



## QUICK START



# Quick Start Guide for Cisco Digital Media Player 4400G

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**Revised: January 23, 2009**

**78-18567-03**

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## Concepts

**Cisco Digital Media System** (Cisco DMS) is a family of products and technologies, including the ones that this guide describes. A **Digital Media Player** (DMP) is a compact, solid state, addressable network device that delivers digital signage content and enterprise TV content to a **DMP display**—which is an **LCD Professional Series display** or any other directly attached television screen, monitor, or projector (analog or digital, standard-definition or high-definition) that shows media to an audience. You can enclose your DMP inside a **protective case** that discourages tampering and prevents theft. The protective case is sold separately. **Digital Media Player Device Manager** (DMPDM) is a web-based graphical user interface to configure one DMP during its initial setup, to manage one DMP in isolation, and to deliver your media to one DMP display. DMPDM is served from the DMP that it manages. System administrators, content managers, and graphic designers use a **Digital Media Manager** (DMM) software module called **DMM-DSM** to centrally manage their network of DMP devices, organize and bind assets together for signage, design layouts, and deliver media to DMP displays. Features of the separately licensed **DMM-ETV** software module help you to deliver VoDs and live television broadcasts over IP networks, configure an on-screen electronic program guide (EPG), manage subscriptions to EPG data provider services, and program the **remote control** for DMPs, which is sold separately.

## Learn More

To learn more about DMS products, related technologies, and Cisco in general:

<b>Description</b>	<b>Go To</b>
DMS overview	<a href="http://www.cisco.com/go/dms">http://www.cisco.com/go/dms</a>
User documentation for Cisco DMS products	<a href="http://www.cisco.com/en/US/products/p_s6681/products_documentation_roadmaps_list.html">http://www.cisco.com/en/US/products/p_s6681/products_documentation_roadmaps_list.html</a>
FAQs and troubleshooting	<a href="http://www.cisco.com/en/US/products/p_s6681/prod_troubleshooting_guides_list.html">http://www.cisco.com/en/US/products/p_s6681/prod_troubleshooting_guides_list.html</a>
Cisco Academy of Digital Signage	<a href="http://www.cisco.com/go/dms/ads">http://www.cisco.com/go/dms/ads</a>
My Tech Support (registration required)	<a href="http://www.cisco.com/en/US/support/tsd_my_tech_support.html">http://www.cisco.com/en/US/support/tsd_my_tech_support.html</a>
Cisco Service Contract Center	<a href="http://www.cisco.com/web/partners/services/resources/csc/index.html">http://www.cisco.com/web/partners/services/resources/csc/index.html</a>
Cisco Security Advisories	<a href="http://www.cisco.com/en/US/products/products_security_advisories_listing.html">http://www.cisco.com/en/US/products/products_security_advisories_listing.html</a>

# 1 Checking the Package Contents

The product package for one DMP 4400G should contain *all* of the following:

- A proof of purchase certificate that contains important legal information, which you should keep.
- This quick start guide and other product documentation.
- One DMP 4400G.
- One AC adapter (12V, 3A).
- One power cord.
- Three signal cables:
  - HDMI (version 1.1).
  - Composite/RCA (video).
  - Audio (3mm jack; red and white RCA plugs).

If anything is missing from the package or appears to be defective, contact the technical support team trained to support DMS products at: <http://cisco.com/en/US/support/>.

## 2 Finding a Suitable Location to Set Up Your DMP

The site where you set up a DMP must be within 6 feet of an AC electrical outlet (socket), with voltage that is standard in your locale, between 100V and 240V. To understand the supported lengths for different video cable types, see the [“Connecting to a DMP Display” section on page 9](#).

### Environmental Tolerance Ranges

The DMP 4400G is intended for indoor use.

Temperature <sup>1</sup>	US Customary Unit		Modern Metric Unit	
	Min.	Max.	Min.	Max.
Operating— long-term or short-term	41°F	104°F	5°C	40°C
Nonoperating or storage	-4°F	140°F	-20°C	60°C
Relative Humidity <sup>2</sup>	Min.		Max.	
Operating, nonoperating, and storage	20 percent		85 percent	

Altitude <sup>3</sup>	US Customary Unit		Modern Metric Unit	
	Min.	Max.	Min.	Max.
Operating, nonoperating, and storage	0 feet	13,780 feet	0 meters	4,200 meters

1. Ambient.
2. Noncondensing; ambient.
3. Above sea level.

### 3 Participating in a DHCP Network

The factory default for a DMP 4400G is to obtain its IP address automatically from a DHCP server. To learn how to configure your DMP to use a static IP address instead—if you will deploy it at a physical location that does not have a DHCP server—see on Cisco.com the version of *User Guide for Cisco Digital Media Player Device Manager* that applies to you:

[http://www.cisco.com/en/US/products/ps7220/products\\_user\\_guide\\_list.html](http://www.cisco.com/en/US/products/ps7220/products_user_guide_list.html).



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**Tip**

If a network security policy restricts DHCP address assignments to network interface cards with known MAC addresses, read the sticker that is affixed to the bottom of your DMP chassis, and then provide your security policy administrator with the MAC address.

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- Step 1** Plug one end of an ordinary Ethernet cable into the **Ethernet 10/100** port on the back of the DMP chassis.
- Step 2** Plug the other end of the Ethernet cable into a network hub, network switch, or router that participates in a DHCP network.
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## 4 Connecting to a DMP Display

We recommend that you use a Cisco LCD Professional Series display, such as LCD-110-PRO-52S or LCD-100-PRO-40N, which are sold separately from a DMP. All displays in the LCD Professional Series are certified and tested to work with the DMS family of products.

If you prefer to use a non-Cisco display, we recommend that you use a digital display, not analog. As for the type of digital display, we recommend that you use LCD, not plasma.

Digital signage uses static images more often than it uses full-motion video. Most often, content is web-based or animated in Flash. The nature of these media types means that some pixels are not updated frequently in digital signage. Given that LCDs are less susceptible to burn-in than plasma displays are, LCD displays are the superior choice for digital signage.

Even though image persistence is sometimes a problem on LCD displays, it is almost always self-correcting and is unlikely to occur if you follow manufacturer guidelines for managing your displays correctly.

You can use displays from any manufacturer, as long as your displays comply with all of the relevant international standards.

To attach most digital display makes and models to your DMP, we recommend that you use the provided HDMI cable for both video and audio. However, it might be possible to attach other

digital display makes and models to your DMP only if you combine the HDMI cable with an HDMI-to-DVI adapter for video, and then use the provided audio cable (3mm jack; red and white RCA plugs) for audio.

To attach an analog display to your DMP, we recommend that you use the provided composite/RCA cable for both video and audio.

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**Step 1** On the back of your DMP chassis, do one of the following:

- If you will connect your DMP to a digital display that has an HDMI interface, plug the male end of the HDMI cable into the HDMI interface on your DMP.
- If you will connect your DMP to a display that does not have an HDMI interface, do all of the following:
  - Plug the male end of the HDMI cable into the HDMI interface on your DMP, and then connect an HDMI-to-DVI adapter to the other end of the HDMI cable.
  - Plug the 3mm jack on the audio cable into the AUDIO interface on your DMP.

- If you will connect your DMP to an analog display, do all of the following:
  - Plug one yellow jack on the RCA video cable into the CVBS interface on your DMP.
  - Plug the 3mm jack on the RCA audio cable into the AUDIO interface on your DMP.

**Step 2** Connect the other end of the cable (or cables) to the corresponding interface (or interfaces) on your DMP display.

**Step 3** If the DMP display is not already turned on, turn it on now.

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## 5 Connecting to a 100V–240V AC Socket



**Warning**

**Use only the supplied power cable and adapter.**

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**Step 1** Connect the DMP power cable to the AC adapter.

**Step 2** Connect the DC barrel connector to the 12V DC power supply on the DMP chassis.

**Step 3** Connect to an AC electrical outlet that you know is grounded, and that uses the correct voltage level for your locale. Supported levels range from 100V to 240V.

To protect your DMP from electrical surges, we recommend that you use a surge protector or an uninterruptable power supply from a reputable manufacturer.

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## 6 Checking the LEDs

The DMP chassis contains a green LED and a red LED. After you attach your DMP to its AC power source, you should see light from both LEDs through the DMP front grille.

The LEDs tell you if your DMP has power and if it has obtained an IP address.

- A solid green LED indicates that a power source is available.
- A solid red LED indicates that your DMP is trying to obtain an IP address. After your DMP has an IP address, it turns off the red LED.

The LEDs do not blink unless they are exposed to infrared signal interference.

## 7 Logging in to DMPDM and Changing its Passwords

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**Step 1** When your DMP display shows the Cisco logo and shows an IP address for your DMP, write down the IP address.





### Tip

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To reconfigure this splash screen in the future to persist for less than or more than the factory-default duration of 30 seconds, choose **Settings > Browser**, enter a new duration in milliseconds in the **Splash Screen Display Time (in milliseconds)** field, and then click **Apply**. Next, choose **Administration > Save Configuration**, and then click **Save**.

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**Step 2** Point your browser to the IP address that you wrote down.

**Step 3** At the login prompt for DMPDM, to log in as the “DMP Web Account” user, enter the username **admin** and the password **default**.



### Caution

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Security in your network might be compromised unless you change the factory-default passwords in DMPDM for *both* of these:

- The DMP Web Account user.
- The DMP Service Account user.

To protect your network against this vulnerability, you **must** complete the rest of this procedure.

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You use the Web Service Account when you log in to DMPDM itself, and the DMP Service Account is a user account with FTP login privileges. The DMP Service Account account is available only when the FTP service is enabled on a DMP.

If you have very few DMPs and will manage each of them in isolation, you can change their DMP Web Account and DMP Service Account passwords manually in DMPDM.

Alternatively, if you have many DMPs and will manage them centrally, you can use the fully licensed DMM-DSM software on your DMM appliance to change both of these passwords globally for all of the DMPs that you have added to a DMP group. Before you can use DMM-DSM in this way, however, you must first complete the [“Setting Up Centralized Management”](#) section on page 22 for each of your centrally managed DMPs.



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**Note**

When you use DMM-DSM to change a password on your DMP, the text string that you enter in DMM-DSM must use the correct syntax for *URI encoding*. The syntax in URI encoding for submitting a string requires that you enter a plus sign (+) instead of a space wherever the value for a queryable object should contain a space. For example, if the queryable object is “user” and its value is “John Smith,” you would enter “user=John+Smith” in your string. If any values in the

string should contain an actual plus sign, you must encode the plus sign explicitly as **%2B**.

Exclamation points (!), question marks (?), ampersands (&), and asterisks (\*) are forbidden in values.

To understand URI encoding and its recommended syntax for submitting query strings, see RFC 1630 at <http://tools.ietf.org/html/rfc1630>.

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**Caution**

Although we recommend very strongly that you complete Step 4 now to protect the security of your network, your DMP will function even if you skip Step 4 and thereby leave open a security vulnerability in your network. Before you can complete Step 4, you must complete the “[Setting Up Centralized Management](#)” section on page 22.

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**Step 4** To change the DMP Web Account password on one DMP by using DMPDM, choose **Administration > DMP Web Account**. Enter your new password in the Password field, enter it again in the Repeat Password field, and then click **Apply**. Next, choose



**Administration > Save Configuration**, and then click **Save**. Next, choose **Administration > Restart DMP**, and then click **Restart**.

Alternatively, you can use DMM-DSM to change the password simultaneously on multiple DMPs in your digital signage network:

- a.** Choose **Digital Media Players > Advanced Tasks > System Tasks**, and then click the blank page icon to create a new system task.
- b.** Enter a name and description for the new task, and then choose **Set** from the Request Type list.
- c.** In the Request text box, use the correct syntax for URI encoding and enter **mibifc.user=admin&mibifc.password=new\_password&mib.save=1**, where *new\_password* is exactly the password that you want to assign to the DMP Web Account user.
- d.** To save the task so that it becomes available for your use, click **Submit**.

- e. To send the password changing instruction simultaneously to multiple DMPs in your digital signage network, do the following:
  - Choose **Schedules > Play Now**.
  - Choose a group from the DMP Groups object selector.
  - Check the check box for each DMP where the DMP Web Account password should change.
  - Choose from the Select an Event Type list the system task that you named in Step 4b.
  - Click **Submit**.



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**Note**

Changes that you make to credentials when you complete Step 4 temporarily prevent your trusted DMM appliance from communicating with your DMPs. To restore proper communication, you must repeat Step 3 in the [“Setting Up Centralized Management”](#) section on page 22.

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- Step 5** To change the DMP Service Account password on one DMP by using DMPDM, choose **Administration > DMP Service Account**. Enter your new password in the Password field, enter it again in the Repeat Password

field, and then click **Apply**. Next, choose **Administration > Save Configuration**, and then click **Save**.

If you prefer, you can use DMM-DSM to change the password simultaneously on multiple DMPs in your digital signage network:

- a. Choose **Digital Media Players > Advanced Tasks > System Tasks**, and then click the blank page icon to create a new system task.
- b. Enter a name and description for the new task, and then choose **Set** from the Request Type list.
- c. In the Request text box, use the correct syntax for URI encoding and enter **init.FTP\_password=new\_password&mib.save=1**, where *new\_password* is exactly the password that you want to assign to the DMP Service Account user.
- d. To save the task so that it becomes available for your use, click **Submit**.
- e. To send the password changing instruction simultaneously to multiple DMPs in your digital signage network, do the following:
  - Choose **Schedules > Play Now**.
  - Choose a group from the DMP Groups object selector.

- Check the check box for each DMP where the DMP Service Account password should change.
  - Choose from the Select an Event Type list the system task that you named in Step 5b.
  - Click **Submit**.
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## 8 Configuring Video Output

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**Step 1** In the Settings area, click **DMP Display Attributes**. The display autodetection feature is enabled by default. If you are satisfied with the choices and entries that DMPDM made for you, *you are done* with this section and you can go now to the [“Setting Up Centralized Management”](#) section on page 22.

Otherwise, if you are *not* satisfied, do the following:

- a.** From the DMP Display Autodetection (requires HDMI) list, choose **Disable**.
- b.** From the Display Standard list, choose the standard that applies in your country. For example, even though our factory default selection is NTSC\_M, your country might use **PAL** instead.
- c.** From the Interface (DMP display output) list, choose the connector type and signal type that you are using. For example, you might use **SVIDEO**.

If you do not know which options to choose, see the manufacturer documentation for your DMP display.

**Step 2** From the Color Space list, choose the absolute color space that your DMP display uses.

**Step 3** If you chose RGB as the color space, choose an option from the Color Component Order list to define the order in which to store red, green, and blue data. This definition is sometimes called the left-to-right additive color model.

**Step 4** (**Optional**) Move any or all of the sliders to compensate for DMP display deficiencies in video (brightness, contrast, or saturation) or audio (channel volume).

- Step 5** To confirm your choices and to implement them until you change them or until you restart your DMP, click **Apply**.
- Step 6** To test if your choices are suitable ones for your DMP display, click **Show IP** in the DMP Mode area.  
Your DMP display should show a Cisco logo and should show the IP address for your DMP.
- Step 7** To make your configuration changes permanent, even after you restart your DMP, do the following:
- Choose **Administration > Save Configuration**.
  - On the Save Configuration page, click **Save**.
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## 9 Setting Up Centralized Management

If your DMP will be managed centrally as part of a digital signage network, you must configure DMPDM and DMM-DSM to work together.



### Caution

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To stop untrusted DMM appliances from being able to seize control of your DMPs, you must configure your network firewall to restrict which devices you will permit to send inbound traffic to

your DMP over TCP port 7777. If you do not know how to work with access control lists, see the manufacturer documentation for your firewall.

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- Step 1** Specify in DMPDM which one DMM appliance to trust.
- a.** Choose **Settings > Centralized Management**.
  - b.** In the **DMM-DSM Server Timeout (in seconds)** field, enter the maximum number of seconds that your DMP should wait for a response from the trusted DMM appliance. (This is the appliance that serves DMM-DSM.)
  - c.** In the **DMM Appliance IP Address** field, enter the routable IP address or DNS-resolvable hostname of the trustworthy DMM appliance.  
  
The **DMM Appliance IP Address** field might already be populated with the correct IP address for your DMM appliance if you used DMM-DSM to autodiscover your new DMP.
  - d.** To confirm your choices and to implement them until you change them or until you restart your DMP, click **Apply**.

- e. To make these configuration changes persist even after you restart your DMP, do the following:
  - Choose **Administration > Save Configuration**.
  - On the Save Configuration page, click **Save**.



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**Note**

DMM-DSM and your DMP communicate over TCP port 7777 when centralized management is enabled.

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**Step 2** Throughout your digital signage network, confirm that your centrally managed DMPs all share:

- Identical user credentials for their DMP Web Account.
- Identical user credentials for their DMP Service Account.

To learn how to make these credentials identical, see the [“Logging in to DMPDM and Changing its Passwords”](#) section on page 13.



- Step 3** Specify in DMM-DSM the correct user credentials for your centrally managed DMPs.
- a. Choose **Settings > Server Settings**.
  - b. Enter the required values:
    - **Servlet Server Address**—If you have not already done so, enter the DNS-resolvable hostname and domain for the appliance that is serving DMM-DSM, like **dmm.example.com**.
    - **DMP User Name**—Enter **admin** or, if you have changed the DMP Web Account username from the default value, enter the new username that you assigned.
    - **DMP User Password**—Enter the password that corresponds to the username.
  - c. Click **Save**.



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**Note**

If you later use a system task in DMM-DSM to change the credentials for your DMPs—as described in the [“Logging in to DMPDM and Changing its Passwords” section on page 13](#)—you must then return to this Server Settings page and update the values so that they are identical to the new credentials for your DMPs. Otherwise, if you do not update this information, DMM-DSM will use obsolete credentials when it tries

to communicate with your DMPs and, when communication fails, will consider your DMPs to be unreachable and unmanageable.

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## 10 Learning About the Remote Control for DMPs

You can use a remote control (Cisco part number DMP-RM-K9=) to operate your DMP. The remote control is sold separately from a DMP.

When you buy this remote control, its product kit contains a printed copy of *Remote Control Quick Start Guide for Cisco Digital Media Players*. Alternatively, you can read the remote control quick start guide on Cisco.com.

# 11 Learning About the Protective Case for DMPs

You can enclose your DMP in a protective steel case that is sold separately from a DMP. This case:

- Can be mounted securely to a wall, pillar, ceiling, metal pole, or VESA-compliant flat-panel display.
- Provides physical stability for a DMP.
- Discourages tampering and prevents theft.
- Is an adaptable and cost-effective alternative to construction.

Cisco manufactures these protective cases in multiple sizes. The size that encloses a DMP 4400G chassis uses the Cisco part number 69-1803-01.

When you buy a protective case, its product kit contains a printed copy of *Protective Case Assembly and Mounting Guide for Cisco Digital Media Players*. Alternatively, you can read the assembly and mounting guide on [Cisco.com](http://Cisco.com).

# 12 Product Documentation, Support, and Security

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, 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>



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