **Cisco ECDS support**—http://tools.cisco.com/squish/543Dc

Procedure

- Step 1 Insert Disc 3, DMS-5.2.3.12, into your new (target) appliance.
- **Step 2** Log in to AAI as **admin**.
- Step 3 Choose APPLIANCE_CONTROL, and then press Enter.

- **Step 4** Choose **SOFTWARE_UPDATE**, and then press **Enter**.
- Step 5 Choose CD_UPDATE, and then press Enter.
- **Step 6** When prompted to confirm these selections, choose **Yes**.
 - Services stop.
 - Software is staged for installation.
- Step 7 When prompted to choose a user interface language, choose English.



The appliance reboots.

Step 8 After the reboot, choose **Yes** to proceed.

The upgrade process begins. It takes roughly 40 minutes. If you are prompted to type "yes" to bypass a pause, you can ignore the prompt. The upgrade will resume automatically in either case. After the software installation is complete, the system reboots one last time and then runs post-installation tasks. The upgrade is complete when the console login prompt appears.



Although AAI shows that the installed release number is "5.2.3-MIG," DMM shows only "5.2.3."

Step 9

Stop. You have completed this procedure.

Upgrade Your DMPs to Firmware Release 5.2.3

To upgrade your DMPs, complete the following sequence of procedures.

- **1.** Obtain the DMP Firmware, page 15
- 2. Force DMPs From Their 'Initial' State, As Needed, page 16
- 3. Stop All Applications on DMPs, page 17.
- 4. Upgrade the Firmware and Root File System on DMP Endpoints, page 18.

Obtain the DMP Firmware

Procedure

Step 1 Log in to your Cisco.com account.
Step 2 Go to http://cisco.com/cisco/software/navigator.html?mdfid=280936311&flowid=21001.
Step 3 Click your model in the Cisco Digital Media Players list.
Step 4 Click Expand All in the versions tree, and then click 5.2.3.
Step 5 Click Download.

You must have a valid service contract associated to your Cisco.com profile. If you do not have a service contract yet for Cisco DMS, you can get one through:

- Your Cisco account team if you have a direct purchase agreement with Cisco.
- Your Cisco partner.
- A qualified Cisco reseller.

Then, after you have the service contract, you must associate it to your Cisco.com user ID at https://tools.cisco.com/RPF/profile/edit_entitlement.do?Tab=3.

Step 6 Stop. You have completed this procedure.

Force DMPs From Their 'Initial' State, As Needed

A DMP returns to its "initial" state when you reset it to use factory-default settings. In its initial state, a DMP lacks an internal database file that supports centralized management. This procedure shows you how to force a DMP from this initial state.

Complete this procedure if you have reapplied our factory-default settings to one or more of your DMPs. Otherwise, if you have not restored DMP factory defaults, you can skip this procedure.

Procedure

- **Step 1** Choose **Digital Signage** from the global navigation or click **Digital Signage** on the dashboard.
- Step 2 Choose Digital Media Players > Advanced Tasks.
- **Step 3** Create the advanced task.
 - a. Click System Tasks.
 - b. Click Add New Application.
- **Step 4** Define and save the new system task.
 - a. Enter a unique name in the Name field. For example, Clear DMP Initial State.
 - **b.** Enter a short description in the Description field. For example, *Generate file to support centralized management*.
 - c. Choose Set from the Request Type list.
 - d. Enter mib.save=1 in the Request field.
 - e. Click Submit.
- **Step 5** Schedule an event to send the task to DMPs that are in the initial state.
 - a. Choose Schedules > Play Now.
 - b. Choose Advanced Tasks from the Select an Event Type list, and then click Select Advanced Task
 - c. Choose System Tasks> Clear DMP Initial State in the Select Event window, and then click OK.
 - d. Click the name of a group in the DMP Groups area to see a list of its member DMPs.

- e. Click the name of each DMP in the list that should receive the deployment.
- f. Click Submit, and then click OK when the Success message displays.

Step 6 Stop. You have completed this procedure.

Stop All Applications on DMPs

Before you upgrade DMPs, you must stop all applications by using the DMP Startup URL advanced task.



Use the DMP Startup URL advanced task to clear the DMP startup URL and restart the DMP. Do not use the Stop All Applications system task.

Procedure

- Step 1 Choose Digital Signage from the global navigation or click Digital Signage on the dashboard.
- **Step 2** Choose **Digital Media Players > Advanced Tasks**.
- **Step 3** Create the advanced task.
 - a. Click DMP Startup URL.
 - b. Click Add New Application.
 - c. Enter Startup URL Empty & Reboot in the Name and Description fields.
 - d. Leave empty the Video URL and Browser URL fields.
 - e. Check the Reboot Necessary check box.
 - f. Click Submit.
- **Step 4** Schedule an event to send the task to the DMP.
 - a. Choose Schedules > Play Now.
 - b. Choose Advanced Tasks from the Select an Event Type list, and then click Select Advanced Task.
 - c. Choose DMP Startup URL > Startup URL Empty & Reboot in the Select Event window, and then click OK.
 - d. Click the name of a group in the DMP Groups area to see a list of its member DMPs.
 - e. Click the name of each DMP in the list that should receive the deployment.
 - f. Click Submit, and then click OK when the Success message displays.
- **Step 5** Stop. You have completed this procedure.

Upgrade the Firmware and Root File System on DMP Endpoints



In most cases, it takes approximately 30 minutes to upgrade the firmware and root file system on a DMP.

However, while the upgrade is in progress on a DMP 4400G, its behavior might be confusing.

1. A DMP 4400G shows these three messages in this order:

- 💕 Burn: NN%
- Early Verify: NN%
- 🚅 Internal Upgrade Completed.

(Where NN is a percentage value that climbs from 1 to 99.)

- 2. Then, it restarts after approximately 1 minute.
- 3. Next, it shows the same three messages as before, in exactly the same sequence.
- 4. Finally, it restarts a second time after approximately 29 minutes.

This occurs because the 4400G must install a small amount of data and restart before it can accept its new firmware and file system.

Before You Begin

- If you use ACNS, we recommend that you send DMP firmware files to your ACNS servers and deploy the upgrades as a future event—not an immediate event.
- If you deploy the upgrade directly to your DMPs, we recommend that you upgrade just one DMP initially or upgrade just a small group of DMPs and test the result before you send the firmware to multiple DMPs.
- We recommend that you do not upgrade any more than 20 DMPs at a time and that all upgrades occur outside normal business hours for your organization.



Warning

Make sure that the DMPs do not lose power while they are burning their firmware during an upgrade. If they lose power during this critical period, they will be severely damaged.

Procedure

- **Step 1** Choose **Digital Signage** from the global navigation or click **Digital Signage** on the dashboard.
- **Step 2** Add the firmware image to your media library as an asset.
 - a. Choose Media Library, and then click Add Media Asset.
 - b. For the source, click Local File.
 - c. Click **Browse**, choose the firmware image from the software upgrade disc or your local file system, and then click **Open**.
 - d. Enter a meaningful description in the Title field.
 - e. Uncheck the Is Kernel Upgrade? check box.
 - f. Verify that the file type is Firmware, and then click Save.

Do not click any button or move away from this page in your browser until the upload is finished. After it is finished, the page refreshes automatically. You should see that a description of the firmware file has been added in the table that the page shows.



You must upload the firmware to the Cisco DMM. Do not link to the firmware using a URL

(Optional) To verify that the upload succeeded, compare its file size in the Size column to the size of

h. Click Publish All to publish the schedule.

Step 6 Stop. You have completed this procedure.

<u>P</u> Tip

Note

the source file.

Step 3

To check the status of a DMP group upgrade, deploy the Upgrade Status system task to the group.

Reference

- FAQs, page 20
- Open Source Used in Cisco Digital Media Manager Server Migration Tool 5.2.2.x, page 20
- Learn More About..., page 36

FAQs

- **Q.** Does migration include any workaround or fix for CSCty22538?
- **A.** Yes. The hotfix for CSCty22538 is included, helping you to manage DMPs with expired digital certificates.
- **Q.** Does migration preserve my Cisco DMM server hostname and IP address?
- A. Yes.
- **Q.** Does the migration utility cost money?
- **A.** No. It is available at no charge.

Open Source Used in Cisco Digital Media Manager Server Migration Tool 5.2.2.x

This document contains the licenses and notices for open source software used in this product. With respect to the free/open source software listed in this document, if you have any questions or wish to receive a copy of the source code to which you are entitled under the applicable free/open source license(s) (such as the GNU Lesser/General Public License), please contact us at **external-opensource-requests@cisco.com**.

In your requests please include the following reference number: 78EE117C99-20493399

Licenses

- csync2 1.33, page 20
- DRBD 8.3.2, page 24
- FFmpeg .5, page 28
- Postgresql 8.1.11 :1.el5_1.1, page 32
- Spring Framework 3.0.0, page 32

csync2 1.33

GNU GENERAL PUBLIC LICENSE Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

I

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License. **9.** The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

DRBD 8.3.2

GNU GENERAL PUBLIC LICENSE Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc. 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too. When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation. 10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

FFmpeg .5

GNU GENERAL PUBLIC LICENSE Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

Postgresql 8.1.11 :1.el5_1.1

PostgreSQL Database Management System

(formerly known as Postgres, then as Postgres95)

Portions Copyright (c) 1996-2005, PostgreSQL Global Development Group Portions Copyright (c) 1994, The Regents of the University of California

Permission to use, copy, modify, and distribute this software and its documentation for any purpose, without fee, and without a written agreement is hereby granted, provided that the above copyright notice and this paragraph and the following two paragraphs appear in all copies.

IN NO EVENT SHALL THE UNIVERSITY OF CALIFORNIA BE LIABLE TO ANY PARTY FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, ARISING OUT OF THE USE OF THIS SOFTWARE AND ITS DOCUMENTATION, EVEN IF THE UNIVERSITY OF CALIFORNIA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

THE UNIVERSITY OF CALIFORNIA SPECIFICALLY DISCLAIMS ANY WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE SOFTWARE PROVIDED HEREUNDER IS ON AN "AS IS" BASIS, AND THE UNIVERSITY OF CALIFORNIA HAS NO OBLIGATIONS TO PROVIDE MAINTENANCE, SUPPORT, UPDATES, ENHANCEMENTS, OR MODIFICATIONS.

Spring Framework 3.0.0

Apache License Version 2.0, January 2004 http://www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"**Source**" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"**Object**" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"**Contributor**" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

 $({\bf a})$ You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree

to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

```
== NOTICE file corresponding to section 4 d of the Apache License, ==
== Version 2.0, for the Spring Web Flow distribution. ==
```

This product includes software developed by the Apache Software Foundation (http://www.apache.org).

The end-user documentation included with a redistribution, if any, must include the following acknowledgement:

"This product includes software developed by the Spring Framework Project (http://www.springframework.org)."

Alternately, this acknowledgement may appear in the software itself, if and wherever such third-party acknowledgements normally appear.

The names "Spring", "Spring Framework", and "Spring Web Flow" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact rod.johnson@interface21.com or juergen.hoeller@interface21.com.

Learn More About...

To Learn About	Go To
Cisco DMS Components	
Cisco DMS products and technologies	http://cisco.com/go/dms
Cisco DMS technical documentation	http://cisco.com/go/dms/docroadmap
Cisco DMS APIs	http://developer.cisco.com/dms/
Cisco DMS MIB (SNMP)	http://cisco.com/go/dms/mib

Cisco Academy of Digital Signagehttp://cisco.com/go/dms/adsCisco Digital Media Creative Serviceshttp://cisco.com/go/dmcs

Cisco Connected Sports

Cisco Stadium vision http://cisco.com/go/sports	Cisco StadiumVision	http://cisco.com/go/sports
---	---------------------	----------------------------

Cisco

Service contracts	http://cisco.com/go/cscc
Product upgrades	http://tools.cisco.com/gct/Upgrade/jsp/productUpgrade.jsp
Standard warranties	http://cisco.com/go/warranty
Technical support	http://cisco.com/go/support
Technical documentation	http://cisco.com/go/techdocs
Product security	http://cisco.com/go/psirt
Sales	http://cisco.com/go/ordering

Obtain Documentation or Submit a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at: http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2012 Cisco Systems, Inc. All rights reserved.