User Guide for Cisco Digital Media Manager 5.1.*x*

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Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

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Preface

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Cisco Digital Media System is the collective name for a product family that consists of Cisco Digital Media Manager (DMM) appliances, Cisco Video Portal appliances, Cisco Digital Media Player (DMP) endpoints, Cisco Digital Media Encoder (DME) devices, and all associated software components.

This guide tells you how to use the software modules that you licensed for your Cisco Digital Media Manager 5.1.*x* software and how to use the Cisco Video Portal Reports 5.1.*x* software that is preinstalled on a Video Portal appliance. Depending on the software feature module licenses that you purchase, DMM helps you to create and manage an online video portal, create and manage a digital signage network, create and manage an enterprise TV network, or do all of these.

The intended audience for this guide is DMM users who create, publish, or manage media for desktop video, digital signage, or enterprise TV. This guide is not meant for systems or network administrators who install, configure, or troubleshoot DMS products. See Cisco.com for related DMS and DMM user documentation

Document Conventions

This guide uses these text formatting conventions:

Item	Convention
Commands and keywords	**boldface** font
Variables for which you supply values	*italic* font
Displayed session and system information	`screen` font
Information you enter	**`boldface screen`** `font`
Variables you enter	*`italic screen`* font
Menu items and button names	**boldface** font
Selecting a menu item in paragraphs	**Option > Network Preferences**
Selecting a menu item in tables	Option > Network Preferences

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Tip Means *the following information will help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information, similar to a Timesaver.

Obtaining Documentation and Submitting 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 the *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.

CHAPTER 1

Overview

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This overview contains the following sections:

- Basic DMS Concepts and Vocabulary, page 1-1
- Client System Requirements, page 1-1
- Understanding DMM Modules and Features, page 1-2

Basic DMS Concepts and Vocabulary

DMS helps organizations of any size to create, manage, organize, encode, and deliver desktop video content (whether live or on-demand), digital signage presentations, emergency messages, and Enterprise TV channels and programs over an IP network to any general or targeted audience.

With DMS, you can:

- Communicate with targeted customers, investors, press, and analysts.
- Deliver live and on-demand events to audiences in any location.
- Deliver critical information and training to employees, suppliers, and partners.
- Deliver educational content to students.

To understand some of the most commonly used DMS terms, abbreviations, and initialisms, see *FAQs and Troubleshooting Guide for Cisco Digital Media System 4.x and 5.x* on Cisco.com.

Client System Requirements

To understand the client system requirements to use DMS products, see *Release Notes for Cisco Digital Media System 5.1.x* on Cisco.com.

Understanding DMM Modules and Features

DMM features are organized into modules; you purchase separately the licenses to use the modules. Depending on what you purchase, you can use DMM to:

- Manage a desktop video network and deliver video content to any audience.
- Manage digital signage and enterprise TV deliver content for them through your network.
- Manage both a desktop video network and a digital signage network.

DMM includes an administrative module at no additional cost that helps you to install licenses to use the other modules. To understand the modules and learn about their features, see:

- Chapter 2, "Managing Administrative Settings for Cisco DMS Components and Users."
- Chapter 3, "Managing Digital Signage and Enterprise TV."
- Chapter 4, "Managing Desktop Video."
- Appendix A, "Using Video Portal Reports."

CHAPTER 2

Managing Administrative Settings for Cisco DMS Components and Users

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Activation

Software feature modules for Cisco DMS are purchased and licensed separately. Features are hidden from all users until you purchase and install the required license to use them, and even then remain hidden from users whose privilege levels are low. To understand feature licenses and learn how to install them, see Managing Licenses for Features and Components of Cisco DMS, page 2-3. To learn how user access to features is restricted by the combination of licenses and user privilege levels, see Understanding User Roles in DMS-Admin, page 2-9. To learn which software feature modules are available for you to purchase, see http://www.cisco.com/go/dms.

Topics in this chapter describe features of User Guide for Cisco Digital Media Manager 5.1.xDMS-Admin that help you to create and administer user accounts, permissions, and profiles for Cisco DMS products, configure the settings for authentication, administer the licenses for software feature modules, and more.

- Using Dashboard Gauges for DMS-Admin, page 2-2
- Managing Licenses for Features and Components of Cisco DMS, page 2-3
- Managing User Accounts and Authentication Settings, page 2-5
- Backing Up and Restoring, page 2-18
- Managing Email, SNMP, Alerts, and Notifications, page 2-18
- Viewing Appliance Processes and Restarting Appliances Remotely, page 2-22

Starting DMS Administration Module (DMS-Admin)

Procedure

Step 1 Do one of the following:

- Click **Administration** on the DMM dashboard.
- Choose **Administration** from the global navigation.

Using Dashboard Gauges for DMS-Admin

When you start DMS-Admin after you have installed at least the license key to use one software feature module, the landing page by default is a dashboard that shows five gauges. In addition, you can choose to see and use this dashboard at any time.

The dashboard for DSM-Admin centralizes all features for system monitoring and log collection. If problems of any kind interfere with the data-collection processes that populate its gauges, they will show question marks in addition to the best data that is available. In this case, check that your systems and network are configured and working correctly.

Procedure

Step 1 Click the **Dashboard** tab.

Related Topics:

UI Reference: Dashboard Gauges, page 2-2

UI Reference: Dashboard Gauges

Navigation Path

Administration > Dashboard.

Table 2-1 DMS-Admin Gauges

Name	Description
Alerts	Shows the total count of email and SNMP notification messages delivered in the past 1 hour. To jump directly to the Alerts page, click **View Alerts**.
License Features	Lists software feature module licenses that are installed on your DMM appliance and describes any constraints that these licenses impose.
Status	Summarizes the current state of your Video Portal appliance and of all registered DMPs in your network, assuming that you set up the hardware and installed the separately licensed software features for these device types. This gauge organizes data in these subsections: • Digital Media Players—Counts the total number of registered DMPs and specifies how many were reachable or unreachable when you loaded this gauge in your browser. Click **View All DMPs and DMP Groups** to jump directly to the DMP Manager page. • Video Portal Appliance—Shows you whether your Cisco Video Portal appliance was unreachable at any time in the past 1 hour. Counts the number of Video Portal deployments that were pending or completed when you loaded this gauge in your browser. To jump directly to the live HTTP URL of your Video Portal, click **Go to Video Portal**. To jump directly to the DMM-VPM landing page, click **Manage Video Portal**. This DMM release supports your use of only one Video Portal appliance. To update the data that this gauge shows, refresh your browser.

Table 2-1 DMS-Admin Gauges (continued)

Name	Description
System Information	This gauge: • Tells you the installed release version of your DMM server software. • Shows free disk space and used disk space on your DMM appliance and Video Portal appliance. – The disk space descriptions for your DMM appliance pertain only to the /dm2 partition where local copies of assets are stored temporarily after you upload them. – Even though your Video Portal appliance might report that it has ample free disk space, you should not use it to store video files or any other data except the files that Cisco DMS generates. We do not support any use of your Video Portal appliance as a storage server. Any unsupported data that you store on it will be lost irretrievably each time that you upgrade, restore, or reinstall Cisco software. • Tells you whether the most recent replication of data succeeded between your Cisco DMS appliances.
Users Logged In (Past 1 Hour)	Counts the total number of users who logged in to each of your DMS appliances over the past 1 hour. To jump directly to the Users page in DMS-Admin, click **View All Users**.

Related Topics

- Using Dashboard Gauges for DMS-Admin, page 2-2
- Managing User Accounts and Authentication Settings, page 2-5
- Managing Email, SNMP, Alerts, and Notifications, page 2-18
- Managing and Grouping Your DMPs, page 3-12
- Chapter 4, “Managing Desktop Video.”

Managing Licenses for Features and Components of Cisco DMS

This section contains these topics:

- Obtaining and Installing License Keys for Software Features, page 2-3
- Viewing the List of Installed Licenses, page 2-5

Obtaining and Installing License Keys for Software Features

When you log in to DMM before you have installed the license key to use *any* software feature module, the landing page by default is the page in DMS-Admin (at Licensing > Install/Upgrade Licensing) where you can install a license key.

To obtain a license key and use it to activate the DMM software feature modules that you have purchased, do the following:

Procedure

Step 1 Confirm that you know the serial number and IP address for your DMM appliance. If you do not know the serial number or IP address, do the following:

a. Use the **admin** username and its associated password at the login prompt on your DMM appliance, to log in to AAI. In the displayed menu, the SHOW_INFO option is highlighted by default.

b. Press **Enter**, and then write down these values that AAI shows to you:

- The IP address for your DMM appliance.
- The 10-character serial number for your DMM appliance.

Step 2 Compose an email message that includes or identifies *all* of the following:

- All Cisco sales order numbers that were associated with your Cisco DMS purchase (such as, appliances, software modules for DMM, and DMPs), including even the sales order numbers for all purchased products and services that are not components of Cisco DMS.
- The 10-character DMM appliance serial number that AAI showed to you in Step 1-b.
- Your email address.
- The name of your organization.
- The department name within your organization.
- The DMM software feature module (or modules) that you purchased.
- If you purchased DMM software feature modules for digital signage or enterprise TV, include the number of DMPs that you will manage centrally. Permitted increments for the number of DMPs are multiples of 10.

Step 3 Send the email message to dms-softwarekeys@cisco.com.

Step 4 After you receive the license key file from Cisco, save a local copy of it.

Step 5 To load DMM in a web browser, use the DMM appliance IP address that you saw in AAI (http://<*DMM_IP_address*>:8080/).

Step 6 To use DMS-Admin, do one of the following:

- Click **Administration** on the DMM dashboard, .
- Choose **Administration** from the global navigation.

Step 7 Choose **Licensing > Install/Upgrade Licensing**.

Step 8 Click **Browse**, find and click the license file where you saved it, and then click **Open**.

Note The format for licenses in Cisco DMS 5.*x* differs from the obsoleted format that was used in earlier DMS releases. This release does not support license files that use the obsoleted format, and will reject such licenses as invalid if you try to install them.

Step 9 Click **Install License**.

The pertinent software feature module is now enabled.

Tip If you receive multiple license key files, repeat the procedure until all of your licenses are installed.

Related Topics

- Viewing the List of Installed Licenses, page 2-5

Viewing the List of Installed Licenses

To see which DMS features you have licensed:

Procedure

Step 1 Choose **Licensing > View Licensing**.

Alternatively, the License Features gauge on the DMS-Admin dashboard also lists software feature module licenses that are installed on your DMM appliance. See Using Dashboard Gauges for DMS-Admin, page 2-2.

Related Topics

- Obtaining and Installing License Keys for Software Features, page 2-3

Managing User Accounts and Authentication Settings

Features of DMS-Admin help you to:

- Assign differing levels of access and permissions to users of DMM feature modules, Video Portal Reports, and Video Portal, depending on their roles and responsibilities.
- Make choices to enable or disable user authentication.
- Choose and configure an authentication method, such as LDAP (Active Directory). Optionally, import from your LDAP server the basic settings for any of its user accounts and user groups.

This section contains these topics:

- Understanding User Management Concepts and Workflow, page 2-6
- Configuring User Accounts Manually, page 2-7
- Understanding User Roles in DMS-Admin, page 2-9
- Configuring Authentication Settings, page 2-9

Understanding User Management Concepts and Workflow

This worksheet will help you to understand the expected sequence of user management tasks as well as the important concepts that underlie them:

✓	Task
❑	**1. Work with any preexisting user accounts that you migrated from an earlier Cisco DMS release.** If you upgraded to Cisco DMS 5.1.*x* from any 4.1.*x* release on which you had licensed the features for digital signage networks, it is possible that some formerly redundant usernames from your licensed software modules are now unique. This will have occurred if an identical username was configured for use in both DMM-VPM and DMM-DSM. As just one possible example, you might have configured the username *admin* to work in both of these software modules. Migration during your upgrade will have consolidated all user accounts into DMS-Admin, and any redundant usernames from your preexisting DMM-DSM configuration now have a suffix appended to them. The suffix is exactly: *_dsm*. So, where this scenario supposes that the twice-used username was *admin* in Cisco DMS 4.1.*x*, the two migrated usernames in this newer Cisco DMS release would be: • *admin* (for the user account that you migrated from DMM-VPM). • *admin_dsm* (for the user account that you migrated from DMM-DSM). You might now want to assign sufficient access rights and permissions to *one* of the migrated accounts so that you can delete the *other* account safely, without disrupting the approvals workflow or other established practices in your organization. In this example scenario, the ideal result might be that you are left with only one user account called *admin*, whose assigned rights and permissions across all of your installed Cisco DMS products are at least sufficient to manage all suitable features for desktop video and digital signage.
❑	**2. Create new user accounts.** To create user accounts manually for DMM software modules, Video Portal Reports, and your Video Portal, you use DMS-Admin. Any user accounts that you create manually will be in addition to those whose creation you automate by importing user account data from an Active Directory server. By default, each new user account that you create has the DMS-Admin user role of "Other" until you assign access rights and privileges to it in at least one DMM software module. User accounts are severely limited in their access when they have this user role.
❑	**3. Create user groups.** To create a new user group, choose **Administration > Users > Create Group**, and then enter the required values. To save your work, click **Save**.
❑	**4. Assign access rights and permissions.** After you create user accounts, you assign access rights and privileges separately for these users in the DMM software modules that pertain to them. The access rights and privileges that you assign to a user account are always specific to an environment for desktop video or digital signage (the latter of which includes enterprise TV). Therefore, you assign access rights and privileges to users in the individually licensed and separately installed DMM software modules that are applicable per user: • For desktop video, choose **Video Portal > Users > User Accounts**. • For digital signage or Enterprise TV, choose **Digital Signage > Settings > User Accounts**.
❑	**5. Assign users to user groups.** When you first create a user account in DMS-Admin, you can associate the account with a user group immediately or you can do so after you assign access rights and permissions to the user.

Related Topics

- Configuring User Accounts Manually, page 2-7
- Deleting User Accounts, page 2-8

- Configuring Authentication Settings, page 2-9
- Understanding User Roles in DMS-Admin, page 2-9
- Chapter 3, "Managing Digital Signage and Enterprise TV"
- Chapter 4, "Managing Desktop Video"

Configuring User Accounts Manually

This section contains these topics:

- Creating and Editing User Accounts, page 2-7
- Deleting User Accounts, page 2-8

Creating and Editing User Accounts

Tip You cannot create any new user accounts manually while your authentication method is LDAP. To understand the authentication options for Cisco DMS products, see Configuring Authentication Settings, page 2-9.

You can create a new user account or to edit the settings manually for an account.

Procedure

Step 1 Click the **Users** tab, and then do one of the following:

- To create a new account, click **Add New User**, and then enter the required values in the Add New User dialog box.
- To edit an account, click its entry in the untitled table that describes all user accounts, choose **Options > Edit User**, and then make changes to its values in the Edit User dialog box.

If you do not understand your options in the {Add New|Edit} User dialog box, see Table 2-2 on page 2-8.

Step 2 (Optional) Enter contact information and assign the user to a user group.

Step 3 Click **Save**.

Related Topics

- UI Reference: Elements to Configure User Account Settings, page 2-8
- Deleting User Accounts, page 2-8

UI Reference: Elements to Configure User Account Settings

Navigation Path

Administration > Users

Table 2-2 Elements for Creating and Editing User Accounts Manually

Element	Description
First Name	This required value might be identical for multiple users.
Last Name	This required value might also be identical for multiple users.
Email Address	The email address to be associated with this user account.
Username	A unique username. The name is unique in the sense that you have not used it as the name for any other user account for any component of Cisco DMS. You must enter the username.
Password	The password for the user account. You must enter a password, then reenter it.
Re-enter password	
Active list	Signifies whether the account holder is an active or inactive user of Cisco DMS. Alternatively, signifies whether the account holder is active in your organization.
Optional Contact Info	
Company	The agency, corporation, nonprofit organization, or other such institution to be associated with this user account.
Department	The department within the institution.
Phone	The telephone number to be associated with this user account.
Optional Group Selection	
Unlabeled check box	Marks the groups to which this user should belong.
Groups column	Shows the group name.
Description column	Optional, brief description of the group and its purpose.

Deleting User Accounts

You cannot delete the superuser account but you can delete any other user account.

Procedure

Step 1 Click the **Users** tab and then, in the untitled table, click the user account that should be deleted.

To mark multiple user accounts for deletion, Ctrl-click.

Step 2 Choose **Options > Delete User**.

Related Topics

- Creating and Editing User Accounts, page 2-7
- UI Reference: Elements to Configure User Account Settings, page 2-8

Understanding User Roles in DMS-Admin

User roles in DMS-Admin are the automatic result of a logical operation. You cannot use DMS-Admin to assign a user role directly to any user.

In some cases, users who are authorized to log in to one DMM software module will be authorized also to log in to at least one additional software module. The DMS-Admin user role that you see for a user account is based on *all* privileges and access settings that the user has, combined across *all* of your licensed and installed DMM software modules.

Table 2-3 Logic That Determines User Role Designations in DMS-Admin

User Role	Logic
Admin	This user role is assigned automatically to any user who is an administrator in any DMM software module. These users have full read/write access to all users and user groups in DMS-Admin and can manage settings for them.
Group Admin	This user role is assigned automatically to any user who is a content author for desktop video but is not an administrator in any DMM software module. These users cannot see information about user accounts and groups in DMS-Admin, nor can they create, edit, or delete them. However, these users can create user groups as part of the workflow in DMM-VPM when they assign the rights to view a new or preexisting video part.
Read-Only	This user role is assigned automatically to any user who is neither a content author for desktop video nor an administrator in any DMM software module. These users can see information about users and user groups in DMS-Admin but cannot create, edit, or delete them.
Other	This user role in DMS-Admin is assigned automatically to any user who has not been granted any explicit access settings or privileges in any DMM software module, or who is part of the audience for a Video Portal but has no other privileges. These users are prevented from logging in to any DMM software module.

Configuring Authentication Settings

Two types of user authentication are available in Cisco DMS. *Embedded authentication* is completely native to DMM, while *LDAP authentication* causes Cisco DMS products to rely on a Microsoft Active Directory server.

Although Cisco DMS always requires one kind of authentication or the other, you can enable or disable authentication for users of Video Portal and Video Portal Reports. In addition, you can choose the user authentication method for DMM-DSM, DMM-ETV, DMM-VPM, Video Portal, and Video Portal Reports.

Procedure

Step 1 Choose **Settings > Authentication**.

The Authentication page contains four tabbed property sheets: *Select Mode*, *Define Filter*, *Synchronize Users*, and *Manage Attributes*. In most production environments, you can expect to use the Select Mode property sheet only one time. Nonetheless, your choices on the Select Mode property sheet determine whether you have access to the other three property sheets. Therefore, Select Mode is by default the only active tab.

Step 2 Use elements on the Select Mode property sheet to enable or disable authentication and to choose an authentication mode.

Step 3 Click **Update**, and then consider which of the following scenarios applies to you.

- No Authentication
  - If you disabled authentication—where you had not used *any* authentication mode previously—you are done with this procedure. You did not change anything.
  - If you disabled authentication—where you had used LDAP authentication previously—you must explicitly choose whether Cisco DMS should keep a local copy of the user account data that originated from your Active Directory server. If you want to save the local copy, check the **Save LDAP Users** check box. Otherwise, the local copy is discarded. You are done with this procedure.
- Embedded Authentication
  - If you enabled embedded authentication—where you had not used *any* authentication mode previously—you are done with this procedure.
  - If you enabled embedded authentication—where you had used LDAP authentication previously—you must explicitly decide whether Cisco DMS should keep a local copy of the user account data that originated from your Active Directory server. If you want to save the local copy, the **Save LDAP Users** check box. (When you save a local copy, DMS-Admin changes all of the user passwords in it automatically to *CiscoDMMvp99999*. This security feature protects your network and user data if anyone gains unauthorized access to the exported file, because your Active Directory server recognizes that the password as incorrect if anyone attempts to use it.) Otherwise, the local copy is discarded. You are done with this procedure.
- LDAP Authentication

  If you enabled LDAP authentication, the three tabs—*Define Filter*, *Synchronize Users*, and *Manage Attributes*—that were previously dimmed are now available for you to click and use. To actually use LDAP authentication after you choose it as the mode, you must also use features under the Define Filter tab to configure and add a new agreement, and then use features under the Synchronize Users tab to submit the new agreement for synchronization.

Step 4 (Optional) Click **Define Filter**, and then use elements on the Define Filter property sheet to define, validate, and add one LDAP filter at a time.

Step 5 Do both of the following:

a. Choose **Synchronize Users > LDAP Bookmarks**, and then use elements on the LDAP Bookmarks property sheet to do any or all of the following:
   - Choose the synchronization type for, and specify the default access privileges that you will assign to, user accounts that you will import to Cisco DMS because they correspond to a defined Active Directory filter.
   - Use the synchronization type that you chose, so that Cisco DMS synchronizes user accounts that correspond to a defined Active Directory filter.
   - Delete from Cisco DMS all of the user accounts that correspond to a defined Active Directory filter and delete the entry for that filter from DMS-Admin.

b. Choose **Synchronize Users > Scheduling**, and then use elements on the Scheduling property sheet to choose between manual synchronization and automatic synchronization.

Note Until you have defined at least one filter on the Define Filter property sheet, you will not see any of the elements that Table 2-6 describes.

Step 6 Click **Update**.

Step 7 (Optional) Click **Manage Attributes**, and then use elements on the Manage Attributes property sheet to:

- Set the associations between DMS-Admin attribute names and their corresponding Active Directory attribute names.
- Use the predefined and typical names for Active Directory attributes (shown in grey text) or edit those attribute names so they match the names that your Active Directory server uses.
- Enter the values to use by default in DMS-Admin when a user account attribute is not defined on your Active Directory server.

You must enter a value for each mandatory attribute. You cannot enter a value to use by default for user names, because each user name is unique.

Step 8 Click **Update**.

The authentication settings that you changed are now in effect.

Related Topics

- UI Reference: Elements to Choose and Enable the Authentication Mode, page 2-11
- UI Reference: Elements to Define, Validate, and Add LDAP Filters, page 2-14
- UI Reference: Elements to Use Manual or Automatic Synchronization, page 2-15
- UI Reference: Elements to Manage Attributes, page 2-17

UI Reference: Elements to Choose and Enable the Authentication Mode

Navigation Path

Administration > Settings > Authentication > Select Mode

Table 2-4 Elements for the Authentication Mode

Element	Description
No Authentication	Requires users who log in to authenticate (enter a username and password) against the user account database for DMM, but does not impose any authentication restrictions for access to Video Portal or Video Portal Reports.
Embedded Authentication	Requires users who log in to DMM-DSM, DMM-ETV, DMM-VPM, Video Portal, and Video Portal Reports to authenticate against a user account database that is native to DMM and is independent of every other type of authentication that you might use in your network.

Table 2-4 Elements for the Authentication Mode (continued)

Element	Description
LDAP Authentication	Automatically deletes all user accounts, except the superuser account. Requires future users to authenticate against the user account data from your Active Directory server when they log in to DMM-DSM, DMM-ETV, DMM-VPM, Video Portal Reports, or Video Portal. Although the user account data originates from your Active Directory server, Cisco DMS *does not* synchronize (replicate) the data automatically, in real time. Instead, you must resynchronize the user account data whenever you think it is appropriate to do so. You can resynchronize manually or you can schedule synchronizations to recur in the future at intervals that you specify. **Note** Lightweight Directory Access Protocol (LDAP) is a highly complex data model and communications protocol for user authentication. The LDAP features in Cisco DMS are meant for use by qualified and experienced administrators of Microsoft Active Directory. Unless you are an Active Directory and LDAP expert, we recommend that you choose another option than LDAP. Even though it is possible in Active Directory to use a blank value for a password, Cisco DMS does not allow it. Therefore, when you use LDAP authentication, any user whose Active Directory password is blank will be prevented from logging in to DMM-DSM, DMM-ETV, DMM-VPM, Video Portal, and Video Portal Reports until the password is changed on the Active Directory server. There is no requirement to resynchronize the affected user account in DMS-Admin after you change its password on your Active Directory server. DMS-Admin synchronizes all user accounts in the Active Directory user base that you specify in a filter, **excluding the users whose accounts are marked as disabled** on your Active Directory server.
SSO Authentication	Enable single sign-on for web-based software that is served from your DMM appliances and Video Portal appliances.
Anonymous	Enables or disables an anonymous LDAP connection between your DMM appliance and your Active Directory server. An anonymous connection is suitable when you want to see or use *public* information on the Active Directory server. In contrast, if you want to see or use *privileged* information on your Active Directory server, the server will require you to enter login credentials to prove that you have sufficient access rights. In the latter case, your Active Directory server will reject any attempt to use an anonymous login. This check box is available to you only when you choose LDAP Authentication or SSO Authentication.
Host	Enter the routable IP address or DNS-resolvable hostname for the Active Directory server. This field is available to you only when you choose LDAP Authentication or SSO Authentication.
Port	Enter the TCP port number that your Active Directory server uses for its LDAP communications. This field is available to you only when you choose LDAP Authentication or SSO Authentication. The Active Directory port number by default is 389 for LDAP communications and 636 for LDAPS (Secure LDAP or LDAP over SSL) communications.

Table 2-4 Elements for the Authentication Mode (continued)

Element	Description
Use SSL Encryption	A check box, by which you enable or disable encrypted sign-on. To enable encryption, check the check box; to disable encryption, uncheck it. This check box is available to you only when you choose LDAP Authentication or SSO Authentication. If you chose LDAP Authentication, enabling SSL causes the connections between your DMM appliance and your Active Directory server to use LDAPS. An LDAPS connection is suitable when you want to prevent untrusted third parties from reading credentials that the servers exchange.
Active Directory Certificate File	The method by which to upload the digital certificate that your Active Directory server uses for LDAPS communications. This field is available to you only if you checked the Use SSL Encryption check box. The X.509 certificate that you provide must be DER-encoded and can be supplied in binary or printable (Base64) encoding. If you use Base64 encoding,the certificate file must include the -----BEGIN CERTIFICATE----- and -----END CERTIFICATE----- lines. To open and use the Upload Certificate File dialog box: 1. Click **Upload**, then, click **Add**. 2. Browse to the file on a local volume. 3. Click the filename and press **Enter**. 4. To save your work and dismiss the dialog box, click **OK**.
Current Certificate File	Identifies the digital certificate that is installed in DMS-Admin for use during LDAPS communication with your Active Directory server.
Administrator DN	Enter the Active Directory server administrator distinguished name. This field is available to you only if you chose LDAP Authentication and unchecked the Anonymous check box.
Password	Enter the password that is associated with the Administrator DN. This field is available to you only if you chose LDAP Authentication and unchecked the Anonymous check box. **Tip** If an error message tells you that your Active Directory password is not valid, confirm on your Active Directory server that you have not set the "User must change password at next login" flag. DMS-Admin cannot change your password on an Active Directory server. Instead, you must use the user interface that your Active Directory server provides for that purpose. While this flag is set, you are prevented from logging in to any Cisco DMS component until you have changed your password on the Active Directory server.
Update	Saves and applies your work on the Authentication Mode property sheet.
Cancel	Discards your work on the Authentication Mode property sheet and resets all values to their previous configuration.

Related Topics

- Configuring Authentication Settings, page 2-9
- UI Reference: Elements to Define, Validate, and Add LDAP Filters, page 2-14
- UI Reference: Elements to Use Manual or Automatic Synchronization, page 2-15

- Synchronization Mode, page 2-16
- UI Reference: Elements to Manage Attributes, page 2-17

UI Reference: Elements to Define, Validate, and Add LDAP Filters

Navigation Path

Administration > Settings > Authentication > Define Filter

Table 2-5 Elements for Filters

Element	Description
Description	Enter a human-readable description for the filter.
User Base DN	Enter the distinguished name of the Active Directory user base that you will search. **Note** Never use a filter in which you define the user base at the domain level. As one example, the following filter would be unacceptable: `dc=cisco, dc=com`. Instead, you should use filters that define the user base at a lower level, like this example does: `ou=sanjose, dc=cisco, dc=com`.
User Filter	Enter a user filter to limit the number of matching user accounts to import from the user base that you specified.
Add	Adds the filter, exactly as entered, without first validating it.
Validate	Validates the filter to confirm, before you add it, that it will return meaningful results. **Tip** If an error message tells you that filter validation failed, confirm on your LDAP server that your filter did not make any reference to an empty organizational unit (OU) container. Filters fail when they point to empty containers.
Clear	Clears all entries from the Define Filters property sheet.

Related Topics

- Configuring Authentication Settings, page 2-9
- UI Reference: Elements to Choose and Enable the Authentication Mode, page 2-11
- UI Reference: Elements to Use Manual or Automatic Synchronization, page 2-15
- UI Reference: Elements to Manage Attributes, page 2-17

Configuring the Settings for Automatic Synchronization

Procedure

Step 1 Click the calendar icon ( ) to choose the start date for synchronization.

Step 2 Choose the hour and minute when synchronization should begin, and then choose either AM or PM as the period.

Step 3 From the Repeat Interval list, choose the interval of recurrence:

Interval	Description
Never	Synchronization will occur one time and will not recur.
Every Day	Synchronization will recur once every 24 hours, starting at the specified hour and minute.
Every Week	Synchronization will recur once every 7 days, starting at the specified hour and minute.
Every Month	Synchronization will recur once each month, starting at the specified hour and minute.
Custom	Synchronization will recur at the interval you define, starting at the specified hour and minute. Choose whether the interval type is Days, Weeks, or Months. If the interval type is Days, choose a day of the month from 1 to 30. If the interval type is Weeks, choose the day of the week. If the interval type is Months, choose an interval of recurrence from 1 to 6.

Step 4 (Optional) If, in addition to the start date and time that you specified, a one-time synchronization should also start immediately, check the **Synchronize users immediately** check box. This check box is available to you only if you clicked the Automatic Synchronization radio button.

UI Reference: Elements to Use Manual or Automatic Synchronization

Navigation Path

Administration > Settings > Authentication > Synchronize Users

Table 2-6 Elements for Synchronization

Element	Description
LDAP Bookmarks property sheet	
Synchronization	**Tip** We recommend that you use the Initial synchronization option and the Overwrite synchronization option during *off-peak* hours only. These synchronization types are CPU-intensive for your DMM appliance and might cause its performance to drop temporarily to an unacceptable level. One of the following: • **Initial**—Runs a one-time synchronization for a new filter that you never synchronized previously. • **Update**—Runs an incremental, fast update to find and make up for any differences between user accounts that match your Active Directory filter and your local copy of those user accounts. • **Overwrite**—Overwrites your local copy of user accounts that correspond to your Active Directory filter with new copies of those user accounts. In addition, deletes your local copy of each user account that has been deleted from Active Directory since the last time that you ran a synchronization. • **Delete**—Deletes your local copy of user accounts that correspond to a defined Active Directory filter and deletes the entry for that filter from DMS-Admin.

Table 2-6 Elements for Synchronization (continued)

Element	Description
Access Rights	One or both of the following: • **VP**—When checked, this check box enables login access to your Video Portal for users who match the corresponding Active Directory filter. When you uncheck the check box, those same users are prevented from logging in to your Video Portal. • **VPR**—When checked, this check box enables login access to see and use Video Portal Reports for users who match the corresponding Active Directory filter. When you uncheck this check box, those same users are prevented from seeing and using Video Portal Reports.
Update	Submits your selections for the type of synchronization and the scope of access that you chose and configured. Synchronization of the specified type starts immediately.
Cancel	Discards any changes you made to the configuration of behaviors for synchronizations and the scope of access, and resets all entries to their previous values on the LDAP Bookmarks property sheet and the Scheduling property sheet.
Scheduling property sheet	
Synchronization Mode	Enables one or the other of two possible modes, which are mutually exclusive, to receive updated user account information from your Active Directory server. Click one radio button: • **Manual Synchronization**—Mode that requires during each subsequent synchronization of each configured LDAP bookmark that you must choose **Administration > Settings > Authentication > Synchronize Users > LDAP Bookmarks**; then, click **Update**. When you choose this mode, you delete any schedule that you configured previously to define automatic synchronizations. • **Automatic Synchronization**—Mode that automates and schedules the recurrence of incremental updates of all user accounts that correspond to your defined Active Directory filters in DMS-Admin. As soon as you click this radio button, fields and elements that were hidden from you become available for your use, so that you can complete this required procedure: Configuring the Settings for Automatic Synchronization, page 2-14.
Update	Submits your selections for the type of synchronization and the scope of access that you chose and configured. Synchronization of the specified type starts immediately.
Cancel	Discards any changes you made to the configuration of behaviors for synchronizations and the scope of access, and resets all entries to their previous values on the LDAP Bookmarks property sheet and the Scheduling property sheet.

Related Topics

- Configuring Authentication Settings, page 2-9
- UI Reference: Elements to Choose and Enable the Authentication Mode, page 2-11
- UI Reference: Elements to Define, Validate, and Add LDAP Filters, page 2-14
- UI Reference: Elements to Manage Attributes, page 2-17

UI Reference: Elements to Manage Attributes

Navigation Path

Administration > Settings > Authentication > Manage Attributes

Table 2-7 Elements for Attributes Management

Element	Description
DMM Attribute Name	Values that DMS-Admin uses to describe and identify various attributes that it associates with each user account. You cannot change the values in this column. They are for your reference only, to help you enter suitable values (and recognize suitable values when you see them) in the LDAP Attribute Name column and the Values to Use by Default column.
LDAP Attribute Name	Values that your Active Directory server uses—which correspond one-to-one with values in the DMM Attribute Row column—to describe and identify attributes of each user account. In its factory-default configuration, DMS-Admin prepopulates all fields in this column with the most commonplace values that Active Directory servers use for this purpose. If the values for these attributes differ on your Active Directory server or if you prefer to import objects that use other Active Directory attributes, you can edit the values in this column. Ordinarily, DMS-Admin *will not* import any user account from your Active Directory server when the value in it is blank for any of these attributes: • Login User Name—This required value always must be unique. • First Name—This required value might be identical for multiple users. • Last Name—This required value might also be identical for multiple users. However, you can import and synchronize all of the Active Directory user accounts that match your filters, even if some of the user accounts are incomplete because one or more of their attributes have blank values. To prevent these undefined attributes from blocking the import of the user accounts they are meant to describe, you can enter generic values for most attributes in the Values to Use by Default column. DMS-Admin takes the generic values that you enter, and then inserts them automatically where they are needed. Nonetheless, you cannot ever enter a value to use by default for the Login User Name attribute, because each username is unique.
Values to Use by Default	Enter text to insert automatically when the value is blank for the corresponding attribute in an Active Directory user account that you import or synchronize. To ensure that DMS-Admin imports each valid user account that matches a filter, we recommend that you enter values for these attributes: • First Name • Last Name For your convenience, you can also enter values to insert automatically when the values are blank for other attributes—such as Company, Department, or Phone Number—but this is optional. **Note** You cannot enter a value to use by default as the Login User Name value.
Reset to Factory Default	Returns all values in the LDAP Attribute Name column to the most commonplace values that Active Directory servers use. If you entered different values manually because the labels for these attributes differ on your Active Directory server or because you prefer to import user accounts that use other Active Directory attributes, DMS-Admin deletes what you entered.
Update	Saves and applies your work in the Manage Attributes property sheet.

Related Topics

- Configuring Authentication Settings, page 2-9
- UI Reference: Elements to Choose and Enable the Authentication Mode, page 2-11
- UI Reference: Elements to Define, Validate, and Add LDAP Filters, page 2-14
- UI Reference: Elements to Use Manual or Automatic Synchronization, page 2-15

Backing Up and Restoring

Note Backups that you generate from DMS-Admin in this release do not include any media assets that are stored on any device for any purpose. We recommend that you use another method to create backups of these files.

You can save backups of data on your DMM appliance and your Video Portal appliance (if you have one), and restore from backups that you saved.

Procedure

Step 1 Click **Backup**.

Step 2 Do one of the following:

- Click **Download** to save an encrypted, local copy of the XML data, metadata, database records, and license keys for all of your Cisco DMS components.
- To restore your DMS components from an encrypted backup file that you saved previously, click **Browse**; then, find and select that file in its subdirectory, press **Enter**, and click **Submit**.

Managing Email, SNMP, Alerts, and Notifications

DMS-Admin supports email (SMTP) natively; in addition, you can purchase and install a license key to activate SNMP. In the context of this basic framework for notifications and queries, you can associate alarms with system events and configure the settings to use email or SNMP for the delivery of notification messages.

This section contains these topics:

- Enabling or Disabling Email, page 2-19
- Enabling or Disabling SNMP, page 2-19
- Configuring Alert Reports and Notification Settings, page 2-20
- Understanding Event Types, page 2-21

Enabling or Disabling Email

You can enable or disable the email service (SMTP) on your DMM appliance. When this service is enabled, DMS-Admin can send email notifications automatically to you or other interested parties whenever system events of predefined types occur.

Before You Begin

To see and use the Settings tab, you must be logged in as an administrator.

Procedure

Step 1 Choose **Settings > SMTP Server** and then enter the required values so that your DMM appliance can run or will stop the email service. You must enter these values or you cannot send notification messages:

Value	Description
Server Status	Click the radio button to enable or disable the email service.
Host	The routable IP address or DNS-resolvable hostname.
Port	The number to identify which TCP port is reserved for SMTP traffic.

Step 2 Click **Save**.

Enabling or Disabling SNMP

Caution SNMPv1 and SNMPv2c are not secure protocols. You cannot use a firewall to secure SNMP traffic.

After you purchase and install a license key to use the SNMP Notification Module, your copy of DMS-Admin can use either the *SNMPv1* protocol or the *SNMPv2c* protocol to respond to Cisco DMS MIB schema-compliant queries from your NMS and send notification messages automatically to your NMS whenever system events of predefined types occur for:

- The MCS hardware platform that underlies DMM and Video Portal appliances.
- Digital Media Manager software modules and Video Portal.
- DMPs (in the sense that, when your DMPs report their events to your DMM appliance, it forwards the appropriate SNMP alerts).

Note In this release, the SNMP Notification Module does not support:

- The SNMPv3 protocol.
- Any monitoring of Cisco Digital Media Encoders (DMEs). However, you can use the DME console in DMM-VPM for this purpose.

After you purchased a license key to use the SNMP Notification Module, you received (or were told how to obtain) a network management MIB file called *CISCO-DIGITAL-MEDIA-SYSTEMS-MIB.my*, and you received the *agent capabilities* file that describes which MIB objects are supported in this release of

Cisco DMS. You can load the MIB file into he MIB browser for any dedicated NMS that supports SNMP, such as CiscoWorks or HP OpenView. Your NMS can then send SNMP queries to DMS-Admin and represent the responses correctly. The supported MIB objects in this release allow monitoring of:

- **DMS Systems Group**—Models all distributed component parts of this Cisco DMS installation as a single, abstract system.
- **DMS Features Group**—Categorizes licensed and unlicensed features.
- **DMS Inventory Group**—Lists the devices that constitute this Cisco DMS installation and describes their operational status.

SNMP features in this release are read-only; your NMS can use SNMP to submit queries to DMS-Admin but cannot use SNMP to edit the configuration of any Cisco DMS component.

Use the following checklist to track your work with the separately licensed features for SNMP:

✓	Task
❑	**1. Configure SNMP server settings for your DMM appliance.** **a.** Choose **Settings > SNMP**, and then enter the required values so that your DMM appliance can run or will stop the SNMP server service: • Server Status—Click the radio button to enable or disable SNMP monitoring. • Host—The routable IP address or DNS-resolvable hostname of the NMS. • Port—The number to identify which UDP port is reserved for SNMP traffic. • Community String—A password that identifies the community of the external SNMP server to which DMS conveys notifications. By default, the entry is *public*. **b.** Click **Save**.
❑	**2. Load both the *CISCO-DIGITAL-MEDIA-SYSTEMS-MIB.my* file and its corresponding "agent capabilities" file into the MIB browser for your NMS.** Manufacturer documentation for your NMS should tell you how to load these files. When your NMS prompts you to enter the SNMP port number for your DMM appliance, use the port number **161**.

Note You cannot edit the (default) community string of your DMM appliance.

Configuring Alert Reports and Notification Settings

Procedure

Step 1 Click the **Alerts** tab.

Step 2 (Optional) To define the parameters for an alert report:

a. Click **Alert Reports**, then click the radio button to use either Live Event Mode or Snapshot Mode:

- Live Event Mode—
- Snapshot Mode—

b. Choose the range of dates,

c. Choose an event type from the Type list, and then click **Apply**.

Step 3 (Optional) To define the settings for notifications:

a. For each event type, choose a notification method. The methods are:

- **No Notification**—Disables notifications for all events of the corresponding type.
- **Email**—Enables automatic delivery of email notification messages for all events of the corresponding type. Activates the Recipient field, so that its email address value is editable; enter the email address that should receive notification messages. You can enter a unique recipient address for each of the notification event types.Requires that you have enabled SMTP.
- **SNMP**—Enables automatic delivery of notification messages to your NMS for all events of the corresponding type, using SNMPv2c. Requires that you have purchased, installed, and enabled the SNMP Notification Module.
- **Both**—Enables automatic delivery of email notification messages and automatic delivery of notification messages to your NMS for all events of the corresponding type. Activates the Recipient field, so that its email address value is editable; enter the email address that should receive notification messages. You can enter a unique recipient address for each of the notification event types. Requires that you have enabled SMTP and that you have purchased, installed, and enabled SNMP.

b. Do one of the following:

- To save all settings that you have defined for notifications and put them into effect immediately, click **Save**.
- To clear your selections, so that you can start over again, click **Reset**.

Understanding Event Types

Alarms and notifications use these event types:

Type	Description
All Notifiable Events	All of the following.
DMP Outages	Messages list all registered but inaccessible DMPs.
DMP Restarts	Messages list all registered DMPs that restarted recently.
DMP IP Conflicts	Messages list all registered DMPs with IP address conflicts. An address conflict occurs when a DHCP server assigns to one registered DMP the exact dynamic IP address that some other registered DMP used previously. If the DMP that previously used the address is no longer in active use, you should delete the record of it in DMM-DSM. If the DMP that previously used the address is one that should still be active, confirm that it is still running and still connected to the network, then restart it and confirm that its DHCP server does not assign IP addresses with expiration dates.
DMP IP Registrations	Messages list all newly registered DMPs.
Video Portal Outages	Messages list registered but inaccessible Video Portal appliances.
Video Portal Restarts	Messages list registered Video Portal appliances that restarted recently.

Type	Description
Deployment Failures	Messages list recently failed deployments of content for use on a Video Portal.
Deployment Successes	Messages list recently successful deployments of content for use on a Video Portal.
All Internal Events	Messages list all signals exchanged between and among the internal components of Cisco DMS. Most users attribute little or no significance to these events.

Related Topics

- Managing and Grouping Your DMPs, page 3-12

Viewing Appliance Processes and Restarting Appliances Remotely

Procedure

Step 1 Click the **Services** tab.

Step 2 To see which processes are running on a DMS appliance, do one of the following:

- For a DMM appliance, click **DMM Server**.
- For a Video Portal appliance, click **VP Server**.

Step 3 (Optional) To restart the appliance remotely, choose **Options > Restart Server**.

CHAPTER 3

Managing Digital Signage and Enterprise TV

Revised: March 17, 2008, OL-15762-02

Activation

Software feature modules for Cisco DMS are purchased and licensed separately. Features are hidden from all users until you purchase and install the required license to use them, and even then remain hidden from users whose privilege levels are low. To understand feature licenses and learn how to install them, see Managing Licenses for Features and Components of Cisco DMS, page 2-3. To learn how user access to features is restricted by the combination of licenses and user privilege levels, see Understanding User Roles in DMS-Admin, page 2-9. To learn which software feature modules are available for you to purchase, see http://www.cisco.com/go/dms.

- Overview, page 3-2
- Working with Dashboard Gauges for Digital Signage and Enterprise TV, page 3-3
- Configuring Your DMPs to Support Centralized Management, page 3-10
- Enabling the YPbPr (Component Video) Interface on DMPs, page 3-11
- Managing and Grouping Your DMPs, page 3-12
- Managing Your DMP Displays, page 3-24
- Configuring the Settings for Enterprise TV, page 3-32
- Working with Assets and Categories in Your Media Library, page 3-63
- Understanding the Two Types of Playlists for Digital Signage, page 3-71
- Working with Presentations, Templates, and Presentation Playlists for Digital Signage, page 3-71
- Using a Content Delivery System with DMPs, page 3-96
- Using Advanced Tasks, page 3-111
- Stopping All Running Events and Commands on DMPs, page 3-121
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- Planning for and Responding to Emergencies, page 3-124
- Scheduling Time Slots for Media and Events on DMPs, page 3-130
- Using Administrative Options, page 3-141
- Common Scenarios for Using DMM-DSM, page 3-149
- Integrating Third-party Applications with DMM-DSM, page 3-151

Overview

The separately-licensed DMM software modules for digital signage (DMM-DSM) and Enterprise TV (DMM-ETV) consolidate certain features and interoperate in other ways. The privileges that your Cisco DMS administrator has granted to your username determine which features and user interface (UI) elements you are permitted to see and use in these modules.

- Features of DMM-DSM provide a flexible environment in which to create, manage, and run a digital signage network. Simple but powerful design and publishing features help you to create content libraries and deliver presentations for digital signage, while centralized management features help you to manage a global IP network of DMP displays for any purpose in conference rooms, public venues, or executive offices. Used well, DMM-DSM can help your organization to enhance customer experience, entertain, and inform.
- Features of DMM-ETV help your organization to deliver video-on-demand and live broadcast TV channels over your global IP network of DMP displays in conference rooms, public venues, or executive offices. You can search the interactive on-screen menus and program guides, and then show live news, financial information, sales and marketing messages, educational or training content for classrooms, corporate communications, entertainment, or any other type of content that is suitable for your purpose. Alternatively, hospitality and healthcare providers might use enterprise TV features in support of in-room IPTV.

Tip The firmware for DMPs provides a web-based "craft interface" to manage one DMP in isolation. This software is called Digital Media Player Device Manager, or DMPDM. To learn about DMPDM, check the printed quick start guide that shipped in the product kit with your DMP or check the corresponding version of the *User Guide for DMPDM* on Cisco.com.

Related Topics

- Starting DMM-DSM, page 3-2
- Starting DMM-ETV, page 3-3
- Configuring User Rights and Permissions for Digital Signage and Enterprise TV, page 3-141

Starting DMM-DSM

Procedure

Step 1 If you just logged in to DMM or if you have been using features of a software module that is not related to digital signage, do one of the following:

- On the DMM dashboard, click **Digital Signage**.
- Choose **Digital Signage** from the global navigation.

Related Topics

- Configuring User Rights and Permissions for Digital Signage and Enterprise TV, page 3-141

Starting DMM-ETV

Procedure

Step 1 If you just logged in to DMM or if you have been using features of a software module that is not related to Enterprise TV, do one of the following:

- On the DMM dashboard, click **Enterprise TV**.
- Choose **Enterprise TV** from the global navigation.

The TV Channels tab is preselected by default. To understand elements on this tab, see UI Reference: Elements to Manage TV Channels, page 3-34.

Related Topics

- Configuring User Rights and Permissions for Digital Signage and Enterprise TV, page 3-141
- Configuring the Settings for Enterprise TV, page 3-32

Working with Dashboard Gauges for Digital Signage and Enterprise TV

DMM-DSM and DMM-ETV share a dashboard that shows various gauges. This shared dashboard summarizes and centralizes all features for monitoring DMPs, schedules, assets, and settings for content delivery. Gauge data is not updated in real time; you must refresh your browser to refresh the data.

If problems of any kind interfere with the data-collection processes that populate these gauges, they will show question marks in addition to the best data that is available.

Click the Dashboard tab to load this dashboard in your browser.

Tip Click + or – in the title bar for a gauge to expand or collapse it.

Drag a gauge by its title bar to rearrange the dashboard. All gauges are made wide that load on the left side of the dashboard, and all gauges are made narrow that load on the right side.

- Working with the Media and Schedules Gauge, page 3-3
- Understanding and Using the Digital Media Players Gauge, page 3-8
- Understanding and Using the Enterprise TV Gauge, page 3-9
- Understanding and Using the Settings Gauge, page 3-10

Working with the Media and Schedules Gauge

The Media and Schedules gauge represents differing types of data on its left and right sides.

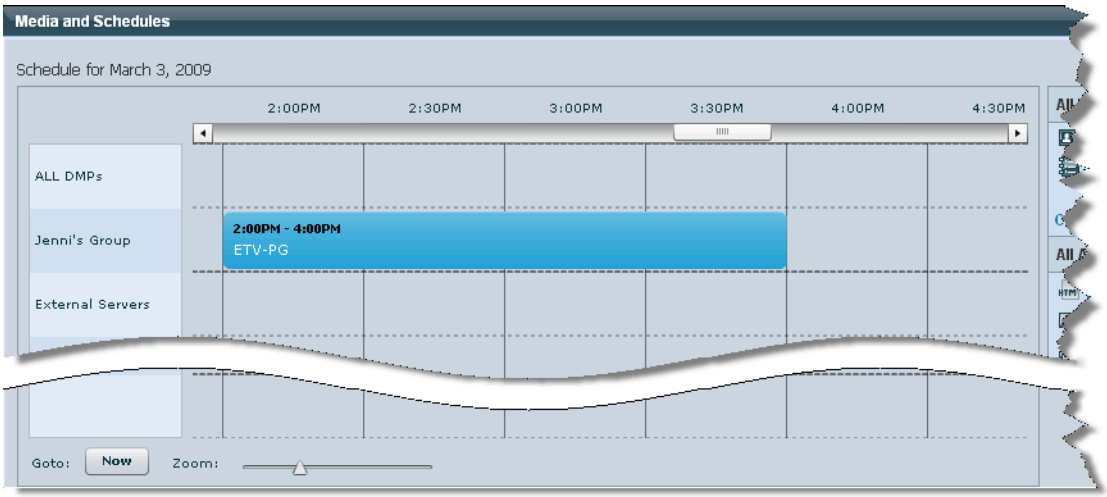
- Understanding the Left Side of the Media and Schedules Gauge, page 3-4
- Using the Left Side of the Media and Schedules Gauge, page 3-5

- UI Reference: Elements on the Right Side of the Media and Schedules Gauge, page 3-6
- Using the Right Side of the Media and Schedules Gauge, page 3-7

Understanding the Left Side of the Media and Schedules Gauge

The left side of the Media and Schedules gauge shows a read-only version of the deployment schedule that digital signage and Enterprise TV share. You can browse through the schedule timeline here and increase or decrease the magnification level for the range of hours that the gauge shows without your ever scrolling.

Figure 3-1 The Left Side of the Media and Schedules Gauge



This gauge describes only the midnight-to-midnight, 24-hour schedule for today. You can center it on the current hour and you can filter it to show only the events that are scheduled for a particular DMP group.

Related Topics

- Using the Left Side of the Media and Schedules Gauge, page 3-5
- Understanding and Using the Digital Media Players Gauge, page 3-8
- Understanding and Using the Enterprise TV Gauge, page 3-9
- Understanding and Using the Settings Gauge, page 3-10

Using the Left Side of the Media and Schedules Gauge

Before You Begin

You must be logged in an administrator or as a user who has at least read-only permissions for the schedule.

Procedure

Step 1 Do any of the following:

- Click **Now** to center the timeline on the current hour.
- Move the slider left or right to adjust magnification of the schedule timeline:
  - The far left position “zooms out” to show schedule magnification in 6-hour increments.
  - The far right position “zooms in” to show schedule magnification in 5-minute increments.
- If your browser window is small enough that it shows a horizontal scrollbar above the timeline, use this scrollbar to scroll the timeline left or right, where left is earlier in the day and right is later in the day.

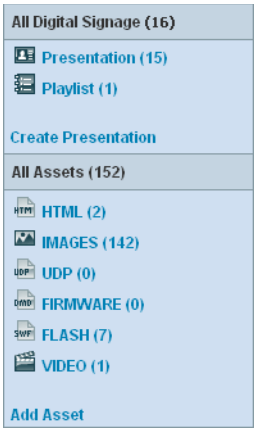
Related Topics

- Understanding the Left Side of the Media and Schedules Gauge, page 3-4
- Working with Future Deployments, page 3-132
- Understanding and Using the Digital Media Players Gauge, page 3-8
- Understanding and Using the Enterprise TV Gauge, page 3-9
- Understanding and Using the Settings Gauge, page 3-10

UI Reference: Elements on the Right Side of the Media and Schedules Gauge

The right side of the Media and Schedules gauge counts and categorizes assets of various types that are saved in your media library, and also counts the playlists and presentations that are saved. In addition, it shows 10 categorized shortcuts.

Figure 3-2 The Right Side of the Media and Schedules Gauge



Shortcut	Description
All Digital Signage area	
All Digital Signage	Shows the sum total count of how many assets, presentations, and playlists are saved.
Presentations	Counts the number of presentations that your organization has designed and saved in DMD. Also, a shortcut to Digital Signage > Presentations. The dashboard does not show this information to you unless you are logged in as an administrator or as a user with sufficient permissions to see presentations.
Playlists	Counts the number of ordinary playlists that your organization has populated and saved in DMM-DSM. Also, a shortcut to selecting Digital Signage > Playlists. The dashboard does not show this information to you unless you are logged in as an administrator or as a user with sufficient permissions to see playlists.
Create Presentation	A shortcut that starts Digital Media Designer. See Getting Started with DMD, page 3-74. The dashboard does not show this information to you unless you are logged in as an administrator or as a user with sufficient permissions to create presentations.

Shortcut	Description
All Assets area	
• HTML • IMAGES • UDP • FIRMWARE • FLASH • VIDEO	Counts how many assets of each type are saved in the digital signage and Enterprise TV share in common. Also, shortcuts that open your media library, filtering the result to describe assets of only the specified type. The dashboard does not show this information to you unless you are logged in as an administrator or as a user with sufficient permissions to see assets in the media library.
Add Asset	Opens the Add Asset dialog box, from which you can add assets to your media library. The dashboard does not show this information to you unless you are logged in as an administrator or as a user with sufficient permissions to add assets to at least one category within the media library.

Related Topics

- Using the Right Side of the Media and Schedules Gauge, page 3-7
- Understanding and Using the Digital Media Players Gauge, page 3-8
- Understanding and Using the Enterprise TV Gauge, page 3-9
- Understanding and Using the Settings Gauge, page 3-10

Using the Right Side of the Media and Schedules Gauge

Procedure

Step 1 Do any of the following:

- Click **Presentation** to go directly to the page at Digital Signage > Presentations.
- Click **Playlist** to go directly to the page at Digital Signage > Playlist.
- Click **Create Presentation** to start Digital Media Designer.
- Click **HTML** to open the media library, filtering the result to describe only HTML URLs.
- Click **IMAGES** to open the media library, filtering the result to describe only image files.
- Click **UDP** to open the media library, filtering the result to describe only UDP URLs.
- Click **FIRMWARE** to open the media library, filtering the result to describe only DMP firmware.
- Click **FLASH** to open the media library, filtering the result to describe only SWF files.
- Click **VIDEO** to open the media library, filtering the result to describe only MPEG videos.

Related Topics

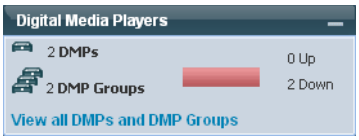
- UI Reference: Elements on the Right Side of the Media and Schedules Gauge, page 3-6
- Understanding and Using the Digital Media Players Gauge, page 3-8
- Understanding and Using the Enterprise TV Gauge, page 3-9
- Understanding and Using the Settings Gauge, page 3-10

Understanding and Using the Digital Media Players Gauge

The Digital Media Players gauge shows a colored bar chart to summarize the health of registered DMPs in your network and counts the number of configured DMP groups.

- The color green represents registered DMPs that are reachable.
- The color red represents registered DMPs that are unreachable. A registered DMP might become unavailable if it receives a new dynamic IP address from the DHCP server at its deployment site. In this case, you should restart the DMP or edit the IP address record that DMM-DSM maintains for the DMP.

Figure 3-3 The Digital Media Players Gauge



Tip The interval between DMP polling cycles is 5 minutes, so any newly added DMP might report temporarily that it is unavailable; wait a few minutes if this happens to you, and then check again. If you notice that any of your DMPs are unreachable, see *FAQs and Troubleshooting Guide for Cisco Digital Media System 4.x and 5.x* on Cisco.com.

To check the free space on the SD memory card in a DMP, choose **Digital Media Players > DMP Manager**, and then—in the row that describes that DMP—check the value in the Internal Storage MB. (Total/Free) column. Alternatively, log in to the local instance of DMPDM on that DMP, and then click **Internal Storage**.

Note DHCP servers at your deployment sites should be configured to expire leased IP addresses for DMPs only when DMPs are restarted. A registered DMP might become unavailable for centralized management if it receives a new dynamic IP address from the DHCP server at its deployment site. In this case, you should restart the DMP or edit the IP address record that DMM-DSM maintains for the DMP.

Before You Begin

You must be logged in as an administrator or as a user with sufficient permissions to see at least one DMP or one DMP group.

Procedure

Step 1 Click **View All DMPs and DMP Groups** to learn more.

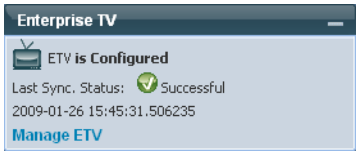
Related Topics

- Managing and Grouping Your DMPs, page 3-12
- Working with the Media and Schedules Gauge, page 3-3
- Understanding and Using the Enterprise TV Gauge, page 3-9
- Understanding and Using the Settings Gauge, page 3-10

Understanding and Using the Enterprise TV Gauge

The Enterprise TV gauge shows whether Enterprise TV is configured and tells you whether the most recent synchronization succeeded with your preferred EPG provider.

Figure 3-4 The Enterprise TV Gauge



Procedure

Step 1 Click **Manage ETV** to learn more.

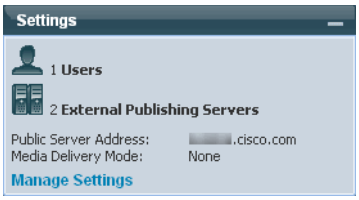
Related Topics

- Configuring the Settings for Enterprise TV, page 3-32
- Working with the Media and Schedules Gauge, page 3-3
- Understanding and Using the Digital Media Players Gauge, page 3-8
- Understanding and Using the Settings Gauge, page 3-10

Understanding and Using the Settings Gauge

The Settings gauge summarizes the most basic attributes of configured settings for your DMM appliance and your content delivery network, which might use ACNS or WAAS.

Figure 3-5 The Settings Gauge



Procedure

Step 1 Click **Manage Settings** to learn more.

Related Topics

- Working with the Media and Schedules Gauge, page 3-3
- Understanding and Using the Digital Media Players Gauge, page 3-8
- Understanding and Using the Enterprise TV Gauge, page 3-9
- Configuring DMM-DSM Server Settings, page 3-146
- Configuring the Settings to Use ACNS or WAAS, page 3-147

Configuring Your DMPs to Support Centralized Management

You must configure your DMPs to recognize the authority of your DMM appliance, so that you can manage them centrally in DMM-DSM. This process occurs automatically when you autoregister DMPs, but if autoregistration is somehow not suitable, such as for testing purposes, you can also perform the required steps manually.

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

Caution 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.

Caution The DMPDM login username by default is **admin** and the password by default is **default**. However, we urged you to change both of these when you set up your DMPs, because they are well known and constitute a security vulnerability in your network. To learn how to change the login credentials if you skipped that essential step during setup, see the quick start guide on Cisco.com for your DMP model type.

Procedure

Step 1 Point your browser to the IP address of a DMP that you will manage centrally.

Step 2 At the DMPDM login prompt, enter the username and the password that you configured for the DMP.

Note All DMPs that you manage centrally in DMM-DSM must share one identical set of login credentials for DMPDM. To learn how to reconfigure your DMPs so that they all share identical credentials, see the quick start guide for your DMP model type on Cisco.com.

Step 3 Click **Centralized Management** in the Settings area, and then enter the required values:

- DMM Appliance IP Address—The IP address of your DMM appliance.
- DMM-DSM Server Timeout (in seconds)—The maximum number of seconds that your DMP should wait for a response from your DMM appliance.

Step 4 Click **Apply** to confirm your entries and to implement them until you change them or until you restart the DMP.

Step 5 Click **Save Configuration** in the Administration area to make your configuration changes permanent even after you restart your DMP, and then (after you see the Save Configuration page) click **Save**.

Step 6 Click **Restart DMP**, and then (after you see the Restart DMP page) click **Restart**.

Related Topics

- Managing and Grouping Your DMPs, page 3-12
- Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15
- Adding and Editing One DMP Manually, page 3-19

Enabling the YPbPr (Component Video) Interface on DMPs

To take advantage of the latest features, options, and modern technologies, most digital signage environments use digital displays. However, some networks might include legacy devices and technologies, including analog displays. If you use analog displays or have any other reason to use YPbPr component video cables when you connect your DMPs to their displays (and if your DMPs use firmware release 5.0.0 or 5.0.1) you must first enable the YPbPr interface on your DMPs.

Tip This procedure is not necessary for DMPs that use firmware release 5.0.2, 5.0.3, or 5.1, where DMPDM includes Component as a selectable video signal type.

Procedure

Step 1 Choose **Digital Media Players > Advanced Tasks**, and then click the **System Tasks** row in the Application Types list.

Step 2 Click **Add New Application**.

Step 3 After the page is refreshed, choose the required options and enter the required values for this task:

a. Enter **DMP_Enable_YPbPr_(Component_Video)** in the Name field.

b. Enter **Enable DMP support for Component Video output on the YPbPr** in the Description field.

c. Choose **Set** from the Request Type list.

d. Enter **sigma.conn=6&sigma.tvst=91&sigma.cspc=1&mib.save=1** in the Request field.

Step 4 Click **Submit** to save your selections.

Step 5 To deploy to any of your DMPs the "DMP_Enable_YPbPr_(Component_Video)" task that you defined and saved, see Scheduling Time Slots for Media and Events on DMPs, page 3-130.

Managing and Grouping Your DMPs

Features available to you on the DMP Manager page (at Digital Media Players > DMP Manager) can help you to:

- Organize your DMPs in groups.
- Manage DMPs collectively instead of managing only one DMP at a time.
- Deploy assets or instructions to DMPs immediately.
- Manage the DMP displays in your network.

When you choose options anywhere on the DMP Manager page, it is updated automatically to show the options and features that are relevant to your selection.

Table 3-1 Tasks That You Can Perform on the DMP Manager Page

Task	To Learn More
DMP Group Management Tasks	
View the group hierarchy and collapse or expand any of its levels	• Click a group in the object selector to load a list of its member DMPs in the DMP table. • Click a Closed Group icon to expand its level in the object selector. • Click an Opened Group icon to collapse its level in the object selector.
Add a new group Edit an existing group	See: • Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15. • Understanding the Effect of Nesting One DMP Group Inside Another, page 3-18.

Table 3-1 Tasks That You Can Perform on the DMP Manager Page (continued)

Task	To Learn More
Populate a group with DMPs	See: • If automatically, in a production network: Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15. • If manually, in a lab: Adding DMPs Manually to DMP Groups, page 3-21.
Delete a group	See Deleting DMP Groups, page 3-18.
DMP Management Tasks	
Add a DMP	See Adding and Editing One DMP Manually, page 3-19.
Edit a DMP	
Delete a DMP	See Deleting DMPs Manually from Your Device Inventory, page 3-20.
Send assets or instructions immediately to DMPs that you choose	See Using the Actions List to Deploy Assets or Instructions Immediately to DMPs, page 3-132.
Associate DMPs with groups	See: • If automatically, in a production network: Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15. • If manually, in a lab: Adding DMPs Manually to DMP Groups, page 3-21.
Remove DMPs from groups	See Removing DMPs Manually from DMP Groups, page 3-22.
Filter which DMPs are described in the DMP List table	See Filtering the DMP List Table, page 3-23.
DMP Display Management Tasks	
Manage certain DMP displays manufactured by Cisco, NEC, and DMTech	See Managing DMP Displays That Are Attached to Your Centrally-Managed DMPs, page 3-25.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14
- Understanding HTTP Proxy Implications for DMPs, page 3-24

UI Reference: Top-Level Settings to Manage DMPs and DMP Groups

Navigation Path

Digital Media Players > DMP Manager

Table 3-2 Elements for Managing DMPs and DMP Groups

Element	Icon and Description	
DMP Groups		
A hierarchical tree (an object selector) of DMP groups, subgroups, and DMPs. Here, you can add or remove group assignments for registered DMPs, create new groups, edit existing groups, and choose which DMPs the DMP List table should describe.		
Add New DMP Group		Shows the Add New DMP Group pane.
Edit DMP Group		Shows the Edit DMP Group pane, where you can edit attributes of the group that you highlighted.
Delete DMP Group		Deletes the group that you highlighted.
Opened Group		Shows the list of group members until you click to hide them.
Closed Group		Hides the list of group members until you click to show them.
DMP		A DMP that you assigned to the relevant parent group.
DMP List		
All DMPs at (or below) the highlighted level in the DMP Groups object selector, or the DMPs at this level that match your criteria for filtering this list. To see every registered DMP in your network, click the group that represents the root level. (By default, its name is "All DMPs" but this name is editable.) If there are more DMPs than there are rows, the list might straddle multiple pages. In this case, use pagination controls above the table to move from one page to another.		
Actions	List from which to select any instruction or asset that you might send to DMPs.	
Add New DMP		Shows the Add New DMP pane.
Edit DMP		Shows the Edit DMP pane.
Delete DMP		Deletes the DMP that you highlighted.
Control TV		Opens the LCD Control dialog box.
Assign DMP to Group		Creates an association between at least one DMP and at least one group.
Remove DMP from Group		Severs the association between at least one DMP and at least one group.
Filter	A method to redraw the DMP List table, so that it includes only the DMPs that match your filter.	
Display Number	The maximum number of rows that the table should show per page if it straddles multiple pages.	
Status	Says whether a DMP is reachable. • A green icon (✔) tells you that the DMP is connected to a power source, uses a known IP address, and is reachable. • A red icon (✖) tells you that the DMP is unreachable.	
Name	A unique and human-readable name that you entered or that DMM-DSM chose; If DMM-DSM chose the name, it is either the DMP IP address or MAC address.	
IP	The public IP address at which the DMP receives instructions and data from DMM-DSM.	
Version	The release number for the installed firmware version on the DMP.	

Table 3-2 Elements for Managing DMPs and DMP Groups (continued)

Element	Icon and Description
Description	The description that you entered.
Internal Storage MB. (Total/Free)	Measures the total storage capacity of the internal flash drive, and then measures the available capacity.
External Storage MB. (Total/Free)	Measures the total storage capacity of the external USB drive, if the DMP is connected to one, and then measures the available capacity.
WAAS Status	Says that a DMP has mounted a CIFS share, or does not say anything.

Related Topics

- Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15
- Deleting DMP Groups, page 3-18
- Using the Actions List to Deploy Assets or Instructions Immediately to DMPs, page 3-132
- Adding and Editing One DMP Manually, page 3-19
- Deleting DMPs Manually from Your Device Inventory, page 3-20
- Managing DMP Displays That Are Attached to Your Centrally-Managed DMPs, page 3-25
- Adding DMPs Manually to DMP Groups, page 3-21
- Removing DMPs Manually from DMP Groups, page 3-22
- Filtering the DMP List Table, page 3-23
- Configuring the Settings to Use ACNS or WAAS, page 3-147

Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them

Note DMM-DSM uses TCP port 7777 to communicate with DMPs. This port is open on DMPs and you cannot close it.

When you create or edit a DMP group, the least that you must do is specify the group name and description. In addition, you can populate the group automatically with all of the DMPs in any NMAP address range that you specify, or you can manually add DMPs to a group.

Before You Begin

- The DMPs in your digital signage network must all share identical user credentials for their DMP Web Account and identical user credentials for their DMP Service Account. Otherwise, autoregistration cannot occur. To learn more, see the quick start guide on Cisco.com for your DMP model type.
- Verify that the “Enable TAC Troubleshooting Access” option in DMPDM is not disabled. (It is enabled by default.) If you disable it, autoregistration cannot occur.
- Verify that the routers, switches, and firewalls between your DMM appliance and the CIDR address range for autodiscovery allow TCP port 7777 to send and receive packets, and that they allow ICMP traffic to pass from your DMM appliance to your DMPs. If any of this traffic is blocked anywhere along its route, autoregistration cannot occur.

- If you have more than one DMM appliance, be careful to autoregister only those DMPs that you are not already managing centrally from another instance of DMM-DSM. Otherwise, you might temporarily disrupt the deployment of presentations and their assets in your digital signage network. When you autoregister DMPs that are not currently registered in DMP database on your DMM appliance, they restart immediately even if they are already centrally managed by a different DMM appliance than the one that you are using, and even if they are showing presentations on their attached DMP displays.
- We recommend that you autoregister DMPs after normal business hours. Autoregistration of 5,000 DMPs takes approximately 4 minutes in a fast network and does not use polling.

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Do either of the following:

- Click the **Add New DMP Group** icon above the DMP Groups object selector.
- Click the name of a DMP group to choose it in the object selector, and then click the **Edit DMP Group** icon above the object selector.

Step 3 Enter a name and a description for the group.

Step 4 Define the network ranges from which to autoregister DMPs that should be added as members of this DMP group. Alternatively, if you will not autoregister DMPs now, you can skip this step.

Tip DMM-DSM runs each autodiscovery job one time. It does not look continuously in the specified network range for DMPs that you might add in the future. If you plan to add DMPs to your network continuously, you can schedule an autodiscovery event to recur as often as necessary.

Step 5 Click **Submit** to save your work. You can save a named group for use in the future, even if you have not yet assigned any DMPs to it.

Related Topics

- Understanding the Sequence of Operations for DMP Autoregistration, page 3-16
- UI Reference: Settings to Add or Edit a DMP Group and Autoregister DMPs, page 3-17

Understanding the Sequence of Operations for DMP Autoregistration

Autoregistration finds every DMP in the subnets that you specify and then configures these DMPs to know and trust the IP address for your DMM appliance. It restarts the DMPs and then registers them in DMM-DSM for centralized management. Autoregistration operations follow this sequence:

1. DMM-DSM scans every device in the specified address range, looking for devices where TCP port 7777 is open.
2. DMM-DSM confirms which of the devices with port 7777 open are DMPs.
3. DMPs receive information about your DMM server, and are then instructed to restart.

4. Upon restarting, DMPs transmit updated information about themselves to DMM-DSM and set their own status to "Up."
5. DMM-DSM generates new database records for all DMPs that are newly autoregistered, assigns these DMPs to any DMP groups corresponding to the address range that you entered, and assigns them to the "All DMPs" group.

Related Topics

- Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15
- UI Reference: Settings to Add or Edit a DMP Group and Autoregister DMPs, page 3-17

UI Reference: Settings to Add or Edit a DMP Group and Autoregister DMPs

Navigation Path

Digital Media Players > DMP Manager

Table 3-3 Elements to Add and Edit DMP Groups

Element	Icon and Description
These elements load when you click the Add New DMP Group or Edit DMP Group icon above the DMP Groups pane.	
Name	A unique and human-readable name for the group.
Description	A brief description of the group and its purpose.
Add New Range	IP address subnet ranges in which to find and autoregister DMPs. • The netmask typically is /24. • To find every DMP in a subnet, use 0 (zero) as the only digit in the fourth quad, such as 192.0.2.0/24. • To find one DMP whose address is already known to you, enter its IP address and the netmask but use a comma instead of the fourth dot, such as 192.0.2,50/24. • To find all of the DMPs in a narrow range of addresses, substitute a range for the fourth quad, such as 192.0.2.1-254. • The address range can span one subnet or multiple subnets. **Note** You can schedule multiple DMP autoregistration operations to run simultaneously if they all search the same one subnet. If the DMP autoregistration operations that you configure do not all search the same one subnet, you should not schedule them to run simultaneously. If you do, only the first such operation will run and DMM-DSM will not show any error message to explain why the other autoregistration operations failed to find any DMPs. If you must run DMP autoregistration tasks that search different subnets, schedule a 35-minute interval between the start time for one autoregistration and the start time for the next autoregistration. In a very large network that contains thousands of DMPs, the required interval might be longer than 35 minutes.
Delete a Range	Deletes the range that you highlighted.
Automatic Grouping Ranges	Shows a list of all the defined NMAP address ranges. Click a range to edit it.
Range (CIDR)	The field where you edit one CIDR address range at a time.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14
- Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15
- Understanding the Sequence of Operations for DMP Autoregistration, page 3-16

Understanding the Effect of Nesting One DMP Group Inside Another

We recommend that you create DMP groups to organize your DMPs according to characteristics that they have in common, such as where or how you will use them, according to whatever logic works best for you. For example, the logical basis for your DMP groups might be geographic (by state, province, or metropolitan area) or corporate (by product team, sales region, time zone, primary spoken language, or type of facility), as in this illustration:

One DMP group can contain another and each choice that you make for centralized management propagates from parent (DMP group), to child (DMP subgroup *or* DMP), to grandchild (DMP). There is no maximum number of levels that you can add to the hierarchy, but a simpler organization is more scalable than an unreasonably complex one would be.

We recommend that you do not assign any DMP to the root level in the hierarchy, due to the complexity of management, but we do not prevent you from doing this.

Deleting DMP Groups

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Navigate in the DMP Groups object selector, expanding its levels as necessary until you find in its hierarchy the DMP group to be deleted.

Step 3 Click the name of this DMP group in the object selector.

Step 4 Click **Delete DMP Group**, above the object selector.

Step 5 Click **Submit** to delete the group. Alternatively, click **Cancel** to stop this deletion.

Related Topics

- Removing DMPs Manually from DMP Groups, page 3-22
- Deleting DMPs Manually from Your Device Inventory, page 3-20

UI Reference: Elements to Delete a DMP Group

Navigation Path

Digital Media Players > DMP Manager

Table 3-4 Element to Delete DMP Groups

Element	Icon and Description	
This element loads above the DMP Groups object selector.		
Delete DMP Group		Deletes the group that you highlighted.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14

Adding and Editing One DMP Manually

Caution We recommend that you **never use this method** to register a DMP manually, except in a lab for testing purposes. This method is neither suitable nor scalable in a production network.

- The Version column value is blank for this DMP at Digital Media Players > DMP Manager.
- When you click Edit DMP, you cannot manually enter any Version value for this DMP.
- When you choose Version from the Filter list at Digital Media Players > DMP Manager, this DMP is always excluded from the filtered result of your query.

DMM-DSM includes a feature to autoregister your DMPs so that you do not have to register each DMP manually. Nonetheless, you can register a DMP manually for testing purposes.

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Do either of the following:

- Click the **Add New DMP** icon above the DMP List table.
- Click the name of a DMP group to choose it in the object selector, and then click the **Edit DMP** icon above the DMP List table.

Step 3 Choose options and enter required values for the DMP.

Step 4 Click **Submit** to save your work. Alternatively, click **Clear** to discard your work.

Step 5 (Optional) Add the DMP to a DMP group.

Related Topics

- UI Reference: Elements to Add or Edit a DMP, page 3-20
- Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15
- Adding DMPs Manually to DMP Groups, page 3-21

UI Reference: Elements to Add or Edit a DMP

Navigation Path

Digital Media Players > DMP Manager

Table 3-5 Elements to Add and Edit One DMP

Element	Description
These elements load when you click the ***Add New DMP*** *or* ***Edit DMP*** *icon above the DMP List table.*	
Name	A unique and human-readable name for the DMP.
IP Address	The public IP address that receives instructions and data from DMM-DSM.
MAC Address	The MAC address that the DMP NIC uses.
Description	Optional, brief description of the DMP, its deployment site, or anything that is relevant or meaningful to you.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14

Deleting DMPs Manually from Your Device Inventory

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Do either of the following:

- Navigate in the DMP Groups object selector, expanding its levels as necessary until you find in its hierarchy the parent group for a DMP that should be deleted. Then, click the name of this DMP group in the object selector.
- Choose an option from the Filter list to restrict which DMPs the DMP List table describes.

Step 3 (Optional) If DMP data in the table straddles multiple pages, use pagination controls above the table to move between pages.

Step 4 Check the check box for the DMP to be deleted.

Step 5 Click **Delete DMP**, above the DMP List table.

Step 6 Click **Submit** to save your work. Alternatively, click **Clear** to discard your work.

Related Topics

- UI Reference: Elements to Delete a DMP, page 3-21
- Filtering the DMP List Table, page 3-23

UI Reference: Elements to Delete a DMP

Navigation Path

Digital Media Players > DMP Manager

Table 3-6 Elements to Delete One DMP

Element	Icon and Description	
This element loads above the DMP List table.		
Delete DMP		Deletes the DMP that you highlighted.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14
- Deleting DMPs Manually from Your Device Inventory, page 3-20

Adding DMPs Manually to DMP Groups

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Click **Assign DMP to Group**, above the DMP List table.

Step 3 Click a DMP in the DMP List table to choose it. Alternatively, use check boxes in the table to choose multiple DMPs.

Step 4 Navigate in the DMP Groups object selector, expanding its levels as necessary until you find in its hierarchy the group that should contain the DMP.

Step 5 Click the name of the DMP group in the object selector.

Step 6 Click **Assign DMP to Group** again.

Related Topics

- UI Reference: Elements to Add DMPs Manually to a DMP Group, page 3-22

UI Reference: Elements to Add DMPs Manually to a DMP Group

Navigation Path

Digital Media Players > DMP Manager

Table 3-7 Elements to Associate DMPs with a DMP Group

Element	Icon and Description	
This element loads above the DMP List table.		
Assign DMP to Group		Creates an association between at least one DMP and at least one group.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14
- Adding DMPs Manually to DMP Groups, page 3-21

Removing DMPs Manually from DMP Groups

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Navigate in the DMP Groups object selector, expanding its levels as necessary until you find in its hierarchy the group that should no longer include a DMP.

Step 3 Click the name of this DMP group in the object selector.

Step 4 Click **Remove DMP from Group**, above the DMP List table.

Step 5 Click a DMP in the DMP List table to choose it. Alternatively, use check boxes in the table to choose multiple DMPs.

Step 6 In the object selector, click the DMP group from which to remove the selected DMPs.

Step 7 Click **Remove DMP from Group** again.

Related Topics

- UI Reference: Elements to Remove a DMP from a DMP Group, page 3-23

UI Reference: Elements to Remove a DMP from a DMP Group

Navigation Path

Digital Media Players > DMP Manager

Table 3-8 Elements to Remove a DMP from a DMP Group

Element	Icon and Description
This element loads above the DMP List table.	
Remove DMP from Group	Deletes the association between at least one DMP and at least one group.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14
- Removing DMPs Manually from DMP Groups, page 3-22

Filtering the DMP List Table

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Click the entry in the DMP Group object selector for a group whose list of member DMPs you will filter.

Step 3 Choose an option from the Filter list, above the DMP List table:

- **Status**—Select **Up** or **Down** to limit matches by DMP availability.
- **Name**—Enter the text string to limit matches by DMP name.
- **IP**—Enter any part of the "dotted quad" to limit matches by DMP IP address.
- **MAC**—Enter the text string to limit matches by DMP MAC address.
- **Description**—Enter the text string to limit matches by DMP descriptions.
- **Version**—Enter the text string to limit matches by DMP firmware release version number.

Step 4 (Optional) Enter a number in the Display # field to specify how many rows of data the DMP List table should load per page.

When there are more DMPs than there are rows per page, the table straddles multiple pages.

Step 5 (Optional) If DMP data in the table straddles multiple pages, use pagination controls above the table to move between pages.

Step 6 Click **Go**.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14

Understanding HTTP Proxy Implications for DMPs

Important considerations apply to your digital signage network if any of your DMPs uses an HTTP proxy server. It is unusual and not scalable to manage many DMPs that share one HTTP proxy server. We recommend that your DMPs *should not* use HTTP proxy servers.

- If your DMPs must use proxied connections, we recommend that you configure them to use Web Cache Communication Protocol (WCCP) instead of using a proxy server. WCCP reroutes HTTP requests transparently. To learn how to use WCCP if you do not already know how, see Cisco.com.
- To configure one DMP to use one proxy server, use DMPDM, not DMM-DSM. See the "Adjusting Basic Network Settings" topic in *User Guide for Cisco Digital Media Player Device Manager 5.1* on Cisco.com.

Related Topics

- Configuring Multiple DMPs to Share One HTTP Proxy Server, page 3-24

Configuring Multiple DMPs to Share One HTTP Proxy Server

You can configure multiple DMPs to share one HTTP proxy server, even though we recommend that you do not.

Procedure

Step 1 Choose **Digital Media Players > Advanced Tasks**.

Step 2 Click **System Tasks** in the list of defined tasks, and then click **Add New Application**.

Step 3 Enter a name and description.

Step 4 Choose **Set** from the Request Type list and use this syntax in the Request field:
`init.BROWSER_PROXY=`*<on|off>*`&init.BROWSER_PROXY_IP=`*<proxy_server_IP_address>*`&init.BROWSER_PROXY_PORT=`*<proxy_server_logical_port>*.

For example, if the proxy server uses 192.168.12.12 as its IP address and delivers proxy services through port 5678, the Request string would look like this: `init.BROWSER_PROXY=`**`on`**`&init.BROWSER_PROXY_IP=192.168.12.12&init.BROWSER_PROXY_PORT=5678&mib.save=1&mng.reboot=1`.

To remove that example proxy, you would choose **Set** from the Request type list, and then enter this Request string: `init.BROWSER_PROXY_IP=&init.BROWSER_PROXY_PORT=&init.BROWSER_PROXY=`**`off`**`&mib.save=1&mng.reboot=1`.

Related Topics

- Understanding HTTP Proxy Implications for DMPs, page 3-24

Managing Your DMP Displays

- Managing DMP Displays That Are Attached to Your Centrally-Managed DMPs, page 3-25
- Using RS-232 Commands to Manage Cisco LCD Professional Series Displays, page 3-29

Managing DMP Displays That Are Attached to Your Centrally-Managed DMPs

Before You Begin

- Prepare any Cisco LCD Professional Series displays for centralized management through a DVI or HDMI signal cable.
- Connect your DMPs to your DMP displays with signal cables that can relay RS-232 commands.
- Use the system task that activates RS-232 command access for the brand of DMP display to be managed centrally.
  - If the DMP display brand is Cisco or NEC, the system task to use is: **RS-232: Control supported, non-DMTech displays**.
  - If the DMP display brand is DMTech, the system task to use is: **RS-232: Control DMTech displays**.

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Do either of the following:

- Navigate in the DMP Groups object selector, expanding its levels as necessary until you find in its hierarchy the parent group for a DMP whose attached DMP display should receive instructions. Then, click the name of this DMP group in the object selector.
- Choose an option from the Filter list to restrict which DMPs the DMP List table describes.

Step 3 (Optional) If DMP data in the table straddles multiple pages, use pagination controls above the table to move between pages.

Step 4 Click a DMP in the DMP List table to choose it. Alternatively, use check boxes in the table to choose multiple DMPs that are all attached to identical DMP displays.

Step 5 Click **Control TV**, above the DMP List table.

Step 6 Use options in the LCD Control dialog box to configure these DMP displays.

Step 7 Click **Submit** to save your work in the LCD Control popup window. Alternatively, click **Cancel** to discard your work.

Related Topics

- UI Reference: Elements to Manage DMP Displays, page 3-26
- Preparing a Cisco LCD Display for Centralized Management Through DVI, page 3-29

UI Reference: Elements to Manage DMP Displays

Navigation Path

Digital Media Players > DMP Manager

Table 3-9 Elements to Manage a DMP Display

Element	Icon and Description	
This element loads above the DMP List table.		
Control TV		Opens the LCD Control dialog box, where you can configure parameters for a DMP display that Cisco, NEC, or DMTech manufactured.

UI Elements in the LCD Control Dialog Box

TV Type	A list from which to choose the manufacturer and the model type for a DMP display that you will manage. Other elements in the LCD Control dialog box do not load until you choose an option from this list, and vary according to the capabilities of whichever manufacturer and model you choose. The LCD display types that we support for centralized management are: • CISCO_40N • CISCO_52S • DMTECH • NEC_3210 • NEC_4010 • NEC_4610 • NEC_5710
Contrast	Choose or enter a contrast value from 0 to 100, and then check the corresponding **Apply** check box.
Brightness	Choose or enter a brightness value in the range from 0 to 100, and then check the corresponding **Apply** check box.
Sharpness	Choose or enter a sharpness value in the range from 0 to 100, and then check the corresponding **Apply** check box.
Color	Choose or enter a color value in the range from 0 to 100, and then check the corresponding **Apply** check box.
Tint	Choose or enter a tint value in the range from 0 to 100, and then check the corresponding **Apply** check box.
TV Channel	Choose or enter the analog television signal frequency for a channel from 0 to 99, and then check the corresponding **Apply** check box.
Audio Volume	Choose or enter a volume level in the range from 0 to 100, and then check the corresponding **Apply** check box.
Mute	Choose **On** to mute audio from the DMP display speakers, or choose **Off** to unmute audio.

Table 3-9 Elements to Manage a DMP Display (continued)

Input	A list from which to choose the video signal input type. Options vary according to the manufacturer and display model.		
	• CISCO_40N • CISCO_52S	• PC • BNC • DVI	• AV • Component • HDMI
	DMTECH	• TV • RGB • Video 1 • Video 2 • Video 3 • S-Video	• None (DVD) • Component • PC • HDMI • None (DVBT)
	• NEC_3210 • NEC_4010 • NEC_4610 • NEC_5710	• RGB1 (DVI-D) • RGB2 (D-SUB) • RGB3 (BNC)	• DVD/HD • VIDEO (Composite) • S-Video
Power	Choose **On** to turn the DMP display on, or choose **Off**.		

Table 3-9 Elements to Manage a DMP Display (continued)

Safety Lock	**Note** When you use DMM-DSM to lock the remote control unit and the front panel controls for your LCD Professional Series display, you cannot then use the remote control to unlock them. The only way to unlock them in this case is to switch the Safety Lock, Remote Control Lock, and Panel Lock toggles *all* to **Off** in DMM-DSM. The option that you choose from this list clears your choice, if any, in the Remote Control Lock and Panel Lock lists. You can choose only one option among all three of these lists, which are hidden from you unless you chose CISCO_40N or CISCO_52S from the TV Type list. • Choose **On** to lock the front panel controls and the remote control buttons for your LCD Professional Series display. When anyone at its physical location presses buttons on the remote control or uses controls on the display front panel while they are locked, an on-screen message explains that the lock is engaged. There is no effect when anyone at its physical location uses the remote control unit to enter the safety lock PIN. • Choose **Off** to unlock these controls. It does not matter how you locked them. When you use DMM-DSM to remotely unlock the remote control unit and controls on the display front panel, it is not necessary to enter the safety lock PIN.
Remote Control Lock	**Note** When you use DMM-DSM to lock the remote control unit for your LCD Professional Series display, you cannot then use the remote control to unlock itself. The only way to unlock the remote control in this case is to switch the Safety Lock and Remote Control Lock toggles both to **Off** in DMM-DSM. The option that you choose from this list clears your choice, if any, in the Safety Lock and Panel Lock lists. You can choose only one option among all three of these lists, which are hidden from you unless you chose CISCO_40N or CISCO_52S from the TV Type list. • Choose **On** to lock the remote control unit for your LCD Professional Series display. When anyone at its physical location presses buttons on the remote control while it are locked, an on-screen message explains that the lock is engaged. There is no effect when anyone at its physical location uses the remote control unit to enter the safety lock PIN. • Choose **Off** to unlock the remote control. It does not matter how you locked it. When you use DMM-DSM to remotely unlock a remote control, it is not necessary to enter the safety lock PIN. To learn more, see *User Guide for Cisco LCD Professional Series Displays* on Cisco.com.

Table 3-9 Elements to Manage a DMP Display (continued)

Panel Lock	**Note** When you use DMM-DSM to lock controls on the front panel for your LCD Professional Series display, you cannot use the remote control to unlock them. The only way to unlock the front panel controls in this case is to switch the Safety Lock and Panel Lock toggles both to **Off** in DMM-DSM. The option that you choose from this list clears your choice, if any, in the Safety Lock and Remote Control Lock lists. You can choose only one option among all three of these lists, which are hidden from you unless you chose CISCO_40N or CISCO_52S from the TV Type list. • Choose **On** to lock the front panel controls for your LCD Professional Series display. When anyone at its physical location uses controls on the display front panel while they are locked, an on-screen message explains that the lock is engaged. • Choose **Off** to unlock the front panel controls. It does not matter how you locked them. When you use DMM-DSM to remotely unlock these controls, it is not necessary to enter the safety lock PIN. **Tip** Alternatively, anyone at its physical location can use the remote control unit to unlock front panel controls on your LCD Professional Series Display, by entering the safety lock PIN correctly when prompted to enter it. To learn more, see *User Guide for Cisco LCD Professional Series Displays* on Cisco.com.

Related Topics

- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14

Using RS-232 Commands to Manage Cisco LCD Professional Series Displays

- Preparing a Cisco LCD Display for Centralized Management Through DVI, page 3-29
- RS-232 Command Reference for Cisco LCD Displays, page 3-30

Preparing a Cisco LCD Display for Centralized Management Through DVI

When you use an HDMI cable or a DVI cable to connect your DMP to an LCD display model from the Cisco LCD Professional Series, you can use DMM-DSM to centrally manage the LCD display.

When HDMI is the connection type from a DMP to a Professional Series display, centralized management from DMM works immediately, without any prerequisites. However, when DVI is the connection type, you must complete a simple task at the physical installation site for your LCD display before you can start to centrally manage it.

Before You Begin

- Use the system task that activates RS-232 command access for your Professional Series display. The system task to use is: **RS-232: Control supported, non-DMTech displays**.

Procedure

Step 1 Do either of the following:

- On the remote control for your LCD display, press **Menu**.
- On the front panel of your LCD display, press **Menu**.

Step 2 Choose **Input > Source List > DVI**, and then press **Enter**.

Step 3 Choose **Input > Edit Name > DVI > HD STB**, and then press **Enter**.

Related Topics

- RS-232 Command Reference for Cisco LCD Displays, page 3-30
- Managing DMP Displays That Are Attached to Your Centrally-Managed DMPs, page 3-25

RS-232 Command Reference for Cisco LCD Displays

You can use RS-232 command strings for centralized management of LCD display models (LCD-100-Pro-40N and LCD-110-Pro-52S) from the Cisco LCD Professional Series:

- Turning the Display On and Off, page 3-31
- Muting and Unmuting the Display, page 3-31
- Adjusting Brightness, page 3-31
- Adjusting Colorfulness, page 3-31
- Adjusting Contrast, page 3-31
- Turning the Remote Control On and Off, page 3-31
- Locking and Unlocking the Display and Its Remote Control, page 3-31

Before You Begin

- Prepare Cisco displays for centralized management through a DVI or HDMI signal cable.
- Deploy the system task that activates RS-232 command access for your Professional Series display. The system task to use is: **RS-232: Control supported, non-DMTech displays**.

Table 3-10 RS-232 Commands to Manage LCD Professional Series Displays Remotely

Task	RS-232 Syntax
Turning the Display On and Off	
Turn on the display	rs232.tx_hex=aa11fe010111
Turn off the display	rs232.tx_hex=aa11fe010010
Muting and Unmuting the Display	
Mute the display	rs232.tx_hex=aa13ff010114
Unmute the display	rs232.tx_hex=aa13ff010013
Adjusting Brightness	
Set brightness to 50 percent	rs232.tx_hex=aa25ff013257
Set brightness to 75 percent	rs232.tx_hex=aa25ff014b70
Set brightness to 100 percent	rs232.tx_hex=aa25ff016489
Adjusting Colorfulness	
Set colorfulness[1] to 50 percent	rs232.tx_hex=aa27ff013259
Set colorfulness to 75 percent	rs232.tx_hex=aa27ff014b72
Set colorfulness to 100 percent	rs232.tx_hex=aa27ff01648b
Adjusting Contrast	
Set contrast to 50 percent	rs232.tx_hex=aa24ff013256
Set contrast to 75 percent	rs232.tx_hex=aa24ff014b6f
Set contrast to 100 percent	rs232.tx_hex=aa24ff016488
Turning the Remote Control On and Off	
Turn on the remote control	rs232.tx_hex=aa36ff010137
Turn off the remote control	rs232.tx_hex=aa36FF010036
Locking and Unlocking the Display and Its Remote Control	
Lock all features	rs232.tx_hex=aa5dff01015e
Unlock all features	rs232.tx_hex=aa5dff01005d

1. An image with a colorfulness value of zero percent is grayscale, while the same image with a colorfulness value of 100 percent has vivid colors.

Configuring the Settings for Enterprise TV

Activation

Software feature modules for Cisco DMS are purchased and licensed separately. Features are hidden from all users until you purchase and install the required license to use them, and even then remain hidden from users whose privilege levels are low. To understand feature licenses and learn how to install them, see Managing Licenses for Features and Components of Cisco DMS, page 2-3. To learn how user access to features is restricted by the combination of licenses and user privilege levels, see Understanding User Roles in DMS-Admin, page 2-9. To learn which software feature modules are available for you to purchase, see http://www.cisco.com/go/dms.

An administrator uses DMM-ETV to:

- Customize on-screen menus with a logo and a skin.
- Configure video channel assignments.
- Specify what channels and programs should be available to the DMP displays where your organization will deploy Enterprise TV, and when they should be available.

An on-premises operator uses a handheld remote control unit or an emulated remote control to navigate through live video channel menus, change channels, and select from video-on-demand categories.

- Understanding Restrictions for Enterprise TV, page 3-33
- Choosing Where in Your WAN to Show Live or On-Demand Programming, page 3-33
- Understanding the Typical Workflow for Enterprise TV, page 3-33
- Configuring Settings for TV Channels, page 3-34
- Configuring Subscription Settings for EPG Providers, page 3-43
- Configuring Enterprise TV Settings for Video on Demand, page 3-46
- Using ‘Skins’ to Customize the Enterprise TV Menu System, page 3-50
- Emulating the DMP Remote Control for Enterprise TV, page 3-56

Understanding Restrictions for Enterprise TV

- Video-on-demand (VoD) features for Enterprise TV depend upon the media library features for digital signage. Therefore, even though the DMM-ETV and DMM-DSM software modules are licensed separately and can operate independently of one another in most ways, you cannot use the VoD features for Enterprise TV unless you have installed the licenses for *both* DMM-ETV and DMM-DSM.
- The features for Enterprise TV in this release support 99 or fewer channels of live broadcast programming and VoD programming, combined.
- Any digital encoders that you use for live broadcast channels must adhere to the MPEG2-TS standard for streaming and must support at least one of these codecs:
  - MPEG1
  - MPEG2
  - MPEG4/h.264 (supported on DMP 4400G endpoints only)

  For this reason, we recommend that you use a Scientific Atlanta 9032SD encoder or 9050HD encoder to encode the video streams that your DMPs use for Enterprise TV channels.

Choosing Where in Your WAN to Show Live or On-Demand Programming

Programming	Factors to Consider
Live	Organizations that use Enterprise TV tend to show live video programming at their sites with the greatest bandwidth capacity, such as their main site. Live video programming is not suitable for remote branch offices with low bandwidth capacity.
VoD	Remote branch offices are better suited to VoD programming than they are to live video programming. Common use cases for VoD programming include training and executive communications. We recommend that you use a content delivery system to provision the assets for your VoD programming, particularly if your remote sites have low bandwidth capacity.

Understanding the Typical Workflow for Enterprise TV

This topic describes the ordinary workflow for Enterprise TV.

Before You Begin

- Install the license for Enterprise TV on your DMM appliance.
- Deploy DMPs and DMP displays to the sites where you will show Enterprise TV.
- For live TV—Negotiate with a cable or satellite TV service in your region for the right to redistribute their package of TV channel signals, in whole or in part.
- For live TV—Configure one Scientific Atlanta 9032SD encoder or 9050HD encoder apiece for each TV channel signal that you will stream in real time.

	Workflow	Actions
Step 1	Use elements on the Skin Customization tab to enable or disable the electronic program guide (EPG) for Enterprise TV. When it is enabled, people at your deployment sites can use a handheld remote control unit or an emulated remote control to browse on-screen program listings and choose programs to watch.	**a.** See Using 'Skins' to Customize the Enterprise TV Menu System, page 3-50.
Step 2	If you will use an EPG, choose a channel description population method for each channel that the EPG will describe.	• See Understanding Supported Methods to Populate EPG Channel Descriptions, page 3-37 You can skip this task if you will not use the EPG.
Step 3	If you will use an EPG and populate its channel descriptions from an EPG data subscription, define the settings for that subscription.	Use elements on the EPG Providers tab to: **a.** Enter login credentials for your subscription. See Adding or Editing Subscriptions to Data from an EPG Provider, page 3-44. **b.** Obtain and then synchronize the schedule and description data for programs. See Synchronizing TV Channel Schedules and Program Descriptions for the EPG, page 3-46.
Step 4	If your DMM appliance does not have direct Internet access and should use a proxy server to obtain data from your preferred EPG data service provider, configure a SOCKS proxy for Enterprise TV.	**a.** See Proxy Settings (Optional), page 3-45

Configuring Settings for TV Channels

- UI Reference: Elements to Manage TV Channels, page 3-34
- Adding New Channels, page 3-37
- Editing Channels, page 3-40
- Reassigning Channel Numbers, page 3-41
- Deleting Channels, page 3-41
- Listing Only the Defined (Active) or Undefined (Inactive) TV Channels, page 3-42

UI Reference: Elements to Manage TV Channels

Navigation Path

Enterprise TV > TV Channels

The TV Channels table describes the defined and undefined TV channels for your network and includes features that help you to manage these channels.

Table 3-11 Elements of the TV Channels Table

Element	Description
Channel View list	Enables or disables a filtered view of which channels this table describes, based on which option you choose: • **All Channels**—Shows the combination of all defined and undefined channels. • **Active Channels**—Shows only the defined channels. • **Inactive Channels**—Shows only the channels that are not yet defined.
Channel Number	One numeral per row, in the range from 1 to 99, where any numeral can be the TV channel number that you associate with a particular multicast stream. The default behavior for this table is that it shows all 99 possible channel numbers, one per row. Your choice from the Channel View list might limit how many rows the table contains, and this can affect indirectly how many channel numbers you see. If you sort the table by clicking a column heading, channel numbers might be rearranged temporarily into an unrecognizable sequence. To sort channels back into the expected sequence if their sequence has become unrecognizable, click the Channel Number column heading.
Channel Name Description Multicast Address: Port Call Letters for Channel	Blank when the corresponding row describes an undefined TV channel. Otherwise, shows a value that you entered or an option that you chose from a list when you defined the channel. To understand these values, see Table 3-12 on page 3-38.

Table 3-11 Elements of the TV Channels Table (continued)

Element	Description
Reassign to Nearest Unused Channel	Two buttons, either of which can change the association between a channel definition and a channel number. The channel definition in the corresponding row becomes associated instead with the closest channel (of a higher number or a lower number, respectively) that is undefined. These buttons have no effect when every channel is already defined. The first row and last row of this table will only ever show one of these buttons apiece. These rows differ from all other rows in the table because you cannot use any channel number that is lower than the lowest supported channel number or higher than the highest supported channel number. The first row shows only , while the last row shows only . • —Associates the channel definition that the corresponding row describes with whichever *lower-numbered* channel is nearest among the undefined channels. The arrow points up because table rows above this row are reserved for lower-numbered channels. • —Associates the channel definition that the corresponding row describes with whichever *higher-numbered* channel is nearest among the undefined channels. The arrow points down because table rows above this row are reserved for higher-numbered channels.
Actions	One of these: • **Set Up Channel**—Opens the dialog box where you can enter values and define attributes for a TV channel. This button is visible only in rows that describe undefined TV channels. • —A list from which you can choose one of the following options. This list is visible only in rows that describe defined TV channels. – **Edit Channel Settings**—Opens the dialog box where you can edit the values and attributes of a channel that is already defined. – **Reassign to Any Unused Channel**—Associates the channel definition that the corresponding row describes with whichever channel is nearest among the undefined channels. The new channel number might be higher or lower than whichever channel number was in effect until you changed it. – **Delete This Channel**—Deletes all entries and attribute values from the definition of the channel that the corresponding row describes. The relevant channel number will not be associated with any defined channel unless or until you define a new channel for it or associate an existing channel with it.

Related Topics

- Adding New Channels, page 3-37
- Editing Channels, page 3-40
- Reassigning Channel Numbers, page 3-41

Adding New Channels

You can define many attributes for a new TV channel in your lineup. Permitted channel assignments range from 1 to 99.

Tip When you plan how many TV channels to configure, consider the actual bandwidth capacity in your WAN and at each remote site where you will show Enterprise TV. The typical rate of bandwidth consumption will be in the range from 2 Mbps to 16 Mbps per channel, per site.

Procedure

Step 1 Click the **TV Channels** tab.

Step 2 In the Channel Number column, identify the channel to be defined and then, in the corresponding row, click **Set Up Channel** in the Actions column.

The Add a New Channel dialog box opens.

Step 3 Choose the options or enter the values that meet your requirements.

Step 4 Do one of the following:

- To save your entries, click **Add a Channel**.
- To discard your entries, click **Cancel**.

Related Topics

- UI Reference: Elements to Manage TV Channels, page 3-34
- Actions, page 3-36

Understanding Supported Methods to Populate EPG Channel Descriptions

Using Generic Channel Descriptions

You can disassociate a channel from all EPG data sources. In this case, the only information that an EPG will show about the channel is exactly the text that you enter in the Text to Show if Program Guide is Not Available field. This brief message, which you enter one time, describes the channel in a broad and general sense, and straddles all time slots.

Using Channel Descriptions from a CSV File

You can enter descriptions into a CSV file for each program that a channel will show. With this method, you can have and use an EPG without entering into a subscription contract. To populate an EPG completely, you must create and upload a separate CSV file for every channel that your EPG should include. EPG provider-related prerequisites do not apply if your channel will use programming data from a CSV file.

There are strict requirements for what constitutes a valid CSV file. It must use syntax and formatting that are perfectly consistent with output from a downloadable Microsoft Excel format template that we provide for your use. We strongly recommend that you derive your CSV files from the free template. Click **Download the CSV Template** to obtain a copy of the template, and start using it to define the EPG attributes for programs on one channel. You can define the attributes for only a few programs or for as many as 14 days of programs.

Populate fields in the template as follows, where each table row contains the attributes for one program in the EPG for the corresponding TV channel:

- **Date**—The date and time of day when one described program will start. Start times for programs in your CSV file must use the format MM/DD/YY HH:mm.
- **Duration**—The total running time for the described program. Duration values for programs must use numerals, which indicate the total duration in minutes.
- **Title**—The title that the program guide should show for the described program. Program titles are limited to a maximum of 23 characters. If the text to be displayed in a program title should show any visible quotation marks, you must enter exactly \" for each quotation mark that should be visible.
- **Description**—The actual description that the program guide should show for the program. Descriptions are limited to a maximum of 50 characters. If the text to be displayed in your program guide should show any visible quotation marks, you must enter exactly \" for each quotation mark that should be visible.

Define the attributes for programs on one channel, and then save and upload your CSV file.

Using Channel Descriptions from a Data Subscription

You can negotiate with a vendor of programming data to establish a paid subscription, by which you will gain automatic access to current program schedules and descriptions for multiple channels. Before your channel can use any EPG data from a subscription provider, you must enter your subscription details and synchronize data on the EPG Providers tab. Then, you must configure the channel on the TV Channels tab. The supported data formats are:

- **TMS**—Your EPG will use Tribune Media Services data to describe the channel and its programs.
- **<*XMLTV*>**—Your EPG will use data in the XMLTV format to describe the channel and its programs. The provider name here is not necessarily "XMLTV." Instead, it matches exactly what you entered for the provider name when you configured your subscription settings, assuming that you have an XMLTV data subscription.

Related Topics

- Adding New Channels, page 3-37
- Download the CSV Template, page 3-39

UI Reference: Elements to Define Channel Settings

Navigation Path

- Enterprise TV > TV Channels > Set Up Channel
- Enterprise TV > TV Channels > > Edit Channel Settings

Table 3-12 Elements for Channel Definition

Element	Description
Your Name for This Channel	A meaningful, brief, and unique description of the channel that the corresponding row describes, such as China Central Television, Univision, Al-Jazeera, BBC-1, Star Cricket, HBO, or CNN.

Table 3-12 Elements for Channel Definition (continued)

Element	Description
Address Type	The method (multicast or HTTP) that your DMPs will use to receive the video stream for this channel. Choose an option from the list to enter the correct kind of address. Your choice determines which other fields appear on this page. The options are: • Multicast Address—The routable IP address and UDP port for a streaming server, as described in the "Multicast Address: Port" row elsewhere in this table. • HTTP URL—The full HTTP URL for one video file of a supported type, as described in the "HTTP URL" row elsewhere in this table.
Multicast Address: Port	The IP address and port number of the streaming server from which your DMPs will receive the multicast stream for this channel. You must specify the port number. This field is visible only after you choose Multicast Address from the Address Type list. If you later choose any other option from the Address Type list, DMM-ETV will ignore the values in this field.
HTTP URL	The exact URL and path that points to one MPEG video file on an HTTP server. You must use HTTP as the protocol and the filename extension must be MPG. This field is visible only after you choose HTTP URL from the Address Type list.
Text to Show if Program Guide is Not Available	Text that describes this channel. The electronic program guide (EPG) shows this text when no other information is available. When the EPG uses this text, it does not describe individual programs for this channel. See Using Generic Channel Descriptions, page 3-37.
EPG Provider	Associates or disassociates this channel with one EPG data source and specifies the nature of that source if you associate one with this channel. You can choose whether to use any data source. The options are similar to these: • **TMS**—Your EPG will use data from Tribune Media Services to describe this channel and its programs. See Using Channel Descriptions from a Data Subscription, page 3-38. • **<*XMLTV*>**—Your EPG will use data in the XMLTV format to describe this channel and its programs. See Using Channel Descriptions from a Data Subscription, page 3-38. • **Upload CSV**—Your EPG will use data from a CSV file to describe this channel and its programs. See Using Channel Descriptions from a CSV File, page 3-37. • **None**—Your EPG will use a brief, generic statement to describe this channel and its programs. See Using Generic Channel Descriptions, page 3-37. **Note** EPG data *is not required* for Enterprise TV to work. You can use options at Enterprise TV > Skins Customization to enable or disable the EPG for Cisco DMS. You are not required to subscribe to any EPG data service.
CSV File (Browse)	The method to find and select a CSV file that you have stored locally and will upload to your DMM appliance.
Download the CSV Template	A downloadable template file in Microsoft Excel format that you can use to define the EPG attributes for programs on one channel. This link is visible only when you have chosen Upload CSV from the EPG Provider list. See Using Channel Descriptions from a CSV File, page 3-37.

Table 3-12 Elements for Channel Definition (continued)

Element	Description
Call Letters for Channel	A list of call letters for TV channels that your EPG subscription includes. The list is variable according to your location in the United States, the package of channels that you receive from your cable or satellite TV provider, the nature of your contract with TMS, and possibly other factors. Your list might include some or all of these call letters, possibly among others: • ABC—American Broadcasting Company • AZA—Azteca América • CBC—Canadian Broadcasting Corporation • CBS—CBS Broadcasting • CW—The CW Television Network • FOX—Fox Broadcasting Company • MNT—MyNetworkTV • NBC—National Broadcasting Company • PAX—ION Television • PBS—Public Broadcasting Service • SRC—SRC • TEL—Telemundo • TLF—TeleFutura • TQS—Télévision Quatre Saisons • TVA—Tele Vida Abundante • UNI—Univision This list is visible only after you choose Tribune Media Services from the EPG Provider list.

Related Topics

- Adding or Editing Subscriptions to Data from an EPG Provider, page 3-44
- Configuring Subscription Settings for EPG Providers, page 3-43
- Using 'Skins' to Customize the Enterprise TV Menu System, page 3-50

Editing Channels

Procedure

Step 1 Click the **TV Channels** tab.

Step 2 In the Channel Number column, identify the channel to be edited; then, click the arrow ( ) in the Actions column for that row.

The Actions menu expands so that you can see and choose among its options.

Step 3 Click **Edit Channel Setting**.

The Edit an Existing Channel dialog box opens.

Step 4 Choose the options or enter the values that meet your requirements, as described in Table 3-12 on page 3-38.

Step 5 Do one of the following:

- To save your entries, click **Update Channel**.
- To discard your entries, click **Cancel**.

Related Topics

- UI Reference: Elements to Manage TV Channels, page 3-34

Reassigning Channel Numbers

Procedure

Step 1 Click the **TV Channels** tab.

Step 2 In the Channel Number column, identify the channel to be edited.

Step 3 Click the up ( ) or down ( ) arrow to reassign this channel to the nearest unused number.

Alternatively, to specify a number for a channel, do the following:

a. In the Channel Number column, identify the channel to be edited; then, click the arrow ( ) in the Actions column for that row.

The Actions menu expands so that you can see and choose among its options.

b. Click **Reassign to Any Unused Channel**.

c. From the list in the Actions column, choose the channel number to assign to this channel.

Related Topics

- UI Reference: Elements to Manage TV Channels, page 3-34
- "Reassign to Nearest Unused Channel" (in Table 3-11 on page 3-36)

Deleting Channels

Procedure

Step 1 Click the **TV Channels** tab.

Step 2 In the Channel Number column, identify the channel to be deleted; then, click the arrow () in the Actions column for that row.

The Actions menu expands so that you can see and choose among its options.

Step 3 Click **Delete This Channel**.

The Delete Confirmation dialog box opens.

Step 4 Do one of the following:

- To delete the channel, click **Yes.**
- To retain the channel, click **No**.

Related Topics

- UI Reference: Elements to Manage TV Channels, page 3-34

Listing Only the Defined (Active) or Undefined (Inactive) TV Channels

You can filter the TV Channels table so that it describes defined channels only or undefined channels only. By default, the table describes all channels.

Procedure

Step 1 Click the **TV Channels** tab.

Step 2 From the Channel View list above the column headings, choose one of the following options:

- All Channels (default) —Shows the combination of all defined and undefined channels.
- Active Channels—Shows only the defined channels.
- Inactive Channels—Shows only the channels that are not yet defined.

Related Topics

- UI Reference: Elements to Manage TV Channels, page 3-34

Understanding Data Formats for EPG Provider Subscriptions

Note When you negotiate the contract to receive EPG data in any format, tell your subscription provider that you will use its EPG data with Cisco Enterprise TV. Knowing this, your provider can ensure that your license grants you sufficient permissions so that you are not in violation of its terms.

We support the XMLTV and TMS data formats for subscriptions to electronic program guide (EPG) data.

XMLTV

- XMLTV is an emerging, open-source format for EPG data, based in part on RFC 2838, and maintained by the XMLTV Project. An EPG data file that complies with this format contains structured records that describe the attributes of episodes and channels individually.

Cisco DMS supports EPG data subscriptions that retrieve a single gzip-compressed XMLTV file from an ftp server. Many subscription providers compile and deliver EPG data in this way, including these providers based in the United States:

- FYI Television, Inc. (http://www.fyitelevision.com/)
  1901 N State Hwy 360 3rd Floor
  Grand Prairie, TX 75050
- Schedules Direct (http://www.schedulesdirect.org/)
  8613 42nd Ave S
  Seattle, WA 98118

Tribune Media Services

Tribune Media Services (TMS; http://tms.tribune.com/products/k-epgs.html) sells subscriptions to EPG data in several proprietary data formats that it controls. Cisco DMS supports *only one* of these data formats. Specifically:

- The name of the supported product is *TV Schedules, United States*.
- The scope of the supported product is *Fourteen (14) rolling days*.
- Subscriptions that use this format are available only within the United States.

Other EPG subscription products from TMS use data formats that we do not support. If you are already a TMS customer, check whether your preexisting subscription contract already authorizes you to obtain and use EPG data in the supported format.

Note

- To learn more about the supported TMS data format or to negotiate the commercial contract for a subscription, contact Amy Mann, the director of new media sales at Tribune Media Services. Her toll-free telephone number is 800 833-9581, ext. 2333, and her email address is aamann@tribune.com. To ensure that your contract includes sufficient permissions, be sure to say that you intend to use TMS data for Cisco Enterprise TV.
- It might be necessary to adjust security settings in your network so that you can receive EPG data from TMS. The ftp server on your DMM appliance must be able to reach the TMS ftp server.
- Data from TMS is proprietary, copyrighted, and licensed. Although TMS compiles this licensed data in good faith, neither Cisco nor TMS makes any express or implied warranties regarding the data or its merchantability or fitness for any particular purpose.

Configuring Subscription Settings for EPG Providers

Electronic program guide (EPG) data *is not required* for Enterprise TV to work. You can enable or disable the EPG for Cisco DMS. You are not required to subscribe to any EPG data service.

Tip To have and use an EPG without entering into a subscription contract with TMS, you can create and upload a CSV file that contains program descriptions that you have entered.

- Adding New Channels, page 3-37
- Using Channel Descriptions from a CSV File, page 3-37
- Adding or Editing Subscriptions to Data from an EPG Provider, page 3-44
- Deleting the Settings That Define an EPG Data Subscription, page 3-45
- Synchronizing TV Channel Schedules and Program Descriptions for the EPG, page 3-46

Adding or Editing Subscriptions to Data from an EPG Provider

You use elements on the EPG Providers page to define the settings for your EPG data subscriptions, view a summary of all subscriptions that you have defined and, optionally, choose whether to edit, delete, or synchronize a subscription.

For information about associating a subscription with a channel, see Adding New Channels, page 3-37.

Procedure

Step 1 Click the **EPG Providers** tab.

Step 2 Do one of the following:

- To define the settings for a new subscription, click **Add an EPG Provider**.
- To edit a subscription that you defined previously:
  a. In the EPG Provider Name column, identify the subscription to be edited; then, click the corresponding arrow ( ) in the Actions column.

     The Actions menu expands so that you can see and choose among its options.
  b. Click **Edit**.

A dialog box opens, in which you can define or edit the attributes for this subscription.

Step 3 Choose the options or enter the values that meet your requirements, as described in Table 3-13 on page 3-45.

Step 4 Do one of the following:

- To save your entries, do one of the following:
  - If you are defining a new subscription, click **Add Provider**.
  - If you are editing a subscription that you defined previously, click **Update Provider**.
- To discard your entries, click **Cancel**.

UI Reference: EPG Provider Settings

Table 3-13 Elements for Defining EPG Subscription Settings

Element	Description
Provider Name	The name that you use to distinguish this provider from all other providers.
Data Format	The file format for your subscription data, after you download and decompress it. One of these: • Tribune Media Services - TV Schedules • XMLTV
Host or IP Address	The routable IP address or DMS-resolvable hostname of the ftp server where you obtain EPG data from your subscription provider.
Username	Your username to log in to the specified ftp server.
Password	The password to authenticate your username to the specified ftp server.
Remote Path	The ftp server subdirectory path where EPG data files are stored for your subscription. Enter the full pathname, including the actual filename for the .gz (gzipped) archive, if the data format is XMLTV. For example, you might enter *pub/xmltv.xml.gz*.
Proxy Settings (Optional)	
Proxy Hostname Proxy Port	The routable IP address or DMS-resolvable hostname and port number of the proxy server that your DMM appliance should use if it does not have direct Internet access. **Note** Do not enter a colon before the port number. **Note** Do not configure proxy settings for DMM appliances that have direct access to the Internet.
Automatic Synchronization Time	
Hour Minute	The exact time of day when your DMM appliance should synchronize its program guides for Enterprise TV with the latest available EPG data from your service provider.

Deleting the Settings That Define an EPG Data Subscription

Procedure

Step 1 Click the **EPG Providers** tab.

Step 2 In the EPG Provider Name column, identify the subscription to be deleted; then, click the corresponding arrow ( ) in the Actions column.

The Actions menu expands so that you can see and choose among its options.

Step 3 Click **Delete**.

Step 4 Click **Yes** to delete the subscription, when prompted to confirm your choices. Alternatively, click **No** to retain the subscription**.**

Synchronizing TV Channel Schedules and Program Descriptions for the EPG

Procedure

Step 1 Click the **EPG Providers** tab.

Step 2 In the EPG Provider Name column, identify the subscription whose TV channel schedules and program descriptions should be synchronized to your EPG; then, click the corresponding arrow ( ) in the Actions column.

The Actions menu expands so that you can see and choose among its options.

Step 3 Click **Synchronize**.

The Performing EPG Synchronization dialog box opens. It shows a progress indicator ( ) that spins until synchronization has finished. The dialog box then closes itself automatically.

Step 4 (Optional) To dismiss the dialog box and perform synchronization in the background so that you can continue your work, click **Run in Background.**

Configuring Enterprise TV Settings for Video on Demand

Activation

Video-on-demand (VoD) features for Enterprise TV depend upon the media library features for digital signage. Therefore, even though the DMM-ETV and DMM-DSM software modules are licensed separately and can operate independently of one another in most ways, **you cannot use VoD features for Enterprise TV unless you have installed the licenses for both DMM-ETV and DMM-DSM**.

- Working With VoD Categories, page 3-46
- Mapping a Video to a VoD Category, page 3-49
- Organizing Videos in VoD Categories, page 3-50
- Removing a Video from a Category, page 3-50

Working With VoD Categories

Categories help you to manage how VoDs are organized for the interactive menu system at sites where you deploy Enterprise TV.

- Adding a New VoD Category, page 3-47
- Adding a New VoD Subcategory, page 3-47
- Editing a VoD Category, page 3-47
- Deleting a VoD Category, page 3-48
- Mapping a Video to a VoD Category, page 3-49
- UI Reference: VoD Categories, page 3-48

Adding a New VoD Category

Procedure

Step 1 Choose **Video on Demand > Categories**.

The Categories area is on the left, and after you click a category, a table on the right describes the videos that are mapped to that category.

Step 2 Click **Actions > Create a Category**.

Step 3 Enter a descriptive name for the category.

Step 4 Click **Save**.
Alternatively, click **Cancel** to discard your work.

Related Topics

- Working With VoD Categories, page 3-46
- UI Reference: VoD Categories, page 3-48

Adding a New VoD Subcategory

Procedure

Step 1 Choose **Video on Demand > Categories**.

The Categories area is on the left, and after you click a category, a table on the right describes the videos that are mapped to that category.

Step 2 Click the category that should contain the subcategory.

Step 3 Choose **Actions > Create a Category**.

Step 4 Enter a descriptive name for the subcategory.

Step 5 Click **Save**.
Alternatively, click **Cancel** to discard your work.

Related Topics

- Working With VoD Categories, page 3-46
- UI Reference: VoD Categories, page 3-48

Editing a VoD Category

Procedure

Step 1 Choose **Video on Demand > Categories**.

The Categories area is on the left, and after you click a category, a table on the right describes the videos that are mapped to that category.

Step 2 Click the name of the category to be edited.

Step 3 Choose **Actions > Modify Category**.

Step 4 Edit the values.

Step 5 Click **Save**.
Alternatively, click **Cancel** to discard your work.

Related Topics

- Working With VoD Categories, page 3-46
- UI Reference: VoD Categories, page 3-48

Deleting a VoD Category

Procedure

Step 1 Choose **Video on Demand > Categories**.

The Categories area is on the left, and after you click a category, a table on the right describes the videos that are mapped to that category.

Step 2 Click the name of the category that you want to delete.

Step 3 Click **Actions > Delete Category**.

The Delete Confirmation dialog box opens.

Step 4 Click **Yes** to delete the category.
Alternatively, click **No** to retain it.

Related Topics

- Working With VoD Categories, page 3-46
- UI Reference: VoD Categories, page 3-48

UI Reference: VoD Categories

Navigation Path

Enterprise TV > Video on Demand > Categories

Table 3-14 Elements for Managing VoD Categories

Element	Description
Categories selector	A hierarchical tree (an object selector) of VoD categories. Highlight the name of a category to designate it as the one that should contain a VoD that you will map to it.
Actions	Options that you can choose, whose effect is relative to the category that you chose. • Create a Category • Modify Category • Delete Category

Table 3-14 Elements for Managing VoD Categories (continued)

Element	Description
untitled table	Each row describes one VoD asset that is mapped to a category for Enterprise TV. Asset attributes that these columns describe are derived from records in your media library: • Title • Description • Duration • Source
Map Videos to Category	Opens a dialog box in which you can choose the videos to be mapped.

Mapping a Video to a VoD Category

Each video that you map to a category will be listed as a VoD in the interactive menu system at sites where you deploy Enterprise TV.

Before You Begin

- Add the video to your shared Media Library for digital signage and Enterprise TV.
- Create the category. See Working With VoD Categories, page 3-46.

Procedure

Step 1 Click the **Video on Demand** tab.

Step 2 In the Categories area, click the name of the category to which you will add a video.

Step 3 In the area that lists videos, click **Map Videos to Category**.

The VoD Mapping dialog box opens. A tree on the left shows the hierarchy of categories for assets in your shared Media Library and, after you click a category, an untitled table on the right describes each asset in that category.

Step 4 Click the Media Library category that contains the video that you want to use as a VoD.

The videos in this category are described in the untitled table on the right.

Step 5 Click the name of the video, and then drag and drop it to the area below.

Tip To choose more than one video, press the Shift key while clicking the names of videos.

Step 6 Do one of the following:

- To add the video, click **Submit Mapping**. The category that you chose is now part of the categories tree on the Video on Demand page. When you choose that category in the tree, the untitled table on the left side of the page describes each video that you added as a VoD.
- To discard your entries, click **Cancel**.

Organizing Videos in VoD Categories

When you organize the videos in a VoD category, you set the order in which Enterprise TV shows the videos at your deployment sites.

Procedure

Step 1 Click the **Video on Demand** tab.

Step 2 In the Categories area, click the name of the category that includes the videos to be organized.

The videos in this category are described in the untitled table on the right.

Step 3 Click the name of the video; then, drag and drop it to its new location in the list. Videos that are higher in the list will be shown before videos that are lower in the list.

Removing a Video from a Category

When you remove a video from a category on the Video on Demand page, you remove it also from the interactive menu system at sites where you deploy Enterprise TV.

Procedure

Step 1 Click the **Video on Demand** tab.

Step 2 In the area that lists videos, click **Map Videos to Category**.

The VoD Mapping dialog box opens.

Step 3 Click the **Remove** link that corresponds to a video that should be removed.

Using 'Skins' to Customize the Enterprise TV Menu System

You can customize the interactive menu system that is presented to viewers at your deployment sites and choose which features this menu should include.

- Choosing the Color Scheme for Your Menu System, page 3-51
- Specifying Which Features Your Menu System Should Include, page 3-51
- Showing a Custom Logo in Your Menu System, page 3-51
- Showing the Cisco Logo in Your Menu System, page 3-52
- Choosing the Date and Time Formats for Your Menu System, page 3-52
- Deploying Menu System Customizations to Your DMPs, page 3-53

Choosing the Color Scheme for Your Menu System

Procedure

Step 1 Click the **Skin Customization** tab.

Step 2 In the Choose a Skin area, click the radio button for the color scheme that you want.

Step 3 Click **Save** to save your work.
Alternatively, click **Cancel** to discard it

Tip Menu customizations do not take effect until you deploy them to DMPs.

Related Topics

- Deploying Menu System Customizations to Your DMPs, page 3-53

Specifying Which Features Your Menu System Should Include

Procedure

Step 1 Click the **Skin Customization** tab.

Step 2 In the Features to Include in the Enterprise TV Main Menu area, check the check box for each feature that the menu system should include:

- Electronic Programming Guide
- Video on Demand
- Live TV Channels

Step 3 Click **Save** to save your work.
Alternatively, click **Cancel** to discard it

Tip Menu customizations do not take effect until you deploy them to DMPs.

Related Topics

- Deploying Menu System Customizations to Your DMPs, page 3-53

Showing a Custom Logo in Your Menu System

Procedure

Step 1 Click the **Skin Customization** tab.

Step 2 In the Upload a Custom Logo area, click **Browse**.

Step 3 Choose the file to be uploaded, and then click **Open**.

Step 4 Click **Preview** to view the logo file.

Step 5 Check the **Display Custom Logo** check box.

The logo appears in the upper right of the menu system.

Step 6 Click **Save** to save your work.
Alternatively, click **Cancel** to discard it

Tip Menu customizations do not take effect until you deploy them to DMPs.

Related Topics

- Deploying Menu System Customizations to Your DMPs, page 3-53

Showing the Cisco Logo in Your Menu System

Procedure

Step 1 Click the **Skin Customization** tab.

Step 2 Check the **Display Cisco Logo** check box.

The logo appears in the lower left of the menu system.

Step 3 Click **Save** to save your work.
Alternatively, click **Cancel** to discard it

Tip Menu customizations do not take effect until you deploy them to DMPs.

Related Topics

- Deploying Menu System Customizations to Your DMPs, page 3-53

Choosing the Date and Time Formats for Your Menu System

Procedure

Step 1 Click the **Skin Customization** tab.

Step 2 Choose either **mm/dd/yyyy** or **yyyy/mm/dd** from the Date Format list, where:

- mm is the month
- dd is the date in the month
- yyyy is the year

Step 3 Check the **Use Military Time** check box if your menu system should use a 24-hour clock that counts from 00:00 to 23:59 the hours that pass from one midnight to the next.
Alternatively, uncheck this check box if your menu system should use a 12-hour clock that counts from 12:00 to 11:59 the hours that pass from midnight to noon (designated as *a.m.*), and again from noon to midnight (designated as *p.m.*).

Step 4 Click **Save** to save your work.
Alternatively, click **Cancel** to discard it

Tip Menu customizations do not take effect until you deploy them to DMPs.

Related Topics

- Deploying Menu System Customizations to Your DMPs, page 3-53

Deploying Menu System Customizations to Your DMPs

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Choose the DMP or DMP group that should use this menu skin.

Step 3 Choose **ETV-PG** from the Actions list, and then click **Go**.

Related Topics

- Managing and Grouping Your DMPs, page 3-12

Using DMP Local Storage for Enterprise TV VoD Playback

If your WAN has limited bandwidth that would reduce the playback quality for VoD programs that Enterprise TV receives over your network or if you do not have a dedicated content delivery solution in place, such as WAAS or ACNS, you can provision Enterprise TV assets directly to a DMP, for storage on:

- Its internal SD flash memory card (usb_1).
- An external USB drive (usb_2), which you have attached to the DMP.

This technique conserves WAN bandwidth and avoids latency that might detract from the quality of your Enterprise TV VoD programming.

Procedure

	Workflow	Actions
Step 1	Create the DMP group whose member DMPs should all store local copies of your VoD assets.	See Managing and Grouping Your DMPs, page 3-12.
Step 2	Define your channel lineup for Enterprise TV.	See Adding New Channels, page 3-37.
Step 3	Customize your Enterprise TV menu system.	See Using 'Skins' to Customize the Enterprise TV Menu System, page 3-50.
Step 4	Define VoD categories for Enterprise TV.	See Working With VoD Categories, page 3-46.
Step 5	Add video assets to your shared media library.	See: • Adding One Asset at a Time to Your Media Library, page 3-67. • Adding Multiple Assets Simultaneously to Your Media Library, page 3-67.
Step 6	Populate your VoD categories with video assets from your media library.	See Mapping a Video to a VoD Category, page 3-49.
Step 7	Verify that the FTP service is enabled on the target DMPs.	See System Tasks, page 3-120.
Step 8	Create a deployment package for the Enterprise TV program guide.	**a.** Choose **Digital Media Players > Advanced Tasks**. **b.** Choose **Deployment Package** from the Application Types list. **c.** Click **Add New Application**. **d.** Choose **Enterprise TV** from the Applications list. **e.** Enter **Deploy-Local-ETV** in the Name field. **f.** Choose an option from the Mount Point list: • Choose **Flash Storage (default)** if "usb_1"—an SD memory card that is installed inside your DMP—should be the mount point. • Choose **USB** if "usb_2"—an external hard drive or flash drive that you have attached to your DMP—should be the local mount point. **g.** Click the name of your Enterprise TV program guide, and then click **Select Application**. **h.** Click **Submit**.

	Workflow	Actions
Step 9	Provision your Enterprise TV program guide to DMPs that should serve on-demand video from their local storage.	**If the Program Guide Should be Provisioned Now** **a.** Choose **Schedules > Play Now**. **b.** Choose the DMP or the DMP group that should receive this deployment. **c.** Choose **Advanced Tasks** from the Select an Event Type list, and then click **Select Advanced Tasks**. **d.** In the Select Event dialog box: **1.** Click **Deployment Package**. **2.** Click **Deploy-Local-ETV**, or whichever other name you used in Step 8-e. **3.** Click **OK**. **e.** Click **Submit**, and then go to Step 10. **If the Program Guide Should be Provisioned in the Future** **a.** Choose **Schedules > Play in Future**. **b.** From the calendar, choose the year, month, and day when the deployment should start. **c.** Choose **Advanced Tasks** from the Add an Event list under the timeline. **d.** In the Schedule Task dialog box (and the dialog boxes that it spawns): **1.** Click **Select Group**, click the group name, and then click **OK**. **2.** Click **Select Advanced Tasks**, click **Deployment Package**, and then click **OK**. **3.** Edit date and time values and the settings for recurrence. **4.** Verify that the deployment start and stop times occur the logical order, and differ. **5.** Click **Save**. **e.** Click **Save All**. **Note** You must click Save All. If you do not click it, the schedule discards your selections immediately after you refresh your browser or load any other page. **f.** Click **Publish All**, and then go to Step 10
Step 10	Transfer your customized menu system, channels list, VoD playlist, and video assets to DMPs.	Choose whether to use DMS-CD or the legacy "File Transfer to DMP or Server" feature. • If you will use DMS-CD, see Using DMS-CD Deployment Packages to Provision Assets to DMPs, page 3-105. • If you will use the legacy method, see File Transfer to DMP or Server, page 3-119. **Note** We recommend that you use DMS-CD instead of the legacy method, which is deprecated. When you use the "File Transfer to DMP or Server" feature to provision assets to DMP local storage, these assets are saved to the flash memory card (usb_1) that is preinstalled inside the DMP. You cannot use this feature to transfer assets to any external USB drive (usb_2) that you might have attached to the DMP. Furthermore, this feature lacks the differential download intelligence that is built into DMS-CD.
Step 11	Monitor progress and the current status of your deployment.	**a.** Choose **Digital Media Players > Deployment Manager > Deployment Status**. **b.** (Optional) Use filtering options above the table to limit how many deployment packages the table describes.

Related Topics

- About the Built-in Mechanism for Content Distribution, DMS-CD, page 3-99
- Scheduling Time Slots for Media and Events on DMPs, page 3-130

Emulating the DMP Remote Control for Enterprise TV

Topics in this section describe a software-based emulator that you can use in place of, or in addition to, the remote control unit for a DMP.

Note

- Although Cisco sells a physical remote control device for use with DMPs that deliver Enterprise TV programming to their attached displays, the remote control unit is an optional accessory for a DMP. To obtain one of these remote control units as a spare part, order Cisco part number 74-5639-01.
- To learn about the remote control unit, see *Remote Control Quick Start Guide for Cisco Digital Media Players* and *Regulatory Compliance and Safety Information for the Cisco Digital Media Player Remote Control* on Cisco.com.
- The emulated remote control supports changing channels for Enterprise TV, navigating in the Enterprise TV menu system, and adjusting audio volume settings for a DMP.

- Workflow in Cisco Unified Communications Manager to Provision the Emulator for IP Phones, page 3-56
- Configuring Emulator Settings in DMM-ETV, page 3-59
- Configuring an IP Phone to Emulate the Remote Control, page 3-60
- Starting the Emulator on an IP Phone, page 3-61
- Starting the Emulator on a Mobile Phone, page 3-62
- Using the Emulator on an IP Phone or a Mobile Phone, page 3-62

Workflow in Cisco Unified Communications Manager to Provision the Emulator for IP Phones

You can provision the Enterprise TV remote control emulator for use on Cisco IP phones.

Before You Begin

This workflow assumes that you are experienced as an administrator in Cisco Unified Communications Manager and that you use it already to manage a network of IP phones.

Tip Skip this workflow if you will not use any IP phones to emulate the remote control for Enterprise TV.

Note This workflow is based on Cisco Unified Communications Manager release 6.1. If you use any other release, the workflow might differ slightly in your network. We recommend that you read on Cisco.com the particular revisions of these guides that apply to your network:

- *Cisco Unified Communications Manager Administration Guide*
- *Cisco Unified Serviceability Administration Guide*

Procedure

	Workflow	Actions
Step 1	Activate all services.	**a.** Log in to Cisco Unified Communications Manager Administration. **b.** Choose **Cisco Unified Serviceability** from the Navigation list, and then click **Go**. **c.** Choose **Tools > Service Activation**. **d.** Click the Server list and choose from among its options the server where the remote control emulation service should be activated for Enterprise TV. **e.** Click **Go**. **f.** Check the **Check All Services** check box, and then click **Save**. **g.** Click **OK**.
Step 2	Start all services.	**a.** Choose **Tools > Control Center - Feature Services**. **b.** Click the Server list and choose from among its options the server where the remote control emulation service should be started for Enterprise TV. **c.** Click **Go**. **d.** *Repeat as many times as necessary until every service is running*: Click the radio button for any service that is not yet running, and then click **Start**.
Step 3	Configure enterprise parameters for the phone URL.	**a.** Choose **Cisco Unified CM Administration** from the Navigation list, and then click **Go**. **b.** Choose **System > Enterprise Parameters**., and then scroll to the Phone URL Parameters area. **c.** Verify that you have not changed the factory-default values for any of these parameters: • URL Authentication • URL Directories • URL Information • URL Services **d.** Click **Save**.

	Workflow	Actions
Step 4	Enable autoregistration of IP phones.	**a.** Choose **System > Cisco Unified CM**, and then click **Find**. **b.** Click the name of the server whose managed IP phones should be autoregistered. **c.** Uncheck the Auto-registration disabled on this Cisco Unified Communications Manager check box. **d.** Edit the range of values that starts in the Starting Directory Number field and ends in the Ending Directory Number field. **e.** Click **Save**.
Step 5	Define attributes of the emulator phone service.	**a.** Choose **Cisco Unified CM Administration** from the Navigation list, and then click **Go**. **b.** Choose **Device > Device Settings > Phone Services**. **c.** Click **Add New**. **d.** Enter **Enterprise TV** in both of these fields: • Service Name • ASCII Service Name **e.** Enter this URL in the Service URL field: **http://**<*DMM_hostname*>**:8080/etv-remotecontrol-webapp/app/getpin** **f.** Click **Save**.
Step 6	Make the emulator service available to each IP phone that should subscribe to it.	**a.** Choose **Cisco Unified CM Administration** from the Navigation list, and then click **Go**. **b.** Choose **Device > Phone**. **c.** Click **Find**. **d.** Repeat this sequence of actions for each phone that should subscribe to the emulator: **1.** Click the name, in the Device Name (Line) column, of the managed IP phone that you will configure. By default, this name is just SEP prefixed to the MAC address of the phone. Your server might be configured to use some other naming format. **2.** When the page refreshes, choose **Subscribe/Unsubscribe Services** from the Related Links list. A popup window opens. **3.** Choose **Enterprise TV** from the Select a Service List, and then click **Next**. **4.** Choose **Enterprise TV** from the ASCII Service Name list, and then click **Subscribe**. **5.** Verify that the message in the Status area says, “Add successful,” and that the Subscribed Services area includes “Enterprise TV.” **6.** Close the popup window. **7.** Click **Go**.

Note Emulator-related configuration changes that you make on your Cisco Unified Communications Manager server do not become useful until after you also configure DMM-ETV to serve the emulator, and configure at least one IP phone to run the emulator.

Related Topics

- Configuring Emulator Settings in DMM-ETV, page 3-59
- Configuring an IP Phone to Emulate the Remote Control, page 3-60
- Using the Emulator on an IP Phone or a Mobile Phone, page 3-62

Configuring Emulator Settings in DMM-ETV

Procedure

Step 1 Choose **Enterprise TV > Remote Control**.

Tip The first time that you use this feature, you might notice that options are dimmed and not available to you. Click **Save** to activate all options so that you can choose options.

Step 2 Choose an option from the Display Security PIN on screen list, to set how many of your DMPs should support the emulator:

- All DMPs
- Selected DMPs
- None

Tip If you choose None in Step 2, the Display DMP Selections button is dimmed and not available to you. To see and use this button, you must choose either All DMPs or Selected DMPs.

Step 3 If you chose Selected DMPs in Step 2, click **Display DMP Selections** to open a dialog box where you can refine your list of which DMPs should support the emulator. In this dialog box:

a. Use the check boxes to select and deselect DMPs.

b. Click **Save Selection Changes** to save your work, and then click **Close** to dismiss the dialog box. Alternatively, click **Close** to discard your work and close the dialog box.

Step 4 Choose an option from the Security PIN behavior list. Although Enterprise TV randomly generates all of its emulator PINs, the fixed and dynamic types differ in their persistence:

- Fixed—These PINs persist until the PIN management type is changed.
- Dynamic—These PINs expire and then are regenerated after an update interval that you define.

No two DMPs in your network will use the same PIN at any one time.

Step 5 If you chose the dynamic PIN type in Step 4, enter at least one digit in the Security PIN update interval (minutes) field. The interval cannot be any less than 2 min. If you do not enter any value, DMM-ETV uses its factory-default interval of 5 min.

Step 6 Enter a shortened URL in the Access URL field for a page that will redirect ultimately to **http://**<*DMM_hostname*>**:8080/etv-remotecontrol-webapp/app/index.htm**.

Note The shortened URL must not be more than 24 characters long.

Step 7 Click **Save**.
Alternatively, to discard your selections and start over again, click **Cancel**.

Step 8 Deploy the new emulator settings to your DMPs:

a. Choose **Digital Media Players > DMP Manager**.

b. Choose the DMP or DMP group that should use these settings.

c. Choose **ETV-PG** from the Actions list, and then click **Go**.

Related Topics

- Workflow in Cisco Unified Communications Manager to Provision the Emulator for IP Phones, page 3-56
- Configuring an IP Phone to Emulate the Remote Control, page 3-60
- Starting the Emulator on an IP Phone, page 3-61
- Starting the Emulator on a Mobile Phone, page 3-62
- Using the Emulator on an IP Phone or a Mobile Phone, page 3-62

Configuring an IP Phone to Emulate the Remote Control

You can configure a Cisco IP Phone from the 7960 series or the 7970 series to emulate the remote control for Enterprise TV, and then use keys drawn on its touchscreen to choose options from the electronic program guide, change channels, and adjust audio volume levels.

Before You Begin

Complete the workflow in Cisco Unified Communications Manager to provision the emulator to your IP phones.

Procedure

Step 1 Press **Settings** on your Cisco IP phone.

Step 2 Press ****#**.

A confirmation message at the bottom of the touchscreen says, “Settings Unlocked!”

Step 3 Go to **Network Configuration**, and then press **Select**.

Step 4 Go to **Alternate TFTP**, and then press **Yes**.

Tip If Alternate TFTP is not an option in the Network Configuration menu, contact the administrator for Cisco Unified Communications Manager.

Step 5 Click **Save**.

The IP phone is restarted automatically, so that its configuration changes can take effect.

Related Topics

- Workflow in Cisco Unified Communications Manager to Provision the Emulator for IP Phones, page 3-56
- Using the Emulator on an IP Phone or a Mobile Phone, page 3-62

Starting the Emulator on an IP Phone

Before You Begin

- Provision the emulator for use on Cisco IP phones.
- Configure emulator settings in DMM-ETV.
- Configure your IP phone to emulate the remote control.
- Make note of the generated PIN code in the top-right corner of a DMP display that is showing Enterprise TV. The emulator cannot control the corresponding DMP without this PIN.

Procedure

Step 1 Press **Services** on your Cisco IP phone.

Step 2 Highlight the remote control option in the services list, and then press **Select**.

Step 3 Tap the **PIN** field on your touchscreen.

Step 4 Use the keypad to enter the PIN code.

Step 5 Tap **Submit** on the touchscreen.

The touchscreen is refreshed and the emulator starts.

Related Topics

- Workflow in Cisco Unified Communications Manager to Provision the Emulator for IP Phones, page 3-56
- Configuring Emulator Settings in DMM-ETV, page 3-59
- Using the Emulator on an IP Phone or a Mobile Phone, page 3-62

Starting the Emulator on a Mobile Phone

Before You Begin

- Configure emulator settings in DMM-ETV.
- Make note of the generated PIN code in the top-right corner of a DMP display that is showing Enterprise TV. The emulator cannot control the corresponding DMP without this PIN.
- This procedure assumes that you are using a supported platform. To learn which mobile phone platforms we support in this release, see *Release Notes for Cisco Digital Media System 5.x* on Cisco.com. An unsupported platform might not be capable of running the emulator.

Procedure

Step 1 Start the Internet browser on your mobile phone.

Step 2 Go to the URL that you see on the DMP display that is showing Enterprise TV.

You are prompted to enter the PIN.

Step 3 Enter the PIN, and then click **Go**.

The emulator starts.

Related Topics

- Configuring Emulator Settings in DMM-ETV, page 3-59
- Using the Emulator on an IP Phone or a Mobile Phone, page 3-62

Using the Emulator on an IP Phone or a Mobile Phone

Before You Begin

- (**If you will use the emulator on an IP phone**) Complete the workflow in Cisco Unified Communications Manager to provision the emulator to your IP phones.
- Configure emulator settings in DMM-ETV.
- Start the emulator on your phone.

Procedure

Step 1 See *Remote Control Quick Start Guide for Cisco Digital Media Players* on Cisco.com, and pay particular attention to its sections called “Using the Primary Buttons” and “Using the Secondary Buttons.” Their descriptions of the remote control and its effect in a variety of scenarios apply equally to the physical remote control unit and to its emulator.

Note The emulator has fewer buttons than the physical remote control has. You cannot invoke behaviors from the emulator which correspond to any buttons that it does not have.

Related Topics

- Workflow in Cisco Unified Communications Manager to Provision the Emulator for IP Phones, page 3-56
- Configuring Emulator Settings in DMM-ETV, page 3-59
- Starting the Emulator on an IP Phone, page 3-61
- Starting the Emulator on a Mobile Phone, page 3-62

Working with Assets and Categories in Your Media Library

Activation Software feature modules for Cisco DMS are purchased and licensed separately. Features are hidden from all users until you purchase and install the required license to use them, and even then remain hidden from users whose privilege levels are low. To understand feature licenses and learn how to install them, see Managing Licenses for Features and Components of Cisco DMS, page 2-3. To learn how user access to features is restricted by the combination of licenses and user privilege levels, see Understanding User Roles in DMS-Admin, page 2-9. To learn which software feature modules are available for you to purchase, see http://www.cisco.com/go/dms.

To simplify management, you can organize your assets for digital signage and Enterprise TV. We recommend that you create categories for sets of characteristics that your assets have in common—such as their file type, intended audience, or genre.

Note This release does not support audio in Shockwave Flash media. If your media library contains any Shockwave Flash files that use audio, their playback will be silent on your DMP displays.

Before You Begin

To see and use the Media Library, you must be:

- Using a DMM appliance on which a valid license is installed for DMM-DSM.
- Logged in as a user with at least read-only permissions for at least one category.

Procedure

Step 1 Click the **Media Library** tab.

A tree on the left side of the Media Library page names the types of media that are supported and shows the hierarchy of categories that you have created to organize assets without regard for their media type.

Step 2 Click the name of a media type or of a category.

An untitled table on the right side of the page is updated automatically to describe assets of the relevant type that your library contains.

Step 3 (Optional) Use filtering controls above the table, so that it describes only a narrow subset of your assets, based on criteria such as the title, file type, or duration.

Step 4 Enter the values and choose the options that meet your requirements.

Related Topics

- UI Reference: Elements to Manage Assets and Categories, page 3-64
- Understanding Restrictions for Enterprise TV, page 3-33

UI Reference: Elements to Manage Assets and Categories

Navigation Path

Digital Signage > Media Library

Table 3-15 Elements for Managing a Media Library

Element	Icon and Description
Media Types	A complete list of the types of assets that are supported. The supported assets are: • DMP Firmware () • HTML () • Images () • Shockwave Flash () • UDP () • Video () When you click the name of a media type, an untitled table on the right side of the page is updated automatically to describe assets of the relevant type that your library contains.
Categories	A hierarchical list (an object selector) of all categories in your media library. A category can contain assets or it might be empty. You can create new categories, edit existing categories, delete categories, or click a category whose assets the untitled table should describe. You can add almost any number of nested categories to your media library.
	Options—A menu from which you can choose among these options: • **Create Category**—Opens the Add Category dialog box. • **Rename Category**—Opens the Edit Category dialog box. • **Delete Category**—Deletes the category that you highlighted.
	Create Category—Opens the Add Category dialog box.

Table 3-15 Elements for Managing a Media Library (continued)

Element	Icon and Description
Filter by	
*Methods by which you can cause the untitled table to describe only the assets from your media library that match parameters you have specified. Choose the filtering method, specify the parameters, and then click **Go**. You can use only one filter per query. You cannot apply a second filter to results that are already filtered.*	
Title	Enter at least one word that the title contains.
Filename	Enter a string of characters that the filename contains.
Description	Enter at least one word that the description contains.
File Type	Enter the file type to be matched.
Estimated Duration	Enter in hours, minutes, and seconds, the duration to be matched.
Date Modified	Click the first calendar icon ( ) to choose the start date for the range of modification dates to be matched, and then click the second calendar icon to choose the end date for the range.
Owner	Enter the DMM username for the asset owner to be matched.
Source	Choose whether the asset is stored locally (File) or remotely (URL).
Path	Enter a string of characters that the path contains.
untitled table	
Describes all assets contained in the category, or of the media type, that you clicked in the object selector. The table sorts information into columns.	
Asset Title	A unique and human-readable title that you entered.
Filename	The filename for this asset.
File Type	Identifies the format of the asset that the corresponding row describes.
Size	The file size in bytes.
Estimated Duration	The duration value that you entered when you added this asset to your media library, or when you edited attributes of this asset.
Date Last Modified	Time stamp (in the format `DD-MM-YYYY hh:mm:ss`) that says when the file was last modified.
pagination controls	
Buttons and fields clustered under a table, by which you: • Set how many rows a table should show per page before it starts to span multiple pages. • Move from one page to another in a table that spans multiple pages. • Cause the table to show refreshed data.	

Table 3-15 Elements for Managing a Media Library (continued)

Element	Icon and Description
Options	
Choose the option, if any, that meets your requirements	
Add Media Asset	Opens the Add Asset dialog box.
View Media Asset	Opens the View Asset dialog box.
Edit Media Asset	Opens the Edit Asset dialog box.
Remove Media Asset	Deletes the asset that you highlighted.
Add Media Asset	Opens the Add Asset dialog box.
Create Playlist	Opens the New Playlist dialog box in a popup window.

Related Topics

- UI Reference: Elements to Add Categories and Rename Them, page 3-66
- UI Reference: Elements to Add Assets and Edit Their Attributes, page 3-68

UI Reference: Elements to Add Categories and Rename Them

The Add Category and Rename Category dialog boxes help you to manage the categories for organizing assets in your media library.

Navigation Path

- Digital Signage > Media Library > Create Category
- Digital Signage > Media Library > Options > Create Category
- Digital Signage > Media Library > Options > Rename Category

Table 3-16 Elements for Managing Media Library Categories

Element	Description
Name	A unique and human-readable name for a category.
Description	A brief description of the category and its purpose.

About the Maximum File Size for Assets in Your Media Library

- Before you add any asset, confirm that its file size is not more than 1.9 GB, which is the maximum stream size for any asset that you include in the layout for a DMD presentation.
- For purposes of stage-one failover, the combined size of all assets cannot exceed the capacity of the SD card in a DMP. To understand failover, see the “Understanding Content Substitution (Failover)” topic in *User Guide for Cisco Digital Media Player Device Manager 5.1* on Cisco.com.

Adding One Asset at a Time to Your Media Library

Note

- After you start to import an asset, do not click any browser button or navigate away from this page until the import is finished. If you do, the import will not finish successfully.
- We recommend that you do not use your DMM appliance as if it is a storage server. It has limited capacity to store files and DMM might not function as designed if space runs low.

Procedure

Step 1 Click the **Single** tab.

Step 2 Do one of the following in the Source area to specify the full local pathname or remote HTTP URL of the asset:

- Click **URL**, enter the URL, and then check or uncheck the **Download URL** check box to control whether you download a local copy of the asset or use the version of it that is stored remotely. The URL must be encoded properly (using "%20" instead of spaces, for example), according to the principles set forth in RFC 2396.
- Click **Local File**, and then click **Browse** or enter the full local pathname.

Step 3 Choose the option in the File Type area that best describes the asset.

Step 4 Enter a title for the asset.

Step 5 Enter the estimated duration for playback.

Step 6 Choose at least one category.

Step 7 (Optional) Enter a description.

Step 8 (Optional) Enter an owner for the asset.

Step 9 Click **Save**.
Alternatively, to discard your selections, click **Cancel**.

Adding Multiple Assets Simultaneously to Your Media Library

The amount of time that a batch download operation requires depends on the speed of your connection, the number of directory levels that you search for downloadable files, and the total combined file size of all files that you transfer.

Note

- After you start to import an asset, do not click any browser button or navigate away from this page until the import is finished. If you do, the import will not finish successfully.
- We recommend that you do not use your DMM appliance as if it is a storage server. It has limited capacity to store files and DMM might not function as designed if space runs low.

Procedure

Step 1 Click the **Batch** tab.

Step 2 Enter, in the Base URL area, the root-level URL for the batch download operation.

We do not support any use of spaces in URLs.

Step 3 Enter, in the Pattern area, a filename pattern that identifies which files to download.

For example, to download every file that uses the three-letter MPG filename extension, the pattern is ***.MPG**.

Note Do not enter the filename pattern to use any unsupported file type.

Step 4 Make choices and enter values to add assets to your library, and then click **Save**.
Alternatively, to discard your selections, click **Cancel**.

UI Reference: Elements to Add Assets and Edit Their Attributes

Features of the Add Media Asset and Edit Media Asset dialog boxes help you to populate and manage your media library. Options are sorted under two tabs, *Single* and *Batch*, which help you to manage either one asset or multiple assets, respectively.

Navigation Path

- Digital Signage > Media Library > Add Media Asset
- Digital Signage > Media Library > Options > Add Media Asset
- Digital Signage > Media Library > Options > Edit Media Asset

Table 3-17 Elements for Adding and Editing Assets

Element	Description
Single tab	
Elements to add or edit one asset.	
Source	The full local pathname or remote HTTP URL of the asset. We do not support any use of spaces in filenames or URLs.

Table 3-17 Elements for Adding and Editing Assets (continued)

Element	Description
File Type	Choose the type that best describes the asset: • **Video**—A video file in MPEG-1, MPEG-2, or MPEG-4 format. Our support for MPEG-4 requires that you use the MPEG-4 Part 2 or Part 10 (H.264) codec and that you multiplex audio and video in an MPEG-2 Transport Stream. If your DMP is a 4400G, we support MPEG-4 Part 10/H.264 video in MPEG-2 TS. (Neither the 4300G nor the 4305G supports MPEG-4 Part 10/H.264.) The filename extension must be MPG or MPEG and you must enter the estimated duration. • **Shockwave Flash**—An Adobe Shockwave Flash 6, or 7 file if your DMP is a 4300G or a 4305G. Alternatively, if your DMP is a 4400G, and then a file in the format of Shockwave Flash 6, 7, 8, 9, or 10. The filename extension must be SWF and you must enter the estimated duration. This release does not support audio in Shockwave Flash media. If your media library contains any Shockwave Flash files that use audio, their playback will be silent on your DMP displays. • **Images**—A standard image file, such as a nonprogressive JPEG image. The filename extension must be JPG, JPEG, GIF, or PNG. • **HTML**—A web page. The filename extension must be HTM or HTML. • **Firmware**—A firmware or kernel image for the DMP. The filename extension must be FWIMG or BIN for firmware, or TIVELLA for kernels. • **UDP**—The routable IP address and UDP port for a streaming server.
Title	A unique and human-readable name for the asset.
Estimated Duration	The estimated duration for playback, counted in hours, minutes, and seconds.
Category	Describes each of the categories that should contain this asset. To add a category to the list, click **Select Category**.
Description	Optional, brief description of the asset.
Owner	Your name or the name of the person who added the asset.

Batch tab

Elements to add or edit multiple assets simultaneously.	
Base URL	An HTTP URL that points to a directory on a server. The directory that you point to serves as the root-level URL for the batch download operation; every file that you download is retrieved from this directory or from one of its children at a lower level. We do not support any use of spaces in URLs.
Pattern	The filename pattern that identifies which files to download. We do not support any use of spaces in filenames.

Table 3-17 Elements for Adding and Editing Assets (continued)

Element	Description
File Type	Choose the type that best describes these assets: • **Video**[1] — A video file in MPEG-1, MPEG-2, or MPEG-4 format. • **Shockwave Flash**[2] — Any Adobe Shockwave Flash 6, or 7 file if your DMP is a 4300G or a 4305G. Alternatively, if your DMP is a 4400G, any Adobe Shockwave Flash 6, 7, 8, 9, or 10 file. • **Images** — Any standard image file, such as a nonprogressive JPEG image. The filename extension must be JPG, JPEG, GIF, or PNG. • **HTML** — Any web page. The filename extension must be HTM or HTML. • **Firmware** — Any firmware image for the DMP. The filename extension must be FWIMG or BIN for firmware, or TIVELLA for kernels. • **UDP** — The routable IP address and UDP port for a streaming server.
Levels	The number of levels below the specified base URL to search for (and download) files with filenames that match the specified pattern.
Category	Click the name of the one category that should contain these assets.

1. Our support for MPEG-4 requires that you use the MPEG-4 Part 2 or Part 10 (H.264) codec and that you multiplex audio and video in an MPEG-2 Transport Stream. If your DMP is a 4400G, we support MPEG-4 Part 10/H.264 video in MPEG-2 TS. Neither the 4300G nor the 4305G supports MPEG-4 Part 10/H.264. The filename extension must be MPG or MPEG and you must enter the estimated duration.
2. The filename extension must be SWF and you must enter the estimated duration. This release does not support audio in Shockwave Flash media. If your media library contains any Shockwave Flash files that use audio, their playback will be silent on your DMP displays.

Related Topics

- DMP Firmware Upgrade, page 3-117

UI Reference: Elements that Describe and Preview One Asset

The View Asset dialog box describes the attributes of one asset in your Media Library and, in some cases, shows a preview. Attribute information is sorted under two tabs, *Overview* and *Usage*. Click a tab to see the asset attributes that it describes. To close the View Asset dialog box, click **Close**.

Navigation Path

Digital Signage > Media Library > Options > View Media Asset

Table 3-18 Elements for Viewing Asset Attributes

Element	Description
Overview tab	
Attributes that are derived from information in your media library include the elements with these field labels: Title, Description, File Type, Estimated Duration, Owner, Category Names, and Source. To understand these elements, see UI Reference: Elements to Add Assets and Edit Their Attributes, page 3-68. Other elements on the Overview tab are as follows.	
Preview	Either a generic icon that represents the asset type or a thumbnail that you can click to view this asset, assuming that its file type is viewable in your browser.
Path	The full HTTP pathname for this asset.
Size	The file size.

Table 3-18 Elements for Viewing Asset Attributes (continued)

Element	Description
Playlist Count	The total count of playlists that contain and are dependent upon this asset. To learn more about these playlists, click the **Usage** tab.
Presentation Count	The total count of presentations that contain and are dependent upon this asset. To learn more about these presentations, click the **Usage** tab.
Date Modified	Time stamp (in the format `DD-MM-YYYY hh:mm:ss`) that says when the file was last modified.

Usage tab

*Shows either the Playlists for Asset table or the Presentations for Asset table, depending on whether you click **Playlist** or **Presentation**, respectively. The table sorts information into the following columns.*

Name	The name of the presentation or the playlist that is dependent upon this asset.
Time Referenced	The total count of instances when the described presentation or playlist includes this asset.
Date Modified	Time stamp (in the format `DD-MM-YYYY hh:mm:ss`) that says when the described presentation or playlist was last modified.

Understanding the Two Types of Playlists for Digital Signage

DMM-DSM provides two ways to populate playlists for use in your digital signage network.

The first type is simply called a *playlist*. You create this type outside Digital Media Designer (DMD) and you can schedule it to play either as a standalone event or within a presentation that you design in DMD.

The second type is called a *presentation playlist*. You create this type inside DMD and include it within a presentation that you design in DMD. You **cannot** schedule this type to play as a standalone event.

Related Topics

- Creating and Organizing Presentation Playlists, page 3-90
- Creating and Organizing Ordinary Playlists, page 3-94

Working with Presentations, Templates, and Presentation Playlists for Digital Signage

Digital Media Designer (DMD) is a powerful, drag-and-drop design tool that helps you to create customized presentations for digital signage. Cisco provides predesigned assets that you can use as a jumping-off point for your designs or you can create designs that are entirely your own. DMD supports horizontal and vertical screen orientations. With DMD, you:

- Subdivide the screen space on a DMP display into rectangular areas called *screen zones*.
- Choose the media objects, called *assets*, to play back in those screen zones—including media from digital video files, JPEG files, SWF files, RSS feeds, ordinary web pages, and other popular media types.
- Add assets to, and configure the timeline for, any screen zone that represents a *presentation playlist*.

Although you use your browser to start DMD, it runs outside your browser, in Java Web Start. You can open and work with only one template or one presentation at a time. Presentations for digital signage most commonly divide screen space into two, three, or four screen zones, but you can create more zones for a presentation in DMD if you need more.

After you create, edit, and save a presentation, you can deploy it to your DMPs from the scheduler. Each affected DMP then restarts automatically before it starts to show the presentation. To learn how to deploy a presentation to your DMPs, see Scheduling Time Slots for Media and Events on DMPs, page 3-130.

This section contains these topics:

- Before You Start to Use Digital Media Designer, page 3-72
- Getting Started with DMD, page 3-74
- DMD User Interface Reference, page 3-76
- Creating and Organizing Presentation Playlists, page 3-90
- Creating and Organizing Ordinary Playlists, page 3-94

Before You Start to Use Digital Media Designer

Use the following checklist to track your compliance with the requirements and recommended best practices for using DMD successfully.

✓	Requirements and Recommendations
	Prerequisites
❑	1. **Ensure that Java Runtime Engine (JRE) 1.6.0 or later is installed on your PC.** Also confirm that it is configured to use English as its language, and that it is working correctly. The JRE 1.6.0 release is part of Java Version 6. • To learn exactly which JRE release you are using and to confirm that it is working correctly, go to http://java.com/en/download/help/testvm.xml. • To understand the Java release naming conventions, which have changed over time, see http://java.sun.com/javase/namechange.html. • To obtain the required JRE, go to http://javasoft.com, click **Java SE**, and then download the latest JRE version. • Apple maintains and distributes its own implementations of Java software for Mac OS users. To learn if Apple has made available any JRE that is based on JRE 1.6.0, see http://www.apple.com/java. Alternatively, registered Apple Developer Connection (http://connect.apple.com/) members might find that Apple has released a preview version of a compatible JRE. We make no claims about the suitability of such software for any purpose and recommend that you test all software thoroughly before you rely on it.
❑	2. If you use Windows, choose **Start > Settings > Control Panel > Internet Options**, and then click the **Advanced** tab. Scroll to the Browsing area, *uncheck* the **Enable third party browser extensions (requires restart)** check box, and then click **OK**.

✓	Requirements and Recommendations

❑	3. **Ensure that your DMPs use the latest firmware and kernel versions.**
	
	To check the firmware version on a DMP, log in to its local instance of DMPDM, and then click **About**. If you see that you must upgrade the firmware, installable files are located on the software CD that you received from Cisco after you:
	
	• Purchased DMM-DSM 5.1.
	• Paid to upgrade from an earlier release.
	• Used the Product Upgrade Tool (http://www.cisco.com/upgrade) to verify that your valid SAS contract for an earlier Cisco DMS release entitles you to upgrade DMM-DSM and your DMPs at no additional cost.
	
	These files are not available for download from Cisco.com.
	
	• On DMP 4300G endpoints, install:
	  • **5.1.0_FCS_4300.fwimg**
	  • **DMPkernel_A1_4300.tivella**
	• On DMP 4305G endpoints, install:
	  • **5.1.0_FCS_4305.fwimg**
	  • **DMPkernel_A1_4305.tivella**
	• On DMP 4400G endpoints, install **5.1.0_FCS_4300.fwimg**
	
	Although the kernel version does not affect your use of DMD directly, an outdated kernel version can interfere with your ability to use network storage servers and content-delivery networks successfully with DMP 4300G and 4305G endpoints. This disruption might cause playback to fail on DMP displays for your digital signage presentations.
	
	To learn how to install firmware on a DMP, see DMP Firmware Upgrade, page 3-117.

❑	4. **You must enable popup windows in your web browser.** See the manufacturer documentation for your browser and for any installed third-party browser extensions, such as toolbars that provide popup-blocking features.
❑	5. **You must already have created and saved the media files that your presentation will show.** See Working with Assets and Categories in Your Media Library, page 3-63.
❑	6. **Confirm that none of the** *individual* **assets that you will show has a file size any larger than 1.9 GB.** If any file has a larger file size, the presentation that should show the file shows nothing and your DMP device logs will describe many errors. This size is constrained by the limits of streaming.

✓	Requirements and Recommendations
❑	**7.** Make note of the combined file size for the assets in your presentation. If you will use DMS-CD or the advanced task called "File Transfer to DMP or Server" to deploy your presentation to the SD memory card inside a DMP, confirm that the combined file size for all assets that you will show in the presentation is not *collectively* any larger than: • **For playback on a DMP 4300G**—900 MB. • **For playback on a DMP 4305G**—1.9 GB. • **For playback on a DMP 4400G**—3.8 GB. This size is constrained by the storage capacity of the SD memory card in a DMP, and might be less than stated here if you also have deployed assets for emergency notification. You should consider thoughtfully the storage capacity implications on any DMP where you have deployed assets for ordinary events *and* emergencies. If you deploy a presentation to the SD memory card, the assets from that presentation will serve as the basis for stage-one failover on that DMP. If the combined file size for a presentation is too large, only stage-two failover is available. To check the free space on the SD memory card in a DMP, log in to its local instance of DMPDM, and then click **Internal Storage**. See the "Understanding Content Substitution (Failover)" topic in *User Guide for Cisco Digital Media Player Device Manager 5.1* on Cisco.com.

Recommended Best Practices

❑	**8.** **Understand the factors that can interfere with smooth playback in streaming media.** Playback of media in a presentation might be slow or jerky or might fail if: • You neglect to carefully consider the network bandwidth requirements and DMP memory and CPU requirements for the sum total of all assets that you will play simultaneously in a presentation. • Your presentation uses too many processor-intensive assets. Remember that some file types (SWF, for example) are more likely than others to require extra processing to play back. • Your presentation uses asset formats that we do not support. • You used incorrect settings when you encoded video for streaming.
❑	**9.** **Understand the effects on your presentations of the "safe area" on your DMP displays.** If you use analog DMP displays that are old or inexpensive, be sure that your presentations for signage do not extend past the dotted line in DMD that designates the *safe area* all around the edge of a screen object. The safe area helps you to compensate for such displays, which use only approximately 90 percent of their screens.

Getting Started with DMD

You can create the layout for a new presentation or edit a presentation that you created previously.

Procedure

Step 1 To start Digital Media Designer so that you can define a set of screen zones, choose **Digital Signage > Presentations**, and then click **Start Digital Media Designer**.

Step 2 When prompted, choose the option to use Java Web Start.

DMD opens.

In DMD, choose the options and enter the values that meet your requirements. To understand the options, see DMD User Interface Reference, page 3-76.

Step 3 To save your work in DMD when you are done, choose **File > Save**.

Step 4 To close DMD when you are done, choose **File > Exit**.

Step 5 (Optional) Deploy the presentation to a DMP group. See Scheduling Time Slots for Media and Events on DMPs, page 3-130.

Note

- To show a presentation during stage-one failovers on a DMP, you must first do one of the following:
  - Use DMS-CD. See Using DMS-CD Deployment Packages to Provision Assets to DMPs, page 3-105.
  - Create and deploy a "File Transfer to DMP or Server" task that saves copies of the presentation and its assets to the SD memory card inside the DMP. When you do this, DMM-DSM automatically creates a "(Go to) URL" task.

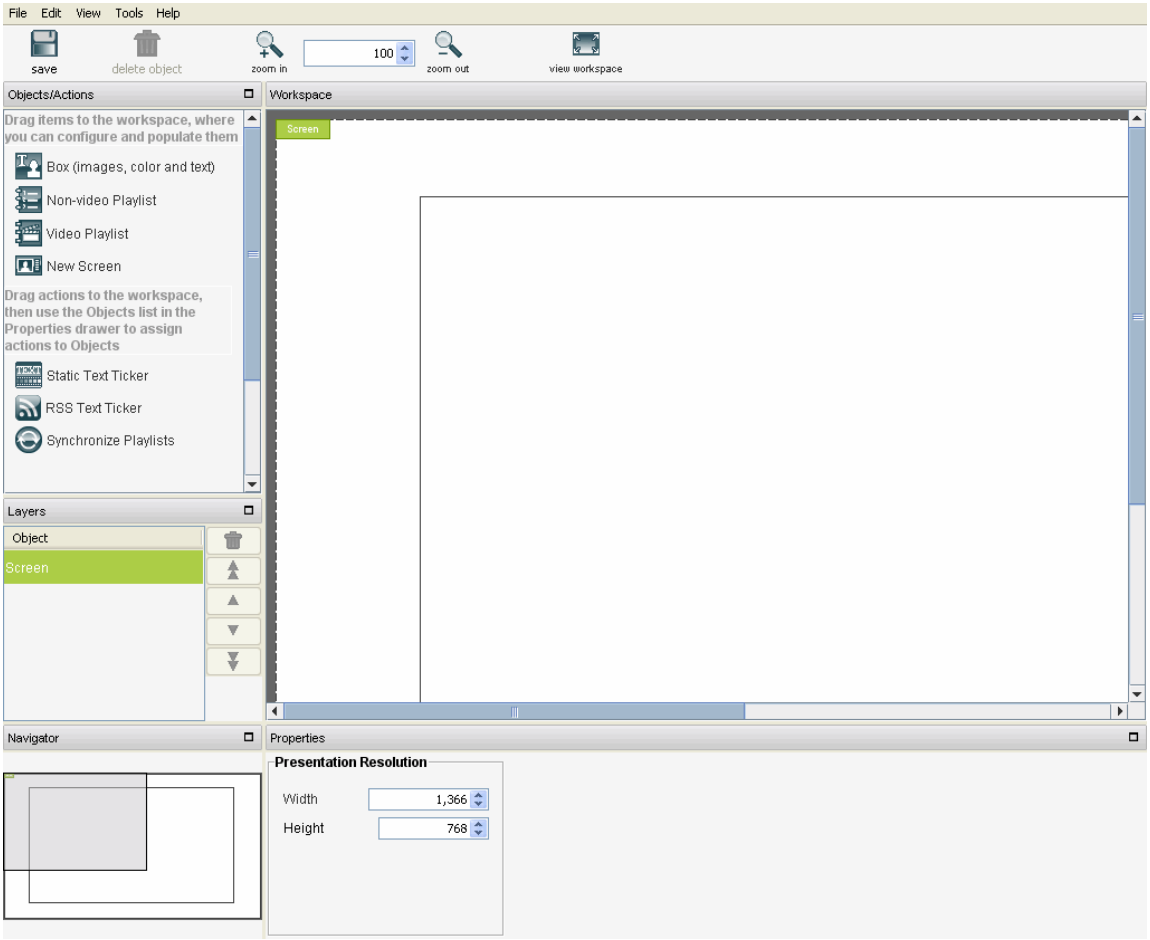
    The name by default for this generated "(Go to) URL" task is "LOCAL - <*name_of_presentation*>" unless you checked the Emergency/Alarm check box, in which case the name is "ALARM - <*name_of_presentation*>."

    If a DMP should show its locally stored presentation at any time other than during stage-one failover, you must deploy the corresponding "(Go to) URL" task to the DMP. See Scheduling Time Slots for Media and Events on DMPs, page 3-130.
- After you delete a presentation for which DMM-DSM automatically generated a corresponding (Go to) URL task, you must also delete that task.

DMD User Interface Reference

Figure 3-6 on page 3-76 shows the Digital Media Designer user interface as it looks when you first open it in Java Web Start.

Figure 3-6 Digital Media Designer



In Digital Media Designer, the *workspace* is the largest part of the user interface. After you enter values for it so that it has the same height and width in pixels as the screen on your DMP display, the workspace is the canvas where you design your presentations and presentation templates for digital signage.

In addition to its workspace, the user interface in Digital Media Designer consists of four menus, a toolbar, and four dockable panels.

- Understanding the Menus and Their Options, page 3-77
- Understanding the Toolbar and Its Options, page 3-80
- Understanding the Panels and Their Options, page 3-81

Understanding the Menus and Their Options

Table 3-19 on page 3-77 describes the menus in Digital Media Designer.

Table 3-19 Digital Media Designer Menus

Menu Option	Description
File Menu	
New	Shows the New Design/Template dialog box, which lists all of the templates that you have saved as well as all of the presentation templates that Cisco provides with DMD, minus any presentation templates that you have deleted. Click the template that meets your requirements, such as the template that contains only a blank canvas. To start work on your design, click **OK**. Alternatively, click **Cancel** to discard your selections and return to the canvas. • {**Landscape** | **Portrait**}—Click a tab so that you can choose or configure preliminary options for a design that will use the corresponding orientation. • *untitled table*—Most rows describe one presentation template apiece that you can use as the basis for a new presentation or as the basis for a new presentation template. Alternatively, you can choose the blank canvas that one row describes. (The blank canvas is described, by default, in the first row.) To re-sort the table by the attributes that the *Thumbnail*, *Screen Resolution*, *Name*, or *Description* columns show, click the corresponding column heading. Click a row to choose the presentation template or the blank canvas that the row describes. • **Filter**—Enter any part of a presentation template name to filter out from the table all presentation templates whose descriptions do not match your text string. The filtering occurs in real time as you enter text. • **Resolution**—Enter the resolution width and height in pixels that your presentation design will use. This feature is available only after you choose to use a blank canvas. To learn the native resolution for a display, see its manufacturer documentation.
Open	Shows the Open dialog box, which lists all of the presentations and presentation templates that you have saved, in addition to the presentation templates that Cisco provides with DMD, minus any presentations or presentation templates that you have deleted. To open a design so that you can review or change it, choose it, and then click **OK**. Alternatively, to return to the canvas without opening a design, click **Cancel**. • {**Presentations** | **Presentation Templates**}—Click a tab to restrict the type of designs that the table should describe. • *untitled table*—Each row describes one design. To re-sort the table by the attributes that the *Thumbnail*, *Screen Resolution*, *Name*, or *Description* columns show, click the corresponding column heading. Click a row to choose the presentation or the presentation template that the row describes. • **Filter**—Enter any part of a design name to filter out from the table all of the saved designs whose descriptions do not match your text string. The filtering occurs in real time as you enter text.

Table 3-19 Digital Media Designer Menus (continued)

Menu Option	Description
Save	One of these: • If you are designing a presentation that you have not yet saved and named, opens the Save Presentation dialog box. Choose the options and enter or confirm the values that meet your requirements: – **Name**—A unique and human-readable name for the presentation. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled. The name cannot be any more than 50 characters long. – **Description**—A brief description of the presentation and its purpose. – **Resolution**—Shows in pixels the width and height that your design will require as a supported resolution on your DMP display. Uses this syntax: *NNNN*x*NNN*. For example, 1366x768 would specify a display that can show as many as 1,366 pixels horizontally and as many as 768 pixels vertically. Confirm that the values you see are not any greater than what your DMP display can actually show. – **Presentation**—Identifies the layout as a one-time design. A presentation is a design that uses a freeform layout or uses a layout derived from a presentation template. – **Presentation Template**—Identifies the layout as a foundational design. A presentation template is the basis, potentially, for multiple presentations that you expect to create in the future, which all will share a common look and feel. When you are done, click **OK** to save your work. Alternatively, click **Cancel** to discard your work. • If you are working on a layout that you saved previously, saves your work since then.
Save As	Opens the "Save As Presentation or Presentation Template" dialog box, so that you can save multiple variants of a presentation or a template, or so you can overwrite a saved presentation or saved presentation template that you no longer need. Choose the options and enter or confirm the values that meet your requirements: • {**Presentations** | **Presentation Templates**} tab—Determines whether the table under the tab shows information about your saved presentations or about your saved presentation templates. Each row in the table shows a thumbnail picture of the corresponding design and describes its attributes. • **Name**—A unique and human-readable name for the design. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled. • **Description**—A brief description of the design and its purpose. • {**Resolution** | **Screen Resolution**}—Shows in pixels the width and height that your design will require as a supported resolution on your DMP display. Uses this syntax: *NNNN*x*NNN*. For example, 1366x768 would specify a display that can show as many as 1,366 pixels horizontally and as many as 768 pixels vertically. Confirm that the values you see are not any greater than what your DMP display can actually show. • **Presentation**—Select this radio button to identify the layout as a one-time design that uses a freeform layout or a layout that you will derive from a presentation template. • **Presentation Template**—Select this radio button to identify the layout as a foundational design. A presentation template is the basis, potentially, for multiple presentations that you expect to create in the future, which all will share a common look and feel. When you are done, click **Save** to save your work. Alternatively, click **Close** to discard your work.

Table 3-19 Digital Media Designer Menus (continued)

Menu Option	Description
Delete Presentation/ Template	Shows the Delete Presentation(s) and/or Presentation Template(s) dialog box, which lists all of the presentations and presentation templates that you have saved, in addition to the presentation templates that Cisco provides with DMD, minus any presentations or presentation templates that you have already deleted. • {**Presentations** | **Presentation Templates**}—Click a tab to restrict the type of designs that the table should describe. • *untitled table*—Each row describes one design. To re-sort the table by the attributes that the *Thumbnail*, *Screen Resolution*, *Name*, or *Description* columns show, click the corresponding column heading. Click a row to choose the presentation or the presentation template that the row describes. • **Filter**—Enter any part of a design name to filter out from the table all of the saved designs whose descriptions do not match your text string. The filtering occurs in real time as you enter text. To delete a design, choose it, and then click **Delete Selected Presentation**. To return to the canvas whether or not you have deleted any designs, click **Close**.
Rename Presentation/ Template	Shows the Rename dialog box, which you can use in conformance to this recommended best practice: "Instead of creating a presentation that is similar to one that used to be in your schedule, simply modify the old presentation and reschedule it. "
Exit	Closes DMD.
Edit Menu	
Whole Screen	Expands the selected object so that its height and width become the same as the total height and width of your presentation. To reduce its dimensions again if you prefer to use smaller dimensions, edit the height and width values that the Properties panel shows for the selected object. This feature is not available for you to use unless at least one object is selected on the workspace or in the Layouts panel.
Safe Area	Expands the selected object so that its height and width become the same as the height and width of the safe area in your presentation. To change its dimensions again, edit the height and width values that the Properties panel shows for the selected object. This feature is not available for you to use unless at least one object is selected on the workspace or in the Layouts panel.
Delete	Deletes the selected object or action from the workspace. This feature is not available for you to use unless at least one object or action is selected on the workspace or in the Layouts panel.
Up	Moves the selected object up by one layer, in the sense that your presentation might position overlapping screen zones as if they are stacked or piled on top of each other. When you use this option, you make the selected screen zone more prominent than it was before you moved it. This feature is not available for you to use unless at least one object is selected on the workspace or in the Layouts panel.
Down	Moves the selected object down by one layer. When you use this option, you make the selected screen zone less prominent than it was before you moved it. This feature is not available for you to use unless at least one object is selected on the workspace or in the Layouts panel.
Top	Moves the selected object to the top layer. When you use this option, the effect is that you make the selected screen zone more prominent than *every other* screen zone. This feature is not available for you to use unless at least one object is selected on the workspace or in the Layouts panel.
Bottom	Moves the selected object to the bottom layer. When you use this option, the effect is that you make the selected screen zone *least* prominent of all your screen zones. This feature is not available for you to use unless at least one object is selected on the workspace or in the Layouts panel

Table 3-19 Digital Media Designer Menus (continued)

Menu Option	Description
View Menu	
{Objects/ Actions | Layers | Navigator | Properties}	Expands or collapses the respective panel. To understand the panels, see Understanding the Panels and Their Options, page 3-81.
Tools Menu	
Add Action >	As described in the "UI Reference: Elements for Objects and Actions" section of Table 3-21 on page 3-87: • {**Static** | **RSS**} **Text Ticker** • **Synchronize Playlists**
Add Object >	As described in the "UI Reference: Elements for Objects and Actions" section of Table 3-21 on page 3-87: • **Screen** • **Box** • **Video Playlist** • **Nonvideo Playlist**

Understanding the Toolbar and Its Options

The toolbar in DMD contains buttons that you click and controls for the degree of workspace magnification. To understand the toolbar, see Table 3-20.

Table 3-20 Digital Media Designer Toolbar

Icon	Tool Name	Description
	Save Changes	Saves your work.
	Delete Selected Object	Deletes from your design the one object or action that is selected on the workspace.
	Zoom In	Increases the degree of magnification by 10 percentage points per click.
	Incremental Zoom	Increases or decreases the degree of magnification by 1 percentage point per click, depending respectively on whether you click the arrow head that points up or the arrow head that points down. Alternatively, you can do either or both of the following: • Use the scroll wheel on your mouse to increase or decrease the degree of magnification. • Enter any percentage value in the unlabeled field, and then press **Enter**.
	Zoom Out	Decreases the degree of magnification by 10 percentage points per click.
	View Workspace	Increases or decreases the degree of magnification by whatever percentage amount is necessary to fit the entire screen object inside the visible workspace.

Understanding the Panels and Their Options

Panels are dockable controls in the Digital Media Designer user interface that you can move, resize, expand, or collapse, which contain features to help you design presentations for digital signage. All panels are opened by default. To understand how to use the features of a particular panel, see:

- UI Reference: Elements for Objects and Actions, page 3-87
- Understanding the Layers Panel and Its Options, page 3-88
- Understanding the Navigator Panel and Its Options, page 3-89
- Understanding the Properties Panel and Its Options, page 3-89

Moving Panels

To move a panel so that its location is more convenient to you, drag it by its title bar to the location that you prefer. The only constraint when you move a panel is that one side of it will always be pinned to the workspace. DMD rearranges and resizes the other panels automatically to create an open space for the panel that you are moving.

Resizing Panels

To change the width or height of a panel, click and drag the vertical or the horizontal border between it and the workspace. The width or height of nearby panels changes automatically in response.

Collapsing and Expanding Panels

- To collapse a panel, click the square button at the right end of its title bar. In its collapsed form, the entirety of a panel is reduced to button form, where the button shows nothing except the panel name in very small type and is pinned to one edge of the DMD window.
- To reopen a panel temporarily after you collapse it, click where you see its name pinned to the edge of the DMD window. After you move your mouse away from the panel, it closes again automatically.
- To reopen a panel that you collapsed, click where you see its name pinned to the edge of the DMD window, and then click the square button at the right end of its title bar.

Using Box Objects

Procedure

Step 1 Drag a box object ( ) to the workspace from the Objects/Actions panel to start using it. Alternatively, choose **Tools > Add Object > Box**.

Step 2 Click the box object on the workspace.

Step 3 Choose options and enter values in the Properties panel to start populating and configuring your box object.

Tip When you choose which layer to use for a box object in your presentation, ensure that you choose a layer that is lower than *any* layer that your playlist objects use in the same presentation. Otherwise, your DMP displays will not show the screen zone that the box object represents.

If you right-click a box object after it is part of your presentation, a shortcut menu appears. To understand its options, see the "Edit Menu" section in Table 3-19 on page 3-77.

Related Topics

- Understanding the Properties of a Box Object That is Associated with a Ticker Action, page 3-82
- UI Reference: Elements for Objects and Actions, page 3-87
- Understanding the Layers Panel and Its Options, page 3-88
- Understanding the Properties Panel and Its Options, page 3-89.

Understanding the Properties of a Box Object That is Associated with a Ticker Action

When you associate a box object with a ticker action, the Properties panel values that you see might be confusing for the box object after you click it on the workspace. Furthermore, these confusing attributes in the Properties panel differ according to which type of ticker action you use.

- When you use a static ticker, there are two possible scenarios:
  - In the first scenario, you enter Properties panel text for the box object but *not* for the ticker action, so the ticker shows the text that you entered for the box object because it has no alternative.
  - In the second scenario, you enter Properties panel text separately for both the box object *and* the ticker action, and the ticker ignores the text that you entered for the box object because instead, it shows the text that you entered for the ticker action. In that case, even though you can see in the Properties panel that you entered text for your box object, DMD ignores that text.
- When you use an RSS ticker, there is only one relevant scenario—assuming that the server for your RSS feed is reachable and configured correctly. The RSS ticker always shows what it receives from the RSS server, without regard for any text that you might have entered in the Properties panel after you selected your box object on the workspace or in the Layouts panel. Even though you can see in the Properties panel that you entered text for your box object, DMD ignores that text.

Working with Presentation Playlists

Tip If you include a bitmapped image as part of a playlist in DMD, be sure that the playlist object uses the same height and width in pixels that the bitmapped file uses. If the playlist object is too small, the bitmapped image that it includes will be cropped. The bitmapped will not be resized or scaled automatically.

- Using Nonvideo Playlist Objects, page 3-83
- Using Video Playlist Objects, page 3-83
- Synchronizing the Playback Timing of Two Playlists, page 3-84
- Understanding the Properties of Two Playlist Objects That Are Synchronized, page 3-84

Using Nonvideo Playlist Objects

A presentation can contain any number of nonvideo playlist objects at a time, and you can place this object type on any layer in your presentation.

Procedure

Step 1 Drag a nonvideo playlist object ( ) to the workspace from the Objects/Actions panel to start using it.

Alternatively, choose **Tools > Add Object > Nonvideo Playlist**.

Step 2 Click this object on the workspace or in the Layouts panel.

Step 3 Choose options in the Properties panel to populate and configure this object.

For example, the Properties panel is where you define the playback sequence for a playlist and define the playback duration for each entry that it contains.

Tip If you right-click a playlist object on the workspace, a shortcut menu appears, from which you can choose options to edit the playlist.

Related Topics

- Creating and Organizing Presentation Playlists, page 3-90
- Synchronizing the Playback Timing of Two Playlists, page 3-84
- Edit Menu, page 3-79
- UI Reference: Elements for Objects and Actions, page 3-87
- Understanding the Layers Panel and Its Options, page 3-88
- Understanding the Properties Panel and Its Options, page 3-89

Using Video Playlist Objects

You can place a video playlist object on any layer. However, when you use this object type, it becomes the topmost layer automatically. Other object types (nonvideo playlist objects and box objects) are rendered in back of the video playlist object, which means that you cannot use them to create an overlay or mask for video.

Tip To use an overlay of that kind, we recommend that you encode the video file itself so that it includes an overlay before you add it to your media library. Alternatively, you can use JavaScript to create a presentation outside of DMD.

A presentation cannot contain any more than *one* video playlist object at a time.

Procedure

Step 1 Drag a video playlist object ( ) to the workspace from the Objects/Actions panel to start using it.

Alternatively, choose **Tools > Add Object > Video Playlist**.

Step 2 Click the object on the workspace, and then use the Properties panel to populate and configure it.

For example, the Properties panel is where you define the playback sequence for a playlist and define the playback duration for each entry that it contains.

Tip If you right-click a playlist object on the workspace, a shortcut menu appears, from which you can choose options to edit the playlist.

Related Topics

- Creating and Organizing Presentation Playlists, page 3-90
- Edit Menu, page 3-79
- UI Reference: Elements for Objects and Actions, page 3-87
- Understanding the Layers Panel and Its Options, page 3-88
- Understanding the Properties Panel and Its Options, page 3-89

Synchronizing the Playback Timing of Two Playlists

You can use a synchronization action to bind two playlist objects together in a presentation, imposing the playback timing from the *primary* playlist on, and overriding, the playback timing for the *secondary* playlist. In this way, you can synchronize transitions in two playlists, no matter how asynchronous those transitions would be ordinarily.

Procedure

Step 1 To add the potential for synchronization to your presentation, drag a Synchronize Playlists action to the workspace from the Objects/Actions panel.

Alternatively, choose **Tools > Add Action > Synchronize Playlists**.

Step 2 In the Properties panel:

a. Choose the primary playlist object from the Primary Playlist list.

b. Choose the secondary playlist object from the Secondary Playlist list.

Related Topics

- Using Nonvideo Playlist Objects, page 3-83
- Understanding the Properties of Two Playlist Objects That Are Synchronized, page 3-84
- UI Reference: Elements for Objects and Actions, page 3-87
- Understanding the Layers Panel and Its Options, page 3-88
- Understanding the Properties Panel and Its Options, page 3-89

Understanding the Properties of Two Playlist Objects That Are Synchronized

The Properties panel values that you see for a selected playlist object (or) might be confusing if you have used a synchronize playlists action ( ) to override the natural timing of transitions between assets in the playlist.

To avoid this potential for confusion, plan ahead, by keeping in mind the eventual synchronization of two playlists when you populate them and configure the playback duration for each asset. Otherwise, synchronization might truncate the playback for one or more assets in the secondary playlist.

Related Topics

- Using Nonvideo Playlist Objects, page 3-83
- Using Video Playlist Objects, page 3-83
- Synchronizing the Playback Timing of Two Playlists, page 3-84
- Synchronize Playlists, page 3-88
- UI Reference: Elements for Objects and Actions, page 3-87
- Understanding the Properties Panel and Its Options, page 3-89

Using New Screen Objects to Clear the Workspace and Discard Any Unsaved Work

Caution Completing this procedure closes the active presentation in DMD and discards all unsaved work in it.

Procedure

Step 1 Drag a new screen object ( ) to the workspace from the Objects/Actions panel.

Alternatively, choose **Tools > Add Object > New Screen**.

Step 2 Confirm, when DMD asks you, that you really *do* want to proceed.

The workspace is cleared and all unsaved work is discarded.

Related Topics

- UI Reference: Elements for Objects and Actions, page 3-87

Using RSS Feeds and Causing Text to Fade or Scroll

- Understanding the DMD Concepts that Apply to Text Actions, page 3-86
- Using Static Text Actions, page 3-86
- Using RSS Text Actions, page 3-87

Understanding the DMD Concepts that Apply to Text Actions

dynamic text — Any message that is obtained from a an RSS feed and which is automatically replaced by a newer message after:

- The author publishes an updated RSS feed.
- A DMP receives this updated version.

Furthermore, the message populates a ticker.

Even though 'dynamic text' has had fading or motion effects applied to it, these effects are not what we mean when we say *dynamic*.

static text — Any message that is repeated forever or until you enter a new message manually replace the older message. Furthermore, the message populates a ticker.

For our purposes, the term 'static text' does not mean text that is motionless.

ticker — The text of any message that fades in and out or scrolls (vertically or horizontally), depending on the capacity of a DMP that loads it for playback. Furthermore, the on-screen region that shows this text was defined in DMD as part of the layout for a presentation.

For our purposes, the word 'ticker' is not limited to—and does not promise—horizontal scrolling in the style of a ticker tape.

Using Static Text Actions

You can add the potential for a static text ticker to your presentation, and then associate this action with a box object. You can use only one ticker per box object.

Procedure

Step 1 Drag a static text ticker action ( ) to the workspace from the Objects/Actions panel.

Alternatively, choose its type from the Tools menu. The size and placement of this action on the workspace do not matter because actions do not, by themselves, occupy any space.

Step 2 Click the action on your workspace.

Step 3 In the Properties panel:

a. Enter text for your ticker in the Text field.

b. From the Assign to Object list, select the box object that should contain the ticker.

Related Topics

- Using RSS Text Actions, page 3-87
- UI Reference: Elements for Objects and Actions, page 3-87

Using RSS Text Actions

You can add the potential for an RSS text ticker to your presentation, and then associate this action with a box object. You can use only one ticker per box object.

Procedure

Step 1 Drag an RSS text ticker action ( ) to the workspace from the Objects/Actions panel.

Alternatively, choose its type from the Tools menu. The size and placement of this action on the workspace do not matter because actions do not, by themselves, occupy any space.

Step 2 Click the action on your workspace.

Step 3 In the Properties panel:

a. Enter the RSS feed source URL for your ticker in the RSS URL field.

The feed that you specify should be one that does not include any file enclosures. We recommend as a best practice that you use only RSS feeds over which you have direct editorial control.

b. Choose the box object from the Assign to Object list that should contain this ticker.

An RSS ticker action will not show data from feed on your DMP displays until you finish configuring the association between the action and the object, save your work, and deploy it to DMPs. Your DMPs will check the RSS feed for updated content and refresh the ticker every 15 minutes.

Related Topics

- Using Static Text Actions, page 3-86
- UI Reference: Elements for Objects and Actions, page 3-87

UI Reference: Elements for Objects and Actions

An action is a behavior that you can add to an object in your presentation. Each object occupies a layer.

Table 3-21 Digital Media Designer — The Objects/Actions Panel

Icon	Tool Name	Description
	Box	Creates a new screen zone and a new layer where you can show: • One bitmapped image in JPEG, GIF, or PNG format. (Other file types are not supported.) If you place a bitmapped image in a box object, be sure that the box object uses the same height and width in pixels that the bitmapped file uses. If the box object is too small, the displayed image will be cropped. It will not be resized or scaled automatically. • One text string. The string can be completely motionless and presented without any visual effects when you show it on a DMP display or you can show it in the form of a ticker.) • One background color.
	Nonvideo Playlist	Creates a new screen zone and a new layer where you can arrange and play back in any combination an ordered sequence of: • JPEG, GIF, and PNG files. • SWF files. • Pages on web servers.

Table 3-21 Digital Media Designer — The Objects/Actions Panel (continued)

Icon	Tool Name	Description
	Video Playlist	Creates a new screen zone and a new layer where you can arrange and play back in any combination an ordered sequence of: • Video files: – MPEG-1 and MPEG-2 files for all DMP model types. – MPEG-4 part 10 H.264 files on the DMP 4400G model exclusively. • Multicast video streams. • SWF files. • JPEG, GIF, and PNG files. • Pages on web servers.
	New Screen	Restarts your design process by closing the open presentation—discarding any design work in it that you have not saved—and showing to you a completely new representation of a blank DMP display as your workspace. Because each presentation and each presentation template can contain only one screen, the new workspace does not have any objects, actions, or playlists associated with it—even if the closed presentation used them.
	Static Text Ticker	Places a static ticker action on your workspace. A ticker action will not produce a visible ticker on your DMP displays until you finish configuring the association between the action and the object, save your work, and deliver your presentation to a DMP as part of a scheduled deployment.
	RSS Text Ticker	Places an RSS ticker action on your workspace. Its size and placement on the workspace do not matter because actions do not, by themselves, occupy any space on a screen.
	Synchronize Playlists	Places a synchronization action on your workspace. Its size and placement on the workspace do not matter because actions do not, by themselves, occupy any space on a screen.

Understanding the Layers Panel and Its Options

The Layers panel lists all of the objects that you have dragged to your workspace, sorted by their placement on different layers. Each layer holds one object only, and each object represents one screen zone.

- The object at the bottom of the list is also the screen zone that is behind or under all of your other screen zones in this presentation.
- The object at the top of the list is also the screen zone that is in front of or on top of all of your other screen zones in this presentation.
- If you select an object in the list, you can use buttons in the Properties panel to manipulate the selected object.

Table 3-22 Digital Media Designer — The Layers Panel

Icon	Tool Name	Description
	Remove	Deletes the selected object.
	Bring to Front	Moves the selected object to the absolute top layer.
	Move Up	Moves the selected object up by one layer per click.

Table 3-22 Digital Media Designer — The Layers Panel (continued)

	Move Down	Moves the selected object down by one layer per click.
	Send to Back	Moves the selected object to the absolute bottom layer.

Understanding the Navigator Panel and Its Options

The Navigator panel shows a wireframe thumbnail view of, and scrolling controller for, your workspace in DMD. The Navigator panel is especially useful when you design presentations for high-definition DMP displays, because you might not be able to see the entire design all at one time in the workspace area.

To scroll the workspace vertically and horizontally, click and move the small gray rectangle from place to place inside the Navigator panel.

Understanding the Properties Panel and Its Options

Shows the editable and uneditable properties of the selected object or action. The type of properties that you see depend on the type of object or action that you select on the workspace or in the Layouts panel.

Table 3-23 Digital Media Designer — The Properties Panel

Element	Icon and Description
Border {Style | Width | Color}	Choose options to define the border attributes, if your box object should be enclosed in a border.
Assign to Object	Select the box object that represents the screen zone where the selected ticker action should show its ticker.
Duration	Shows the playback duration for each asset in the selected playlist. If you use the Synchronize Playlists action to make the selected playlist secondary, the duration values shown here might not have any bearing on how long an asset plays back before the playlist transitions to the next asset. There is no factory default duration value for nonvideo assets, so you must enter all such duration values manually.
Type	Signifies the type of playlist. This value is not editable.
Name	An editable field or an uneditable column in a table: • Enter a unique and meaningful name in the Name field to identify the selected object or action. • Click the Name column heading to sort the table by the values in that column.
Playlist Items	To understand the elements in the Playlist Items area, see UI Reference: Elements to Populate Playlists, page 3-92. To learn about the workflow to create a playlist, see Creating and Organizing Presentation Playlists, page 3-90.
Primary Playlist	Select the playlist object whose transition timing between assets during playback should override the equivalent transition timing of a secondary playlist.
RSS URL	Enter the source URL for the RSS feed.
Effect	Choose whether the ticker should fade or scroll and, for scrolling, choose the direction of motion. For a DMP 4300G or 4305G, only the fading effect is supported. For a DMP 4400G, all effects are supported.
Secondary Playlist	Select the playlist object whose transition timing between assets during playback should be overridden by the equivalent transition timing from the primary playlist.

Table 3-23 Digital Media Designer — The Properties Panel (continued)

Text {Size | Color | Horizontal Alignment | Vertical Alignment | Text}	All of the following: • Increases or decreases the text size (in pixels), depending respectively on whether you click the arrow head that points up or the arrow head that points down. • Changes the text size (in pixels) to the numeric value that you enter. • Changes the text color to match a color that you select after you click **...** or to match a hexidecimal color value that you enter.[1] • Changes the horizontal or vertical alignment of text to match the alignment types that you select. • Shows exactly the text that you enter in the Text field.
URL	An uneditable column in a table, where each row shows the URL for one remote playlist asset.
{Width | Height}	Enter in pixels the respective width and height of the selected screen zone object.
{X | Y}	X and Y coordinates that represent the placement of the first pixel (when reading from left to right and top to bottom) of the selected object.

1. The text color that you use should be one that results in clear and legible text against the background color that you specified; if there is not enough difference between the two colors, your audience might not see information clearly when you use this presentation to show text on a DMP display.

Creating and Organizing Presentation Playlists

Presentations that you design in DMD can contain *presentation playlists* that you populate. A presentation playlist contains assets from one or more media library categories or remote servers and shows these assets in the sequence that you specify. The only way to save a presentation playlist and deploy it to your DMPs is inside a presentation.

Caution Important considerations apply to your presentation playlists when you use ACNS. Before you delete a channel from ACNS, you must first remove from the shared schedule for DMM-DSM and DMM-ETV every presentation playlist that calls upon the channel. Then, you must edit all affected presentation playlists so that they do not use the channel. Otherwise, if a presentation playlist is scheduled for deployment but you delete an ACNS channel that it uses for content distribution, you will be prevented from deleting the playlist manually even though your DMPs cannot obtain its assets successfully from the deleted channel.

Before You Begin

- You must add assets to your media library before you can organize them in a playlist.
- You must add a DMP to DMM-DSM before you can deploy any presentations to it, and you must organize your DMPs into groups before you can deploy any presentation to a group. The DMP Groups list does not show any DMPs until you add at least one.
- You must add an external deployment server to DMM-DSM before you can deploy any presentations to it. Given this, it is important for you to understand that:
  - The DMP Groups list will never describe external deployment servers.
  - You cannot use the Schedules > Play Now feature with external deployment servers.
  - All deployments to your external deployment servers require that you use the Schedules > Play in Future feature.

Tip We recommend that you use the advanced task called DMP Startup URL and enter a value for either the Video URL or the Browser URL. If both values are blank, you might find that your DMP sometimes loses its ability to play even the Shockwave Flash files that it has played successfully in the past.

Procedure

Step 1 In DMD, do any of the following:

- Drag a playlist object (video or nonvideo) to the workspace from the Objects/Actions panel.
- Click a playlist object that you already placed on your workspace.
- Click a playlist object in the Layers panel.

The Properties panel now contains an area called "Playlist Items," where you can add, remove, or rearrange assets in a presentation playlist.

Step 2 In the Playlist Items area, enter values and select options that meet your requirements.

Step 3 To open the Content Chooser dialog box, where you configure a presentation playlist, click .

Step 4 To save a presentation playlist after you have populated and organized it and set the playback duration for each of its assets, click **Submit** in the Content Chooser dialog box.

Step 5 To save a presentation or a template after you have finished designing it, select **File > Save** in DMD.

Step 6 Deploy the presentation to the DMP displays that should show it.

Related Topics

- Managing and Grouping Your DMPs, page 3-12
- UI Reference: Elements to Add Assets and Edit Their Attributes, page 3-68
- Understanding the Two Types of Playlists for Digital Signage, page 3-71
- Working with Presentations, Templates, and Presentation Playlists for Digital Signage, page 3-71
- Table 3-19 on page 3-77
- Table 3-24 on page 3-92
- Table 3-25 on page 3-93
- Using Advanced Tasks, page 3-111
- Table 3-29 on page 3-113
- Scheduling Time Slots for Media and Events on DMPs, page 3-130
- Configuring the Settings to Deploy to External Servers, page 3-148

UI Reference: Elements to Populate Playlists

The Playlist Items area loads inside the Properties panel when the selected object on your workspace is either a video playlist object or a nonvideo playlist object.

Table 3-24 Elements for Managing Presentation Playlists

Element	Icon and Description	
unlabeled check box	Click to select (or to deselect) one or more assets so that you can change the playback sequence of, or remove assets from, the playlist that you are editing.	
asset location	Shows a miniature icon to indicate whether you selected the asset from your media library or from a remote server.	
		media library
		remote server
IANA Internet media type	Shows a miniature file icon to represent the asset that the corresponding row describes. DMD identifies assets according to their IANA-registered Internet media types. To learn about media types and understand the requirements to register them, see http://www.iana.org/assignments/media-types/.	
		Video asset of any supported type, whether a file or a multicast stream.
		Shockwave Flash 6 or 7 asset, if your DMP is a 4300G or a 4305G. Alternatively, a Shockwave Flash 6, 7, 8, or 9 asset, if your DMP is a 4400G.
		JPEG, GIF, or PNG asset.
		Web page.
Name	A unique and human-readable name that you entered.	
Duration, sec	The playback duration in seconds for the asset that the corresponding row describes. Click a value to see and use its duration control (), which is hidden until you click the value. To increase the playback duration by 1 second, click the top of a control. Alternatively, to reduce the playback duration by 1 second, click the bottom of a control. To increment or decrement the duration value quickly, hold down the mouse button after you click the top or the bottom of a control.	
URL	Shows the storage URL for the asset that the corresponding row describes.	
Add		Opens the Content Chooser dialog box, where—to populate a playlist—you choose assets from your media library or enter the URLs for remotely stored assets.
Remove		Removes all of the selected assets from the relevant playlist. Nonetheless, the assets remain in your media library or on the remote server from which you selected them.
Move Up	▲	Reorders the playlist so that the selected asset moves up one row, exchanging places with the asset that was above it.
Move Down	▼	Reorders the playlist so that the selected asset moves down one row, exchanging places with the asset that was below it.

Related Topics

- Table 3-21 on page 3-87
- Understanding the Properties Panel and Its Options, page 3-89
- Table 3-25 on page 3-93

Understanding the Content Chooser and Its Options

The Content Chooser dialog box is part of DMD. You use the Content Chooser to populate a presentation playlist.

Procedure

Step 1 To save your work and use a presentation playlist that you have populated, click **Submit**. Alternatively, to discard your work, click **Cancel**.

Tip We recommend that you use the advanced task called DMP Startup URL and enter a value for either the Video URL or the Browser URL. If both values are blank, you might find that your DMP sometimes loses its ability to play even the Shockwave Flash files that it has played successfully in the past.

Related Topics

- Using Advanced Tasks, page 3-111
- Table 3-29 on page 3-113

UI Reference: Elements for Choosing the Assets to Populate a Presentation Playlist

Table 3-25 Elements to Manage Assets in Playlists

Element	Icon and Description	
Click the Content Manager tab or the URL tab to choose whether the Available Content table should describe assets in your media library or help you to select an asset that is stored remotely.		
Content Manager tab		
Content Groups	An object selector that lists all categories in your media library. Click one category that the Available Content table should describe.	
Available Content	A table, which describes every available asset in the category that you clicked.	
		Add to Playlist—Adds to the Selected Items table whichever assets you have checked in the Available Content table, so that they might be included in a playlist. To add more assets to the Selected Items table, repeat this step as many times as necessary.
	—	**Name**—The name that you entered for the asset.
	—	**Type**—Says whether the asset is stored locally or should be retrieved from an HTTP URL.
	—	**Path**—Shows the HTTP URL for the described asset.
URL tab		
External URL	Choose an asset that is stored remotely, so that you can add it to the Selected Items table.	
	—	**Name**—Enter a name to describe the asset.
	—	**URL**—Enter the HTTP URL for the remote asset, or enter the UDP URL and port number.
		Add URL—Add the remote asset to the Selected Items table, so you can might include it in a playlist.

Table 3-25 Elements to Manage Assets in Playlists (continued)

Element	Icon and Description	
Selected Items	A table, which describes every asset that you have chosen so far for the playlist that you are populating. Sorts assets according to their order of playback. Also, includes features to change the playback order, change the duration of playback for each asset, and remove assets from the playlist.	
		Move Down—Changes the order of playback for assets in your playlist. Reorders the list so that the one asset whose name you have highlighted moves down by one row, exchanging places with the asset that was below it.
		Move Up—Changes the order of playback for assets in your playlist. Reorders the list so that the one asset whose name you have highlighted moves up by one row, exchanging places with the asset that was above it.
		Remove Assets from Playlist—Removes any number of assets from the playlist that you are configuring. You must first select one or more check boxes, corresponding to the assets that you want to remove. Even though you remove these assets from the playlist, they remain available in your media library or on the remote server that you specified.
	—	**Name**—The name that you entered for the asset.
	—	**Duration, sec**—The number of seconds that the asset will be visible when you show it on a DMP display. Click a value to see and use its duration control ( ), which is hidden until you click the value. To increase the playback duration by 1 second, click the top of a control. Alternatively, to reduce the playback duration by 1 second, click the bottom of a control. To increment or decrement the duration value quickly, hold down the mouse button after you click the top or the bottom of a control. • If you do not specify a duration for playback of video and SWF assets, the file plays to completion one time. • If you do not specify a duration for playback of images or web pages, their duration is continuous.
	—	**URL**—Shows the HTTP URL for the described asset.

Related Topics

- Working with Assets and Categories in Your Media Library, page 3-63

Creating and Organizing Ordinary Playlists

Note

- Playlists that you create under the Digital Signage tab are separate from the *presentation playlists* that you create in DMD but they are not mutually exclusive. You can assign ordinary playlists or presentation playlists interchangeably to zones in your presentations.
- You cannot add an advanced task (or a system task) to a playlist. However, you can schedule advanced tasks to occur between playlists.

Procedure

Step 1 Choose **Digital Signage > Playlists**.

Step 2 Select the options and enter the values that meet your requirements.

When you choose options anywhere on the Playlists page, it is updated automatically to show the options and features that are relevant to your selection.

Related Topics

- Table 3-26 on page 3-95

UI Reference: Elements to Define an Ordinary Playlist

Navigation

Digital Signage > Playlists

Table 3-26 Elements to Define an Ordinary Playlist

Element	Description
Title	The title for this playlist.
Assets	A table in which each row describes one asset. Attributes are sorted into these columns: • **Title**—A unique and human-readable name for the asset. • **File Type**—the type that best describes the asset: Video, Shockwave Flash, Images, HTML, or Firmware. • {**Estimated** | **Planned**}—Respectively: – An estimate of the actual running time from start to finish of the described asset, without regard for the amount of time the playlist has reserved to show it. – The amount of time that is reserved in the playlist to show this asset. A planned duration of 0 (zero) seconds in the playlist causes a video to play from beginning to end. To skip a video instead of playing it, you must remove it from the playlist. Nonvideo assets must have a duration of 1 second or more for each that you include in a playlist. • **Size**—The file size. • **Delete**— To select additional assets from your media library that this playlist should include, click **Add Assets**. To change the sequence of playback for assets in this playlist, select an asset that should move and then click either **Move Playlist Item Up** or **Move Playlist Item Down**.
Randomize	Enables or disables a randomized sequence of playback for assets in this playlist. To turn randomization on, check the check box. To turn randomization off, uncheck the check box.
Resolution	Choose the resolution of your DMP display from the **Select** list or enter its width and height, in pixels.

Table 3-26 Elements to Define an Ordinary Playlist (continued)

Element	Description
Description	A description of this playlist. The description is optional.
Playlist Owner	Your name or the name of the person who manages this playlist.

Using a Content Delivery System with DMPs

- Choosing the Content Delivery System to Use in Your Digital Media Network, page 3-96
- Understanding DMP Support for the CIFS Protocol, page 3-97
- Upgrading the Kernel in DMP 4300G and 4305G Endpoints to Support CIFS, page 3-98
- About the Built-in Mechanism for Content Distribution, DMS-CD, page 3-99
- Best Practices for Limiting the Risk of Disrupted DMP 4400G Performance, page 3-101
- Checking Disk Space Capacity for Deployments, page 3-102
- Configuring DMS-CD Deployment Threshold Preferences, page 3-102
- Using DMS-CD Deployment Packages to Provision Assets to DMPs, page 3-105
- Methods to Monitor and Troubleshoot DMS-CD Deployments, page 3-108

Choosing the Content Delivery System to Use in Your Digital Media Network

In digital media networking, it is sometimes necessary to distribute large files over networks where bandwidth capacity is moderately or severely constrained. The challenge of doing this successfully is that delivering HD or SD video streams and deploying large assets often requires an average data transfer rate of greater than 6 million bits per second (Mbps, or *megabits*). Digital media networks can compound your need for bandwidth.

There is a practical maximum limit in any WAN for how much bandwidth each of its remote sites can use, and a content delivery solution can help you to manage multicast file distribution efficiently to the DMPs that operate at your remote sites. In this way, content delivery solutions can enhance the scalability of your existing network infrastructure and adapt it for digital media deployments.

Table 3-27 Comparison of Supported Content-Distribution Methods

Content Distribution Method	Use Cases with Cisco DMS
DMS-CD	DMS-CD might be the best choice for your digital media network if these statements are true: • You use Cisco DMS for digital signage only and do not need any content-distribution support for desktop video. • You *do not* show live video or high-definition video. • Each site in your WAN has fewer than three DMPs. • Each site in your WAN has bandwidth capacity of less than T1/E1. • On average, each site in your organization downloads less than 200 MB daily. • It takes longer than 5 hours in your WAN to download 300 MB at 128 Kbps.

Table 3-27 Comparison of Supported Content-Distribution Methods (continued)

Content Distribution Method	Use Cases with Cisco DMS
ACNS	ACNS might be the right choice for your digital media network if these statements are true: • You use Cisco DMS for both digital signage and desktop video. • You show high-definition video. • Each site in your WAN has at least three DMPs or at least three Video Portal users. • Each site in your WAN has bandwidth capacity of less than T2/E2. • On average, each site in your organization downloads 200-300 MB of video daily. • You need a comprehensive platform for media-delivery.
WAAS	WAAS might be the right choice for your digital media network if these statements are true: • You use Cisco DMS for both digital signage and desktop video. • You use Windows Media for live desktop video streams. • Each site in your WAN has at least three DMPs or at least three Video Portal users. • Each site in your WAN has bandwidth capacity of less than T2/E2. • On average, each site in your organization downloads more than 300 Mbps of video daily. • You want to use the Common Internet File System (CIFS) protocol when provisioning assets to your DMPs.

Note Commonly, the bandwidth capacity required to deliver an HD video stream ranges from 10 Mbps to 15 Mbps, while an average SD video stream uses approximately one-third as much capacity as an HD video stream does. However, these parameters are highly configurable and will vary from one WAN to another.

Related Topics

- About the Built-in Mechanism for Content Distribution, DMS-CD, page 3-99
- Understanding DMP Support for the CIFS Protocol, page 3-97
- Configuring the Settings to Use ACNS or WAAS, page 3-147

Understanding DMP Support for the CIFS Protocol

Common Internet File System (CIFS) is a network protocol for sharing files and for obtaining remote access to those files.

A *CIFS share* is a mount point on a network attached storage device that supports the CIFS protocol. When you choose WAAS as your content distribution method, DMM-DSM instructs DMPs to use the CIFS protocol and mount a network share, such as a Windows shared folder, that uses CIFS. The following restrictions apply to our support for CIFS:

- There can be only one CIFS mount point, which all DMPs use in common. You cannot set DMPs or DMP groups to mount any CIFS share except this one.

- Either your DMPs all use CIFS, or none of them do.
- It might be necessary for you to upgrade the kernel that your DMP 4300G and DMP 4305G endpoints use, so that they can support the CIFS protocol.

Tip There is no need to upgrade the kernel on a DMP 4400G. Every DMP 4400G supports CIFS already.

Related Topics

- Upgrading the Kernel in DMP 4300G and 4305G Endpoints to Support CIFS, page 3-98
- Configuring the Settings to Use ACNS or WAAS, page 3-147

Upgrading the Kernel in DMP 4300G and 4305G Endpoints to Support CIFS

DMP 4300G and DMP 4305G endpoints that use an older kernel version cannot use the CIFS protocol that Cisco DMS 5.1 supports. You must upgrade the kernel on these DMPs before you can use CIFS. It is not necessary to upgrade the kernel on a DMP 4400G, because the necessary kernel version already is installed.

Installable kernel files are stored on the software CD that you received from Cisco after you:

- Purchased DMM-DSM 5.1.
- Paid to upgrade from an earlier release.
- Contacted Cisco TAC to verify a SAS contract that applies to DMM-DSM.
- Contacted Cisco TAC to verify a SAS contract that applies to your DMPs.

Note These files are **not available** for download from Cisco.com.

- For DMP 4300G endpoints, the kernel is **DMPkernel_A1_4300.tivella**
- For DMP 4305G endpoints, the kernel is **DMPkernel_A1_4305.tivella**

Procedure

	Task	Steps

Step 1	Check each DMP to see which kernel version is installed.	**a.** Load this URL in your browser:
		`http://<DMP_IP_address>:7777/get_param?p=sinfo.version`
		b. Enter the username and password for the DMP web account.
		c. Read the *sinfo.version* output that your DMP returns. Its time stamp should be exactly:
		`Tue Nov 18 14:48:57 EST 2008`
		If the time stamp is any earlier than is shown here, the kernel is outdated and you must install the updated kernel on this DMP before it will support the CIFS protocol.

Step 2	Add the kernel to your media library.	**a.** Locate your upgrade CD for this DMP model type. Its silk-screened label says one of the following: • Cisco Digital Media Player Software Upgrade for 4300G Version 5.1 • Cisco Digital Media Player Software Upgrade for 4305G Version 5.1 **b.** Locate the kernel file on the CD. Its filename is one of these: • DMPkernel_A1_4300.tivella • DMPkernel_A1_4305.tivella **c.** Add the kernel to your media library.
Step 3	Install the new kernel on each DMP.	

Related Topics

- Adding One Asset at a Time to Your Media Library, page 3-67
- DMP Firmware Upgrade, page 3-117
- Upgrading the Firmware or Kernel on DMPs, page 3-123

About the Built-in Mechanism for Content Distribution, DMS-CD

Activation

Anyone who has purchased a valid license to use this release of DMM-DSM also has a perpetual license to use its built-in implementation of DMS-CD. No additional software is required and there is no recurring cost.

Note

- We recommend that you avoid using any value greater than 100, which is the factory-default value, in the “Number of concurrent deployments” field. Using a value greater than 100 can increase the number of concurrent DMS-CD sessions to DMPs and increase the load on your DMM appliance. You might try reducing this value if you notice that the CPU load is high on your DMM appliance during DMS-CD deployments. In our tests, we found that DMM appliances operate at expected

levels while running 75 concurrent DMS-CD sessions. This metric might differ in your WAN, depending on total bandwidth capacity and the value you use in the "Enable maximum transfer rate" field. To understand these fields, see Table 3-28 on page 3-103.

- This DMS-CD release does not support live video. It provisions assets that already exist.
- This DMS-CD release does not support desktop video. It provisions assets to DMPs.
- This DMS-CD release does not delete files from any DMP that belongs to multiple DMP groups. For autocleaning to occur on a DMP, it can belong to one DMP group only. Alternatively, you can use Play Now to deploy a job to DMPs.
- You can attach only one external USB flash drive or external USB hard drive to a DMP. We do not support USB hubs or any other method that you might use to attach multiple drives (or other device types) to a DMP.

Cisco DMS content distribution (DMS-CD) is a file delivery and management mechanism that conserves network bandwidth and optimizes playback performance by provisioning creative assets directly to your DMPs. With DMS-CD, you can use FTP or SFTP to transfer multiple playlists and presentations to DMP local memory, storing their assets directly on the flash memory card that is preinstalled inside a DMP and—or alternatively—on an external USB hard drive or flash drive that you attach to a DMP.

DMS-CD is designed for use in WANs with as many as 1,000 sites that each have a maximum of three DMPs delivering digital media to their attached DMP displays. Within these parameters, you can provision up to 300 MB of new data to each DMP every day, depending on the bandwidth capacity of your WAN.

Differential download intelligence in DMS-CD prevents the needless provisioning of any asset more than once to any DMP that uses it and already has downloaded it, even if you have used the asset repeatedly in multiple playlists or presentations. Your DMPs retain their valid assets and download only what is new or has changed.

A systemwide threshold that you define limits in your WAN how much bandwidth is used per session when DMS-CD provisions assets to one of your DMPs. For example, a limit of 1.2 mbits means that file transfer speeds for DMS-CD deployments cannot exceed the maximum threshold of 1.2 mbits per DMP. Thus, if your deployment provisions assets to 20 DMPs, the maximum WAN bandwidth that DMS-CD uses is 24 mbits, because 20 x 1.2 = 24.

If the deployment package is interrupted while you are provisioning assets (due to a power failure or a network outage, for example), the file transfer process resumes automatically after the interval has elapsed that you specified in the "Deployment retry time (in seconds)" field. Similarly, the maximum number of times that DMS-CD tries to provision assets for an interrupted deployment package is constrained by the "Deployment retry count" value. You define these values at Deployment Manager > Deployment Preferences. If your deployment is scheduled to recur daily, as we recommend, DMS-CD will resume the transfer each day of any assets which were too large to transfer completely during the previous 24-hour period, as would be the case for a file that is 1.6 GB if none of your DMPs can download more than 200 MB in a single day. This feature is useful in cases where you must compensate for bandwidth throttling or other constraints, such as a limited number of nighttime hours when deployments are certain not to disrupt the digital signage messages or Enterprise TV programs that your organization shows to its targeted audiences.

Because DMS-CD uses the same scheduling features that are built into DMM-DSM, you can schedule assets to be provisioned late at night or at other convenient, planned times. Furthermore, reporting features in DMM-DSM show you which DMS-CD deployments have succeeded or failed and show you which files were deployed to each DMP.

Best Practices for Limiting the Risk of Disrupted DMP 4400G Performance

Improper scheduling practices and improper WAN bandwidth parameters in your digital media network can cause DMS-CD to disrupt playback performance temporarily on your DMP 4400G endpoints. The disruption affects multicast video streams, HD videos, Shockwave Flash animations, and image assets that these DMPs show on their attached DMP displays while simultaneously downloading newly provisioned, large assets. When this disruption happens:

- Videos might become fragmented (contain artifacts), drop frames, or cut out during playback.
- Flash animations might play slowly.
- Images might redraw slowly.
- DMPs might restart unexpectedly, in rare instances.

These behaviors affect the DMP 4400G due to a hardware resource limitation. However, you can configure bandwidth restrictions in your WAN that should help to alleviate these symptoms or eliminate them completely, depending on the system load of each DMP. We recommend that you apply these best practices in your network:

- If playback and deployments must occur simultaneously, use the "Enable maximum transfer rate" field (at Digital Media Players > Deployment Manager > Deployment Preferences) to configure an upper threshold for bandwidth consumption by DMS-CD during its deployments to each individual DMP in your WAN. The value that you enter should be *less than* the maximum transfer rate of your network. If necessary, adjust and test values until you determine exactly how much bandwidth DMS-CD can use in your WAN without affecting DMP performance. In our tests, we found that using 5 Mbps as the upper threshold provided adequate bandwidth restriction in most cases; however, this is not necessarily a value that you should use. Results will vary depending on network capacity and the load placed on a DMP.
- Whenever possible, schedule DMS-CD deployments to run while there is little or no load on your DMPs, such as during the "off hours" at each store or branch site, when no playback is scheduled. If you schedule deployments and playback to run in parallel, your deployments might take longer to finish than you anticipate. This delay is predictable because the load is doubled on DMP system resources. In this case, deployments might be slow even when you have not imposed any bandwidth restrictions upon DMS-CD.
- Schedule your DMS-CD deployments to run during hours that have the least possible impact on your audience. For example, you might run deployments late at night or early in the morning if this is when your audience is smallest.
- We recommend that you create no more than one DMS-CD deployment package for each of your DMP groups whose member DMPs should play assets that are stored locally. You can schedule this deployment to recur each day at the least disruptive time and you can add, edit, or delete entries whenever necessary in the playlists, presentations, and commands that are part of the deployment package. DMS-CD will sync DMP storage with the current version of this deployment package and apply any changes automatically without additional user intervention, preventing your DMPs from keeping local copies of obsolete assets long after you obsolete them. Also, this method increases the likelihood that large deployments will resume and be completed successfully on a slow connection. Furthermore, this method prevents DMS-CD deployments from becoming so numerous that they are difficult to manage.

Related Topics

- Configuring DMS-CD Deployment Threshold Preferences, page 3-102
- Best Practices for Managing and Maintaining the Schedule, page 3-133

Checking Disk Space Capacity for Deployments

Before You Begin

- Create DMP groups and populate them with DMPs.

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Click in the DMP Groups object selector the name of the DMP group that contains the target DMP.

The DMP List table is repopulated with the corresponding group membership list.

Step 3 (Optional) Use filtering options above the DMP List table to limit how many DMPs the table describes.

Step 4 Add together the values that you see in the Internal Storage MB. (Total/Free) column and the Internal Storage MB. (Total/Free) column. The combination of these values is the total free capacity.

Step 5 Compare the total free capacity to the expected size of your deployment package.

- If the total free capacity is sufficient, provision the assets in a deployment package, as planned.
- If the total free capacity is not sufficient, do one of the following:
  - Reduce the size of the deployment package.
  - Delete unused or unimportant assets from the DMP.
  - Attach one external USB drive to the DMP if you have not attached one already.
  - Replace the external USB drive with one that has greater capacity.

Related Topics

- Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15

Configuring DMS-CD Deployment Threshold Preferences

Note

- Given the default Retry Count value of 5, and the default Retry Timeout duration of 300 seconds, you can expect that DMS-CD will take as long as 1,500 seconds (25 minutes) by default to detect content or determine that a DMP is unreachable and give up. If this is too long, you might try changing the Retry Timeout value from 300 to 30.
- Most DMS-CD deployment preference settings that you define take effect during the next scheduled DMS-CD deployment. However, any time that you change the "Number of concurrent deployments" value, you must **restart your DMM appliance** *and* run a scheduled DMS-CD deployment before the changed setting takes effect on your DMPs.

Procedure

Step 1 Choose **Digital Media Players > Deployment Manager > Preferences**.

Step 2 Define the DMS-CD thresholds that should be applied by default in the future, when you transfer deployment packages:

a. Enter or edit the requested values.

b. Choose the file transfer protocol, FTP or SFTP.

c. Enable or disable a maximum transfer rate.

Tip Changes to the maximum transfer rate will have no effect on deployments that are running already. They are applied to deployments that start after you save your changes.

Step 3 Click **Update** to save your work and put it into effect. Alternatively, click **Cancel** to discard your work and restore the previous entries.

Related Topics

- UI Reference: Elements to Define Deployment Thresholds, page 3-103
- Creating a DMS-CD Deployment Package, page 3-105
- Methods to Monitor and Troubleshoot DMS-CD Deployments, page 3-108

UI Reference: Elements to Define Deployment Thresholds

Navigation Path

Digital Media Players > Deployment Manager > Preferences

Table 3-28 Elements to Configure DMS-CD Deployment Thresholds

Element	Icon and Description
Number of concurrent deployments	**Note** Any time that you change this value, you must restart your DMM appliance before the changed setting takes effect on your DMPs. The maximum number of FTP or SFTP threads (sessions) that are allowed to run concurrently when DMS-CD provisions assets to a DMP. The permitted value is any whole number in the range from 1 to 1000. The factory-default value is 100 threads.

Table 3-28 Elements to Configure DMS-CD Deployment Thresholds (continued)

Deployment time limit per file (in minutes)	The count of how many seconds will be allowed to elapse after a DMS-CD deployment package begins to provision any file, before the file that reached this threshold is moved to the back of the queue and its transfer is deferred. The next file advances to the front of the queue and the deployment continues. DMS-CD applies this threshold to a deployment package as many times as necessary until it has cycled through all of its files, and then the transfer is resumed for the deferred file after it returns to the front of the queue. This threshold might cause the transfer of any especially large file to be distributed across days. Bottlenecks are prevented and as many assets are provisioned as can be provisioned. The permitted value is any whole number in the range from 1 to 10080, where 10,080 minutes is the same as 168 hours or 7 days.The factory-default value is 1440 minutes.
Deployment retry count	The count of how many times DMS-CD should try again to restart a failed deployment, until DMS-CD stops trying. The permitted value is any whole number in the range from 1 to 100. The default value is 5 retries.
Enable maximum transfer rate	The upper threshold allowed for bandwidth consumption by DMS-CD during its deployments to each DMP in your WAN, as measured in kilobits per second (Kbps). The value that you enter should be less than the maximum transfer rate of your network. The permitted value is any whole number in the range from 28 to 102400, where 102400 Kbps is the same as 100 Mbps. The factory-default setting is that use of the maximum transfer rate is disabled.
Deployment Protocol	FTP or SFTP. If you choose SFTP, connections are encrypted between your DMM server and your DMPs. Otherwise, these sessions use clear text. The factory-default setting is FTP.
Maximum file size (in MB)	The maximum number of megabytes—per file—that DMS-CD will transport inside a multifile deployment package to your DMPs, before the file that reached this threshold is moved to the back of the queue and its transfer is deferred. The next file advances to the front of the queue and the deployment continues. DMS-CD applies this threshold to a deployment package as many times as necessary until it has cycled through all of its files, and then the transfer is resumed for the deferred file after it returns to the front of the queue. This threshold might cause the transfer of any especially large file to be distributed across days. Bottlenecks are prevented and as many assets are provisioned as can be provisioned. The permitted value is any whole number in the range from 10 to 1024000, where 1,024,000 MB is the same as 1 TB. The factory-default maximum size is 600 MB. **Note** Although it is technically feasible to enter a file size as great as 1024000 MB, playback fails for any file that is larger than 1.9 GB, regardless of the DMP model type. This size is constrained by the limits of streaming.
Deployment retry time (in seconds)	The count of how many seconds must elapse before DMS-CD tries again to transfer a deployment package to a DMP on which the transfer failed or was interrupted. DMS-CD will never try to resume an interrupted or failed transfer until at least this many seconds have elapsed. The permitted value is any whole number in the range from 5 to 10800, where 10800 is equal to 3 hours. The factory-default value is 300 seconds.

Related Topics

- Configuring DMS-CD Deployment Threshold Preferences, page 3-102

Using DMS-CD Deployment Packages to Provision Assets to DMPs

- Creating a DMS-CD Deployment Package, page 3-105
- Editing a DMS-CD Deployment Package, page 3-106
- Deleting a DMS-CD Deployment Package, page 3-108
- Configuring DMS-CD Deployment Threshold Preferences, page 3-102
- Methods to Monitor and Troubleshoot DMS-CD Deployments, page 3-108

Creating a DMS-CD Deployment Package

Before You Begin

- Configure download threshold preferences for DMS-CD.
- Check the free disk space on your DMPs for storing provisioned assets.

Procedure

Step 1 Choose **Digital Media Players > Advanced Tasks**.

Step 2 Choose **Deployment Package** from the Application Types list.

Step 3 Click **Add New Application**.

Step 4 Enter a name and description for this deployment package.

Step 5 Choose the mount point for this deployment. You can choose only one:

- **Flash Storage** is the flash memory card installed inside a DMP, also known as usb_1.
- **USB** is the one external USB hard drive that is attached to a DMP, also known as usb_2.

Note To learn which external USB drives we support and have tested, see *Cisco Digital Media System Compatibility Information* on Cisco.com: http://www.cisco.com/en/US/products/ps6681/products_device_support_tables_list.html.

Step 6 Check the Emergency/Alarm check box if this job consists of assets for an emergency notification. Otherwise, uncheck it.

Step 7 Populate and save the deployment package.

a. Click the name of an applications category in the Applications list.

b. Choose one or more applications from the Available Applications list, and then click **Select Applications**.

c. (Optional) Reorder the Selected Applications list.

d. Click **Submit**.

Step 8 Use the Play in Future feature to schedule deployment of this package to your DMPs that should receive it, and then wait for the file transfer to finish.

Note DMS-CD does not prevent you from using the Actions list or the Play Now feature to start transferring a DMS-CD deployment package immediately. However, using either of these methods defeats many of the most important benefits of using DMS-CD. We recommend instead that you use the Play in Future feature to schedule all of your DMS-CD deployment packages.

Bandwidth capacity in your WAN determines how long you must wait for the deployment to finish. After it is finished, DMM-DSM autogenerates the (Go To) URL action for this deployment package.

Step 9 Choose **Digital Signage > Digital Medial Players > Advanced Task > (Go to) URL**.

Step 10 Check that a (Go to) URL action was autogenerated, which adds the prefix LOCAL to the name that you entered in Step 4.

Step 11 Deploy this autogenerated (Go to) URL action.

- Use the Actions list to deploy immediately.
- Use the Play now feature to deploy immediately.
- Use the Play in Future feature to schedule a future deployment.

If you use Play in Future, the scheduled start and stop times are derived from the clock in your DMM appliance.

Note You cannot use the Deployment Status feature (at Digital Media Players > Deployment Manager > Deployment Status) to check the progress or status of immediate deployments.

Related Topics

- Checking Disk Space Capacity for Deployments, page 3-102
- Configuring DMS-CD Deployment Threshold Preferences, page 3-102
- Editing a DMS-CD Deployment Package, page 3-106
- Deleting a DMS-CD Deployment Package, page 3-108

Editing a DMS-CD Deployment Package

Before You Begin

- Configure download threshold preferences for DMS-CD.
- Check the free disk space on your DMPs for storing provisioned assets.
- Create at least one DMS-CD deployment package.

Procedure

Step 1 Choose **Digital Media Players > Advanced Tasks**.

Step 2 Choose **Deployment Package** from the Application Types list.

Step 3 Click the name of the deployment package to be edited.

Step 4 Click **Edit Application**.

Step 5 (Optional) Edit the name or description for this deployment package.

Step 6 (Optional) Change the mount point for this deployment. You can choose only one:

- **Flash Storage** is the flash memory card installed inside a DMP, also known as usb_1.
- **USB** is the one external USB hard drive that is attached to a DMP, also known as usb_2.

Note To learn which external USB drives we support and have tested, see *Cisco Digital Media System Compatibility Information* on Cisco.com: http://www.cisco.com/en/US/products/ps6681/products_device_support_tables_list.html.

Step 7 (Optional) Check the Emergency/Alarm check box if this job consists of assets for an emergency notification. Otherwise, uncheck it.

Step 8 (Optional) Repopulate and save the deployment package.

a. Click the name of an applications category in the Applications list.

b. Choose one or more applications from the Available Applications list, and then click **Select Applications**.

c. (Optional) Reorder the Selected Applications list.

d. Click **Submit**.

Step 9 Use the Play in Future feature to schedule deployment of this package to your DMPs that should receive it, and then wait for the file transfer to finish.

Note DMS-CD does not prevent you from using the Actions list or the Play Now feature to start transferring a DMS-CD deployment package immediately. However, using either of these methods defeats many of the most important benefits of using DMS-CD. We recommend instead that you use the Play in Future feature to schedule all of your DMS-CD deployment packages.

Bandwidth capacity in your WAN determines how long you must wait for the deployment to finish. After it is finished, DMM-DSM autogenerates the (Go To) URL action for this deployment package.

Step 10 Choose **Digital Signage > Digital Medial Players > Advanced Task > (Go to) URL**.

Step 11 Check that a (Go to) URL action was autogenerated, which adds the prefix LOCAL to the name that you entered or edited in Step 5.

Step 12 Deploy this autogenerated (Go to) URL action.

- Use the Actions list to deploy immediately.
- Use the Play now feature to deploy immediately.
- Use the Play in Future feature to schedule a future deployment.

If you use Play in Future, the scheduled start and stop times are derived from the clock in your DMM appliance.

Note You cannot use the Deployment Status feature (at Digital Media Players > Deployment Manager > Deployment Status) to check the progress or status of immediate deployments.

Related Topics

- Checking Disk Space Capacity for Deployments, page 3-102
- Configuring DMS-CD Deployment Threshold Preferences, page 3-102
- Creating a DMS-CD Deployment Package, page 3-105
- Deleting a DMS-CD Deployment Package, page 3-108

Deleting a DMS-CD Deployment Package

Before You Begin

- You must have saved at least one DMS-CD deployment package.
- Use the Reports feature (at Schedules > Reports) to search your schedule for any instances of the deployment package that you will delete. If you find one or more scheduled instances of it, remove those deployments from your schedule.

Procedure

Step 1 Choose **Digital Media Players > Advanced Tasks**.

Step 2 Choose **Deployment Package** from the Application Types list.

Step 3 Click the name of the action to be deleted, click **Delete Application**, and then click **Submit**.

Step 4 Choose **(Go to) URL** from the Application Types list.

Step 5 Click the name of the action to be deleted, click **Delete Application**, and then click **Submit**.

Related Topics

- Creating a DMS-CD Deployment Package, page 3-105
- Editing a DMS-CD Deployment Package, page 3-106

Methods to Monitor and Troubleshoot DMS-CD Deployments

- Viewing Status Details for DMS-CD Deployments, page 3-108
- Checking Appliance System Logs for DMS-CD Deployment Errors, page 3-109
- Using Snapshot Mode or Live Monitor Mode to Check for DMS-CD Deployment Errors, page 3-110

Viewing Status Details for DMS-CD Deployments

Tip Values in the Timestamp column always signify one of these:

- When you clicked Publish All to provision the described deployment package.
- When the described deployment succeeded.
- When the described deployment failed

Procedure

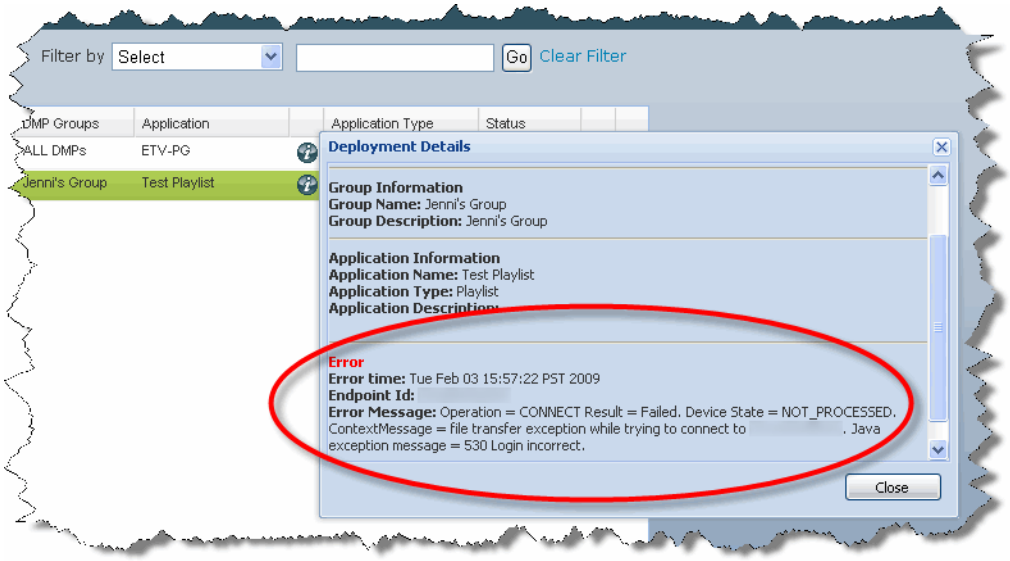
Step 1 Choose **Digital Signage > Digital Media Players > Deployment Manager > Deployment Status**.

Step 2 (Optional) Use filtering options above the table to limit how many deployment packages the table describes.

Step 3 If the Status column shows a value of Failed for the deployment package whose status you are checking, click the corresponding icon in the far right column.

Step 4 Scroll through the Deployment Details popup window (see Figure 3-7) until you see an error message that might help you to troubleshoot the failure. For example, an error message might say that DMP login credentials were incorrect.

Figure 3-7 Deployment Details



Related Topics

- Methods to Monitor and Troubleshoot DMS-CD Deployments, page 3-108

Checking Appliance System Logs for DMS-CD Deployment Errors

Procedure

Step 1 Log in to AAI on your DMM appliance.

Step 2 Choose **DMM_CONTROL > DMM_LOG_LEVEL > DEBUG**, to ensure that the logs are verbose.

Step 3 Choose **APPLIANCE_CONTROL > GET_SYSLOG**, and then choose the method to receive the system logfiles.

Step 4 Search through the IFMS.log and catalina.out logfiles for messages about:

- DMS-CD deployment events
- DMP deployment events

- Application deployment events
  (where “application” is another word for “package”)
- File management events
- Error events
- Debug logs

These are the detected and reported error conditions that DMS-CD logging captures:

- DMS-CD cannot retrieve a file.
- DMS-CD cannot provision a file (DMP out of space or missing USB)
- DMP is not reachable (is down, or has wrong IP)
- Deployment was interrupted (network outage, DMM down, etc.)
- Deployment was not completed during its window

Related Topics

- Methods to Monitor and Troubleshoot DMS-CD Deployments, page 3-108

Using Snapshot Mode or Live Monitor Mode to Check for DMS-CD Deployment Errors

Procedure

Step 1 Choose **Administration > Alerts > Alert Reports**.

Step 2 Do one of the following:

- Click **Live Monitor Mode** and choose an option from the Type list.

  Live monitor mode describes the most recent 100 instances of an event type that you choose, and its data is refreshed automatically every 90 seconds.
- Click **Snapshot Mode**, choose the start and stop dates and times, and choose an option from the Type list.

  Snapshot mode describes only the events that match the combination of all parameters that you choose.

Step 3 Click **Apply**.

Note These options from the Type list cause the filtered report to describe only the DMS-CD deployments that failed or succeeded:

- Deployment Failures
- Deployment Successes

These options from the Type list cause the filtered report to describe only the events that DMPs reported, some of which might pertain to disrupted or failed deployments with DMS-CD:

- DMP Outages
- DMP Restarts
- DMP IP Conflicts

When you choose the All Internal Events option from the Type list, these event types also pertain to deployments:

- Deployment error
- Deployment started
- Deployment ended

Related Topics

- Methods to Monitor and Troubleshoot DMS-CD Deployments, page 3-108

Using Advanced Tasks

Many advanced tasks and options are available to you in DMM-DSM. Your expectations and goals for your digital signage network determine which tasks and options are relevant to you at any particular time or for any particular purpose.

Procedure

Step 1 Select **Digital Media Players > Advanced Tasks**, and then click an application name in the **Application Types** list, as follows:

Application Type	Purpose
(Go to) URL	Load media from a web server into TVzilla, the embedded browser on a DMP. See the "(Go to) URL" section on page 3-113.
DMP Audio/Video Settings	Adjust the audio and video signals that DMPs send to their attached DMP displays. See the "DMP Audio/Video Settings" section on page 3-114.
DMP Discovery	Autoregister the DMPs in a network range that you specify and add those DMPs to DMM-DSM for centralized management. See the "DMP Discovery" section on page 3-114.
DMP Display Controls	Bind together a group of RS232 instructions that you can use to remotely configure display settings on some Cisco, NEC, and DMTech display models when displays of these types are attached to your DMPs. See the "DMP Display Controls" section on page 3-115.
DMP Failover Retry	Set the DMP Recovery URL value and the Recovery Timeout value. See the "DMP Failover Retry" section on page 3-116.
DMP Firmware Upgrade	Choose firmware upgrades and patches to send to one or more DMPs. See the "DMP Firmware Upgrade" section on page 3-117.
DMP Startup URL	Configure DMPs to load a particular HTTP URL when you start or restart them. See the "DMP Startup URL" section on page 3-118.
Deployment Package	Configure a DMS-CD deployment to DMP local storage.

Application Type	Purpose
File Transfer to DMP or Server	**Tip** We recommend that you use DMS-CD instead of this deprecated, legacy feature, which deletes anything that you saved previously to the flash memory card inside your DMP, and is unable to transfer assets to any external USB drives that you might have attached to your DMPs. Use HTTP pulling, use FTP to transfer to your DMPs, or use FTP to transfer to your FTP servers (external deployment servers), the: • Assets from presentations that you prepared in Digital Media Designer. • Commands and settings from advanced tasks that you selected or configured under the Digital Media Players tab. See the "File Transfer to DMP or Server" section on page 3-119.
System Tasks	Select an administrative command to send to one or more DMPs. See the "System Tasks" section on page 3-120.

Step 2 (Optional) If you previously defined or configured options for the relevant application and you saved your selections, click any row in the Applications table to select one of the operations that you defined; the row that you click should be one that you want to edit, deploy to DMPs, or delete.

Step 3 Do one of the following:

- To define or configure options for a new operation, click **Add New Application**.
- To edit the options that you previously defined or configured for the operation that you selected in Step 2, click **Edit Application**.
- To delete the operation that you selected in Step 2, click **Delete Application**.

Step 4 If you clicked **Add New Application** or **Edit Application**, the page is refreshed and you can select options or enter values that define or redefine the behavior for this operation.

Step 5 To save your selections, click **Submit**. Otherwise, click **Cancel** to discard your selections.

Step 6 To deploy to your DMPs the commands that you saved in Step 5, see Scheduling Time Slots for Media and Events on DMPs, page 3-130.

Related Topics

- UI Reference: Elements to Configure Advanced Tasks, page 3-112

UI Reference: Elements to Configure Advanced Tasks

- Deployment Package, page 3-118
- DMP Audio/Video Settings, page 3-114
- DMP Discovery, page 3-114
- DMP Display Controls, page 3-115
- DMP Failover Retry, page 3-116
- DMP Firmware Upgrade, page 3-117
- DMP Startup URL, page 3-118

- File Transfer to DMP or Server, page 3-119
- (Go to) URL, page 3-113
- System Tasks, page 3-120
  - Default, page 3-120
  - FTP {Off | On}, page 3-120
  - HDMI Autodetection {Off | On}, page 3-120
  - Reboot, page 3-120
  - RS-232: Control DMTech displays, page 3-121
  - RS-232: Control supported, non-DMTech displays, page 3-121
  - Save Settings, page 3-120
  - Save Settings and Reboot, page 3-120
  - Screen Resolution Autodetection {Off | On}, page 3-121
  - Show {Browser | Video}, page 3-121
  - Status, page 3-121
  - Stop All Applications, page 3-121
  - Transparency 50%, page 3-121
  - Upgrade Status, page 3-121
  - Version, page 3-121

Navigation Path

Digital Media Players > Advanced Tasks

Table 3-29 Understanding and Using Advanced Tasks

Application Name	Description, Icons, and Options
(Go to) URL	
Load media from a web server into TVzilla, the embedded DMP browser.	
Name	A unique and human-readable name for the website that you will select to show in this task. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
URL	The full and correct HTTP URL that points to a page or file on a webserver. The URL that you enter should point to a page that is dynamic and does not require any human interaction (such as clicking or scrolling) to be useful or interesting. You must enter a URL.

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
DMP Audio/Video Settings	
Adjust the audio and video signals that DMPs send to their attached DMP displays.	
Name	A unique and human-readable name for the settings that you configure in this task. For example, you might adjust the brightness setting to accommodate a locale where the lighting is dim, and then enter a name that identifies that kind of locale. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
Brightness	The setting that compensates for any deficiencies in the on-screen brightness of your DMP displays. Brightness compensation values can range from –128 to 127.
Contrast	The setting that compensates for any deficiencies in the on-screen contrast of your DMP displays. Contrast compensation values can range from 0 to 255. The default is 128.
Saturation	The setting that compensates for any deficiencies in the on-screen color saturation of your DMP displays. Saturation compensation values can range from 0 to 255. The default is 128.
Left Audio Channel Volume	The setting to control how loudly or softly your DMP display speakers play sound in the left audio channel. Volume can range from 0 to 100, where 0 is silent. The default is 50.
Right Audio Channel Volume	The setting to control how loudly or softly your DMP display speakers play sound in the left audio channel. Volume can range from 0 to 100, where 0 is silent. The default is 50.
DMP Discovery	
Autoregister the DMPs in a network range that you specify and add those DMPs to DMM-DSM for centralized management. For autoregistration and centralized management to succeed: • *Your firewall must allow DMM-DSM and your DMPs to communicate over TCP port 7777 and must also allow ICMP (ping) traffic on this port.* • *In DMPDM, you must enable the Enable Cisco TAC Troubleshooting Access option. Alternatively, see Enabling and Disabling Troubleshooting Access on DMPs, page 3-122.* *To learn about other autoregistration options for the DMPs in your digital signage network, see Adding and Editing DMP Groups, and Autoregistering DMPs to Populate Them, page 3-15.* **Note** *DMP autoregistration operations occur in sequence and cannot overlap. You should not schedule multiple DMP autoregistration operations that overlap or run simultaneously. If you do, only the first such operation will run and DMM-DSM will not show any error message to explain why the other autoregistration operations failed to find any DMPs. If you must run autoregistration tasks that search different subnets, schedule a 35-minute interval between the start time for one autoregistration and the start time for the next autoregistration.*	
Name	A unique and human-readable name for this autoregistration IP address range task. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
Discovery IP Range	The NMAP syntax to describe one or multiple ranges of IP addresses.

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
DMP Display Controls	
Bind together a group of RS-232 instructions that you can use to remotely configure display settings. **Note** *Before you can use this feature, you must enable RS-232 support for your displays. Select **Digital Media Players > Advanced Tasks > System Tasks**; then, name, save, and deploy one of these as the correct option for your display type:* • *RS-232: Control DMTech displays.* • *RS-232: Control supported, non-DMTech displays.* **Tip** *To learn about the RS-232 commands that manage Cisco LCD displays, see Using RS-232 Commands to Manage Cisco LCD Professional Series Displays, page 3-29.*	
TV Type	Choose the manufacturer and the model type: • CISCO_40N • CISCO_52S • DMTECH • NEC_3210 • NEC_4010 • NEC_4610 • NEC_5710
Contrast	Choose or enter a contrast value from 0 to 100.
Brightness	Choose or enter a brightness value from 0 to 100.
Sharpness	Choose or enter a sharpness value from 0 to 100.
Color	Choose or enter a color value from 0 to 100.
Tint	Choose or enter a tint value from 0 to 100.
TV Channel	Choose or enter the analog television signal frequency for a channel from 0 to 99.
Audio Volume	Choose or enter a volume level from 0 to 100.
Mute	Choose whether to mute the display. • on • off

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
Input	Select the input type. Options differ, according to your selection from the TV Type list. • TV • RGB • RGB1 (DVI-D) • RGB2 (D-SUB) • RGB3 (BNC) • DVD/HD • Video (Composite) • Video 1 • Video 2 • Video 3 • S-Video • None (DVD) • Component • PC • HDMI • None (DVBT)
Power	Choose whether the television should be turned on. • on • off

DMP Failover Retry

Configure the recovery URL to use in case of failover and the interval between attempts to reload that URL if the connection to it is disrupted.

Name	A unique and human-readable name for the DMP failover retry task that you are configuring. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
Recovery URL	The URL to show immediately on a DMP display after its attached DMP restarts for any reason, unless other content is scheduled to be shown. If this value is blank, your DMP will reuse the most recent URL that failed to load.
Recovery Timeout (in seconds)	The maximum number of seconds that your DMP will wait for a response from the server that you identify in the Recovery URL field before it tries again to reach that server. There is no maximum number of retry attempts.

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
DMP Firmware Upgrade	

Caution *Before you install an upgrade, you must run the "Stop All Applications" system task on all the affected DMPs. To do so, click the **Schedules** tab, select the DMP group that you will upgrade, select **Stop All Applications** from the Actions list, and then click **Go**.*

Note *Before you upgrade a DMP, you must enable troubleshooting access to it. Later, to restore DMP security after the file transfer is finished, you must disable troubleshooting access. See Enabling and Disabling Troubleshooting Access on DMPs, page 3-122*

Send a firmware image or kernel file from your media library to a DMP and command the DMP to install it.

Name	A unique and human-readable name for the upgrade task that you are configuring. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
Is Kernel Upgrade?	A check box that you use to distinguish firmware upgrades from kernel upgrades.
Media Categories	An object selector that lists all the categories in your media library. From the object selector, click the one category that the Available Content table should describe. To learn more about categories, see Working with Assets and Categories in Your Media Library, page 3-63. • **Opened Media Library**—Shows all the categories in your media library until you click to hide them. • **Closed Media Library**—Hides the list of categories until you click to show them. • **Content Category**—A media library category that you created.
Available Content	Click a row to choose an asset in the category. Its attributes are: • **Name**—A unique and human-readable name that you entered. • **Source**—Says whether the asset is a file (F) or an HTTP URL (U). • **Data Type**—Identifies the type of asset. • **Size**—The file size in bytes. • **Path**—The full pathname that points to the file on the DMP. • **Description**—A brief description. The description is optional. • **Upload Started**—Time stamp (in the format `YYYY-MM-DD hh:mm:ss:ms`) that says when you started to upload the file. • **Upload Finished**—Time stamp (in the format `YYYY-MM-DD hh:mm:ss:ms`) that says when the file was completely uploaded. • **Status**—Says whether a DMP is reachable. A green icon (✔) tells you that the DMP is connected to a power source, uses a known IP address, and is reachable. A red icon (✘) tells you that the DMP is unreachable.

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
DMP Startup URL	
Causes DMPs to load and show media that you specify, immediately after every restart. **Tip** *We recommend that you enter a value for either the Video URL or the Browser URL. If both values are blank, you might find that your DMP sometimes loses its ability to play even the Shockwave Flash files that it has played successfully in the past.*	
Name	A unique and human-readable name for the startup URL task that you are configuring. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
Video URL	The HTTP URL (or local path on the DMP) that points to an encoded digital video file that a DMP should load automatically and show immediately after every restart. We do not support any use of spaces in filenames or URLs. The supported transport protocols and URL types are: • **http://**<*ip_address*>**/**<*path_and_filename*> • **udp://**<*ip_address_of_multicast_server*>**/**<*port_number*>
Browser URL	The HTTP URL of any document that TVzilla, the embedded browser on a DMP, should load automatically and show immediately after each restart. We do not support any use of spaces in URLs. We recommend that you do not point to any document or site that requires human interaction to be useful, interesting, or entertaining, because there is no keyboard or mouse that you can use to interact with what you show on a DMP display.
Reboot Necessary?	Check the check box if a DMP should restart immediately when it receives this instruction. Uncheck the check box if no immediate restart is required.
Deployment Package	
Configure a DMS-CD deployment to DMP local storage.	
Name	A unique and human-readable name for the deployment task that you are configuring for DMS-CD. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
Mount Point	Choose whether the assets should be provisioned to the flash memory card inside the DMP (usb_1) or to the one external USB drive that you attached to the DMP (usb_2). **Tip** To learn which external USB drives we support and have tested, see *Cisco Digital Media System Compatibility Information* on Cisco.com: http://www.cisco.com/en/US/products/ps6681/products_device_support_tables_list.html.
Emergency/Alarm	Check (tick) this box if the transferred files will be used during emergencies. Otherwise, do not check this box. Assets for emergencies are saved to a special partition
Application Types	The list of categories for advanced tasks. Click a category to see its tasks.

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
Available Applications	Advanced tasks in the category that you clicked. Click anywhere in a row to select the corresponding task. • **Select Applications**—Moves from the Available Applications table to the Selected Applications table the tasks that you selected. • **Name**—The unique and human-readable name that identifies a particular task. • **Description**—A brief description. The description is optional.
Selected Applications	Advanced tasks that you selected from the Available Applications table, so that you could include them in the file transfer operation that you are configuring. Click a file transfer task to select its assets for deployment. • **Move Selected Item Up/Down**—Reorders the list so that the highlighted item moves up (or down) one row, exchanging places with the item that was above it (or below it). • **Delete Selected Item**—Moves from the Selected Applications table to the Available Applications table the applications that you selected. • **Zoom In/Out**—Shows only the Selected Applications table, hiding the Available Applications table. Alternatively, shows the Selected Applications table and the Available Applications table simultaneously.

File Transfer to DMP or Server

Caution *Before you use a file transfer application to deploy the assets from a new or updated presentation to any of your DMPs, you must first run the "Stop All Applications" system task on each affected DMP. To do so, click the* ***Schedules*** *tab, select the DMP group that will use the presentation, select* ***Stop All Applications*** *from the Actions list, and then click* ***Go****.*

Use HTTP pulling or FTP to transfer to particular DMPs or to external (FTP) deployment servers the assets from presentations that you prepared in DMD, the media and electronic program guides for Enterprise TV, or the commands and settings from advanced tasks. (Although it is technically possible, it is not useful to transfer a system task, a (Go to) URL task, or a startup URL task.) See Scheduling Time Slots for Media and Events on DMPs, page 3-130.

Name	A unique and human-readable name for the file transfer task that you are configuring. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.
Description	A brief description. The description is optional.
DMP Publishing Protocol	**Caution** HTTP pulling is highly scalable but can result in a distributed denial-of-service (DDoS) attack against any server, such as your DMM appliance, that is not built and configured to withstand the resulting load. If you choose HTTP as the protocol, be sure that your DMPs will pull all files from WAAS, ACNS, or another system that can tolerate the load. Choose HTTP or FTP as the protocol for the file transfer task.
Emergency/Alarm	Check (tick) this box if the transferred files will be used during emergencies. Otherwise, do not check this box. Assets for emergencies are saved to a special partition
Application Types	The list of categories for advanced tasks. Click a category to see its tasks.

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
Available Applications	Advanced tasks in the category that you clicked. Click anywhere in a row to select the corresponding task. • **Select Applications**—Moves from the Available Applications table to the Selected Applications table the tasks that you selected. • **Name**—The unique and human-readable name that identifies a particular task. • **Description**—A brief description. The description is optional.
Selected Applications	Advanced tasks that you selected from the Available Applications table, so that you could include them in the file transfer operation that you are configuring. Click a file transfer task to select its assets for deployment. • **Move Selected Item Up/Down**—Reorders the list so that the highlighted item moves up (or down) one row, exchanging places with the item that was above it (or below it). • **Delete Selected Item**—Moves from the Selected Applications table to the Available Applications table the applications that you selected. • **Zoom In/Out**—Shows only the Selected Applications table, hiding the Available Applications table. Alternatively, shows the Selected Applications table and the Available Applications table simultaneously.

System Tasks

Predefined commands that you can send to a DMP. When you create or edit a system task, these are the elements:

- *Name—A unique and human-readable name for the system task that you are configuring. You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.*
- *Description—A brief description. The description is optional.*
- *Request Type—A list in which the options are Get and Set, in the sense that you can set new values on a DMP or instruct DMM-DSM to get information from a DMP and show that information in a popup window.*
- *Request—The command string.*

Default	**Caution** *When you restore factory-default settings on a DMP, you must set it up again. To learn how, see the quick start guide on Cisco.com for your DMP model.* Restore factory default settings.
FTP {Off | On}	Enable or disable the FTP service.
HDMI Autodetection {Off | On}	Enable or disable DMP display type autodetection.
Reboot	**Caution** *Restarting a DMP will disrupt whatever it is doing at that time.* Restart.
Save Settings	Save the active settings.
Save Settings and Reboot	Save the active settings, and then restart.

Table 3-29 Understanding and Using Advanced Tasks (continued)

Application Name	Description, Icons, and Options
Screen Resolution Autodetection {Off | On}	Enable or disable autodetection of the resolutions that your DMP displays support.
Show {Browser | Video}	Show one content plane but hide the other.
Status	See the DMP status message in real time.
Stop All Applications	Stop every application that DMPs are running.
Transparency 50%	Set the browser plane (TVzilla) to be partially transparent and show the video plane through it.
RS-232: Control DMTech displays	**Tip** *Before you pass RS-232 commands through your DMPs and to your DMP displays, first confirm that each DMP is connected to its display by a signal cable that supports RS-232 signals; otherwise, your displays will never receive the commands that you define for them.* Cause DMPs to send RS-232 management instructions to an LCD display manufactured by DMTech.
RS-232: Control supported, non-DMTech displays	**Tip** *Before you pass RS-232 commands through your DMPs and to your DMP displays, first confirm that each DMP is connected to its display by a signal cable that supports RS-232 signals; otherwise, your displays will never receive the commands that you define for them.* Cause DMPs to send RS-232 management instructions to an LCD display manufactured by Cisco or NEC.
Upgrade Status	See the DMP upgrade status message in real time.
Version	See the installed firmware version number.

Stopping All Running Events and Commands on DMPs

Procedure

Step 1 Use the Actions list or use the Play Now feature to deliver the **Stop All Applications** command to the DMP group that should receive this command.

Related Topics

- Using Play Now to Deploy Assets or Commands Immediately to DMPs, page 3-131
- Using the Actions List to Deploy Assets or Instructions Immediately to DMPs, page 3-132

Enabling and Disabling Troubleshooting Access on DMPs

- Enabling DMP Troubleshooting Access, page 3-122
- Disabling DMP Troubleshooting Access, page 3-122

Enabling DMP Troubleshooting Access

Procedure

Step 1 Choose **Digital Media Players > Advanced Tasks**.

Step 2 Click **System Tasks** in the list of defined tasks, and then click **Add New Application**.

Step 3 Enter a name and, optionally, a description.

Step 4 Choose **Set** from the Request Type list.

Step 5 Use this syntax in the Request field:
`init.startService_shell=yes&mib.save=1&mng.exit=1`.

Step 6 Click **Submit** to save your work.

Step 7 Deploy this troubleshooting access command to the DMP immediately.

Related Topics

- Disabling DMP Troubleshooting Access, page 3-122
- Using Play Now to Deploy Assets or Commands Immediately to DMPs, page 3-131
- Using the Actions List to Deploy Assets or Instructions Immediately to DMPs, page 3-132

Disabling DMP Troubleshooting Access

Procedure

Step 1 Choose **Digital Media Players > Advanced Tasks**.

Step 2 Click **System Tasks** in the list of defined tasks, and then click **Add New Application**.

Step 3 Enter a name and, optionally, a description.

Step 4 Choose **Set** from the Request Type list.

Use this syntax in the Request field:
`init.startService_shell=no&mib.save=1&mng.exit=1`.

Step 5 Click **Submit** to save your work.

Step 6 Deploy this troubleshooting access command to the DMP immediately.

Related Topics

- Enabling DMP Troubleshooting Access, page 3-122
- Using Play Now to Deploy Assets or Commands Immediately to DMPs, page 3-131
- Using the Actions List to Deploy Assets or Instructions Immediately to DMPs, page 3-132

Upgrading the Firmware or Kernel on DMPs

You can transfer a DMP kernel file or firmware image from your media library to a DMP and send commands to install it on the flash memory card inside the DMP.

Before You Begin

- Add the firmware image or kernel file to your media library.
- Stop all events and commands that are running on the DMPs to be upgraded.
- Enable troubleshooting access on the DMPs to be upgraded.

Procedure

Step 1 Choose **Digital Signage > Digital Media Players > Advanced Tasks**.

Step 2 Click **DMP Firmware Upgrade**.

Step 3 Click **Add New Application**.

Step 4 Enter a unique name and, optionally, a description.

Step 5 Check the **Is Kernel Upgrade?** check box if the asset is a kernel file.
Otherwise, if the asset is a firmware image, uncheck this check box.

Step 6 Click the parent category for this asset in the Media Categories object selector.

Step 7 Click the row that describes this asset in the Available Content table.

Step 8 Click **Submit** to save your work as a deployable action.
Alternatively, click **Cancel** to discard your work.

Step 9 Deploy your work:

- Use the Actions list to deploy it immediately.
- Use the Play now feature to deploy it immediately.
- Use the Play in Future feature to schedule a future deployment.

Step 10 After the deployment is finished:

a. Disable troubleshooting access on the DMPs that you upgraded.

b. Restart the DMPs that you upgraded.

Related Topics

- Adding One Asset at a Time to Your Media Library, page 3-67
- Stopping All Running Events and Commands on DMPs, page 3-121
- Enabling and Disabling Troubleshooting Access on DMPs, page 3-122
- Using Play Now to Deploy Assets or Commands Immediately to DMPs, page 3-131
- Using the Actions List to Deploy Assets or Instructions Immediately to DMPs, page 3-132
- Working with Future Deployments, page 3-132

Planning for and Responding to Emergencies

When emergencies of any kind affect sites where you deploy digital signage, you can use DMP displays to alert your viewers, warn them about dangers that might affect them, and direct them to safety. Or you can provide other kinds of information to them as you see fit. Until you stop playing emergency messages, they override all events that were scheduled to run automatically.

It is important to remember that emergency message insertions in your schedule will override *only* the events that are scheduled to run automatically. Furthermore, such insertions will override these events on *only* the DMPs that the emergency message insertion affected. All other DMPs in your network will abide by their schedule, without disruption.

Emergency conditions might prevent messages from playing on your DMP displays.

Note Consider very carefully which DMM-DSM users should have permission to work with your schedule and manage your DMP groups. Although all of the "Play in Future" features are suspended (for affected DMPs only) while an emergency is in progress, none of the "Play Now" features or "DMP Manager" features are suspended. Therefore, it is possible for a careless user or malicious user with sufficient permissions to start another event manually on the DMPs where an emergency message should play.

If policies in your organization require of you that one or more screen zones must show assets that are editable, you can stage the editable assets remotely on one of your external deployment servers instead of staging them locally on your DMPs. Then, the people in your organization who are entrusted to edit these assets can change them—to update the emergency message, for example—in real time.

After an emergency has stopped and normal scheduling has resumed on a DMP group and its children, any playlist or presentation that was scheduled for playback at that time will start from the beginning.

- Creating Deployment Packages for Emergencies, page 3-125
- Provisioning Emergency Assets Immediately to DMP Local Storage, page 3-126
- Scheduling the Future Staging of Emergency Assets to DMP Local Storage or to External Servers, page 3-127
- Starting Playback of an Emergency Message, page 3-128
- Stopping Playback of an Emergency Message, page 3-129

Creating Deployment Packages for Emergencies

Before You Begin

- Populate the playlist or design the presentation whose assets you will transfer to your DMPs.

Procedure

Step 1 Define a deployment task for DMS-CD to provisioning emergency assets to DMP local storage.

Alternatively, do the following to define a file transfer task that you can deploy:

a. Choose **Digital Media Players > Advanced Tasks**, and then click **File Transfer to DMP or Server**.

b. To create a new file transfer task, click **Add New Application**.

c. After the page is refreshed, do the following to define behaviors for, and save, the file transfer task:

1. Enter a specific name, such as “Fire” or “Flash Flood,” for the type of emergency. You might want to use a less specific name, such as “Emergencies,” if this task will transfer the assets for multiple presentations or playlists, or if your organization uses one playlist or presentation for emergencies of all kinds.
2. From the DMP Publishing Protocol list, choose **FTP** or **HTTP**, and then check the **Emergency/Alarm** check box.
3. If the assets are part of a saved presentation, click **Presentations** in the Applications list. Alternatively, if the assets are part of a saved playlist, click **Playlists**.
4. After the page is refreshed, click in the Available Applications list the name of the presentation or playlist whose assets should be transferred, and then click **Select Applications**.
5. (Optional) To transfer the assets for multiple playlists and presentations, repeat the preceding step.
6. To save this task, so that it becomes available for deployments, click **Submit**.

Note Even though you created and saved a file transfer task, you have not used it yet. Your DMPs will not have local copies of the emergency assets until *after* you run this task successfully.

Step 2 Provision the emergency assets to your DMPs.

Related Topics

- Working with Presentations, Templates, and Presentation Playlists for Digital Signage, page 3-71
- Using DMS-CD Deployment Packages to Provision Assets to DMPs, page 3-105
- Using the Actions List to Provision Emergency Assets Immediately, page 3-126
- Using the Play Now Feature to Provision Emergency Assets Immediately, page 3-126
- Scheduling the Future Staging of Emergency Assets to DMP Local Storage or to External Servers, page 3-127

Provisioning Emergency Assets Immediately to DMP Local Storage

- Using the Actions List to Provision Emergency Assets Immediately, page 3-126
- Using the Play Now Feature to Provision Emergency Assets Immediately, page 3-126

Using the Actions List to Provision Emergency Assets Immediately

Before You Begin

- Create and save deployable messages for playback during emergencies.

Procedure

Step 1 Click the **DMP Manager** tab and then, in the DMP Groups tree, click the name of the group whose member DMPs should have local copies of the emergency assets.

Step 2 In the Actions list, scroll down to the name of the deployment task or the file transfer task that you created, and then click that name.

Step 3 Click **Go** to issue the command immediately that transfers copies of the assets to your DMPs, and to create as many Go-to URL entries (all using the prefix “Alarm”) as the number of presentations and playlists that you chose.

Related Topics

- Using DMS-CD Deployment Packages to Provision Assets to DMPs, page 3-105
- Provisioning Emergency Assets Immediately to DMP Local Storage, page 3-126
- Scheduling the Future Staging of Emergency Assets to DMP Local Storage or to External Servers, page 3-127
- Starting Playback of an Emergency Message, page 3-128
- Stopping Playback of an Emergency Message, page 3-129

Using the Play Now Feature to Provision Emergency Assets Immediately

Before You Begin

- Create and save deployable messages for playback during emergencies.

Procedure

Step 1 Choose **Schedules > Play Now**.

Step 2 From the Select an Event Type list, choose **System Tasks** and then click **Select System Tasks**.

Step 3 Do one of the following after the Select Event dialog box opens:

- If you created a DMS-CD deployment task for this emergency, click **Deployment Package** in the Type column, and then click the name of the task in the Application Name column.
- If you created a file transfer task for this emergency, click **File Transfer to DMP or Server** in the Type column, and then click the name of the task in the Application Name column.

Step 4 Click **OK** to confirm your selection and close the Select Event dialog box.

Step 5 Click the name in the DMP Groups tree of the group whose member DMPs should have local copies of the emergency assets.

Step 6 Click **Submit** to issue the command immediately that transfers copies of the assets to your DMPs, and to create as many Go-to URL entries (all using the prefix "Alarm") as the number of presentations and playlists that you chose.

Related Topics

- Using DMS-CD Deployment Packages to Provision Assets to DMPs, page 3-105
- Using the Actions List to Provision Emergency Assets Immediately, page 3-126
- Scheduling the Future Staging of Emergency Assets to DMP Local Storage or to External Servers, page 3-127
- Starting Playback of an Emergency Message, page 3-128
- Stopping Playback of an Emergency Message, page 3-129

Scheduling the Future Staging of Emergency Assets to DMP Local Storage or to External Servers

Before You Begin

- Create and save deployable messages for playback during emergencies.

Procedure

Step 1 Choose **Schedules > Play in Future**.

Step 2 From the calendar, choose the year, month, and day when the assets should be transferred. The timeline is updated automatically, so that it shows the schedule for that day.

Step 3 Choose **Advanced Tasks** from the Add an Event list, which is located under the timeline.

Step 4 Use features of the Schedule Task dialog box to choose the DMPs or the external servers.

a. Click **Select Group**, and then click the name of the group whose members should have local copies of the emergency assets.

b. Click **OK** to confirm your selection and close the Select DMP Group dialog box.

Step 5 Choose the task:

a. Click **Select Advanced Tasks**.

b. Do one of the following after the Select Advanced Tasks dialog box opens:

- If you created a file transfer task for this emergency, click **File Transfer to DMP or Server** in the Types list, and then click the name of the task in the Application Name column.
- If you created a DMS-CD deployment task for this emergency, click **Deployment Package** in the Types list, and then click the name of the task in the Application Name column.

Note You cannot use DMS-CD to deploy to an external server. DMS-CD supports deployments to DMPs only.

c. Click **OK** to confirm your selection and close the Select Advanced Tasks dialog box.

You can use the provided controls to adjust the start and stop time for this task. Remember to allow sufficient time for the transfer to complete. The amount of time required can vary according to the cumulative file size of the selected assets, the capacity of your network, any congestion in your network, and possibly other factors. Emergency conditions might prevent messages from playing on your DMP displays.

Do not use any of the provided controls for repeating a task.

Step 6 Click **Save** to confirm your selections and close the Schedule Task dialog box.

Step 7 Click **Save All** to save your work in the schedule before you try to publish it.

Step 8 Click **Publish All** to transmit the deployment according to the schedule that you defined.

Related Topics

- Configuring the Settings to Deploy to External Servers, page 3-148
- Using DMS-CD Deployment Packages to Provision Assets to DMPs, page 3-105
- Provisioning Emergency Assets Immediately to DMP Local Storage, page 3-126
- Starting Playback of an Emergency Message, page 3-128
- Stopping Playback of an Emergency Message, page 3-129

Starting Playback of an Emergency Message

Before You Begin

- Create and save deployable messages for playback during emergencies.
- Provision assets for the emergency message to DMP local storage or a network server.

Procedure

Step 1 Do one of the following:

- Choose **Digital Media Players > Emergencies**.
- Choose **Schedules > Emergencies**.

Step 2 Click **Start Emergency**.

Step 3 From the Select Emergency list, choose the playlist or presentation that your DMPs should play during the type of emergency that is now in progress.

Entries that you see in the Select Emergency list are derived from file transfer tasks that you saved after checking the Emergency/Alarm check box. You cannot add the “ALARM” prefix manually to the name of a (Go to) URL task to make the task appear in the Select Emergency list. Nor can you delete the “ALARM” prefix manually from the name of a (Go to) URL task to exclude the task from the Select Emergency list.

Step 4 Expand the Select DMP Group tree, click the entry for the DMP group whose member DMPs should all announce the emergency, and then click **Start**.

If you choose a DMP group that has child groups, the child groups and their member DMPs are also selected automatically.

While this emergency is in-progress, the event-scheduling features at Schedule > Play in Future will be suspended temporarily for whichever group and children you chose. However, your other DMP groups will not be affected. You still can schedule events for those other groups. Later, after you stop this emergency, the event-scheduling features at Schedule > Play in Future will be restored for the group and children that you chose.

Step 5 To confirm your selections and start playback immediately of your emergency presentation or emergency playlist, click **OK**. (Emergency conditions might prevent messages from playing on your DMP displays.) Alternatively, to discard your selections without playing any assets for any emergency, click **Cancel**.

A message tells you whether you submitted the emergency successfully. After you dismiss the message, the page is refreshed. If you submitted the emergency, the DMP group that you chose in Step 4 is colored red in the Select DMP Group tree.

Tip You can submit an emergency to a DMP group while it is showing a playlist or presentation that describes some other emergency. There is no need to explicitly stop playback of the current emergency message before you start another one.

Related Topics

- Planning for and Responding to Emergencies, page 3-124
- Scheduling the Future Staging of Emergency Assets to DMP Local Storage or to External Servers, page 3-127
- Stopping Playback of an Emergency Message, page 3-129

Stopping Playback of an Emergency Message

Before You Begin

- Start playback of an emergency message.

Procedure

Step 1 Do one of the following:

- Choose **Digital Media Players > Emergencies**.
- Choose **Schedules > Emergencies**.

Step 2 Click **Stop Emergency**.

Step 3 Expand the Select DMP Group tree, click the DMP group that is colored red, and then click **Stop**.

If you choose a DMP group that has child groups, the child groups and their member DMPs are also selected automatically.

Step 4 To confirm your selections, which will stop playback of your emergency message and restore normal scheduling for the DMP group (and children) that you chose, click **OK**. Alternatively, to discard your selections without stopping the emergency, click **Cancel**.

A message tells you whether you stopped the emergency successfully. After you dismiss the message, the page is refreshed. If you stopped the emergency, the DMP group that you chose in Step 3 is no longer colored red in the Select DMP Group tree.

If you selected a DMP group whose member DMPs were not showing emergency messages, these DMPs will stop and then restart their playback of whatever asset they are scheduled to show.

If separate emergencies were in effect simultaneously across multiple DMP groups and you stopped the emergency for only one group, remember that the event-scheduling features at Schedule > Play in Future still are suspended for all groups where emergencies remain in effect.

Related Topics

- Starting Playback of an Emergency Message, page 3-128

Scheduling Time Slots for Media and Events on DMPs

Tip Network congestion or other performance problems at a DMP deployment site might cause the assets that you deploy to pause, stop, or play at unacceptably low speeds. To work around this problem, troubleshoot network performance at the deployment site and consider upgrading its network or applying policies to shape and prioritize its traffic.

In DMM-DSM, you can schedule events to start manually ("Play Now") or run automatically ("Play in Future"). Topics in this section tell you how to deliver to your DMPs and servers the assets and commands that you saved in DMM-DSM, as well as the TV channels and VoDs that you saved in DMM-ETV.

- Using Play Now to Deploy Assets or Commands Immediately to DMPs, page 3-131
- Working with Future Deployments, page 3-132
- Preempting a Recurring Event for a One-time Event, page 3-140
- Using Deployment Reports, page 3-140

Note To learn how to configure DMM-DSM support for ACNS and WAAS, see Configuring the Settings to Use ACNS or WAAS, page 3-147.

Using Play Now to Deploy Assets or Commands Immediately to DMPs

In DMM-DSM and DMM-ETV, you can schedule any command, event, presentation, playlist, TV channel, electronic program guide, VoD, or anything else for deployment to DMPs. You can deploy immediately to one DMP or to multiple DMPs that all use the same one DMP group as their parent.

Note

- In this release, we do not support immediate deployments to external (FTP) servers.
- We recommend that you avoid using immediate deployments with ACNS, due to the amount of time required to distribute assets throughout your network and to its edge. If you do so despite this recommendation, DMM-DSM always uses the default ACNS channel. You cannot select any other channel.
- We recommend that you avoid using immediate deployments with WAAS, due to the amount of time required to distribute assets throughout your network and to its edge.

Before You Begin

- You must already have created and saved what you will deploy. See Working with Assets and Categories in Your Media Library, page 3-63. See also Using Advanced Tasks, page 3-111.
- You must already have created the DMP group whose member DMPs should receive the deployment. See Managing and Grouping Your DMPs, page 3-12.

Procedure

Step 1 Choose **Schedules > Play Now**.

Step 2 From the Event Type list, choose **Digital Signage**, **Enterprise TV**, or **System Tasks**, depending on which of these is the deployment type.

The option that you choose from the Event Type list causes a button to be shown. Its name is derived from your choice.

Step 3 To choose specifically what should be deployed to your DMPs, click this button.

A dialog box opens, from which you can choose specifically what to deploy. The name and elements of this dialog box will vary, depending on which option you chose from the Event Type list.

Step 4 Click the name of the instruction or asset to be deployed, and then do one of the following:

- To confirm your selection and close the dialog box, click **OK**.
- To discard your selection and close the dialog box, click **Cancel**.

Step 5 In the **DMP Groups** object selector, click the name of a DMP group to see a list of its member DMPs.

Step 6 In the list of DMPs, Ctrl-click the name of each DMP that should receive the deployment.

Step 7 Do one of the following:

- To confirm your selections and deploy the element immediately, click **Submit**.
- To discard your work for this deployment, click **Cancel**.

Related Topics

- Using the Actions List to Deploy Assets or Instructions Immediately to DMPs, page 3-132
- Working with Future Deployments, page 3-132

Using the Actions List to Deploy Assets or Instructions Immediately to DMPs

Procedure

Step 1 Choose **Digital Media Players > DMP Manager**.

Step 2 Do either of the following:

- Navigate in the DMP Groups object selector, expanding its levels as necessary until you find in its hierarchy the parent group for a DMP that should receive assets or instructions. Then, click the name of this DMP group in the object selector.
- Choose an option from the Filter list to restrict which DMPs the DMP List table describes.

Step 3 (Optional) If DMP data in the table straddles multiple pages, use pagination controls above the table to move between pages.

Step 4 Choose which DMPs in the DMP List table should receive the assets or instructions that you will deploy.

Step 5 Choose an action from the Action list, above the DMP List table.

Step 6 Click **Go**. The specified action starts immediately.

Related Topics

- Using Play Now to Deploy Assets or Commands Immediately to DMPs, page 3-131
- UI Reference: Top-Level Settings to Manage DMPs and DMP Groups, page 3-14
- Scheduling Time Slots for Media and Events on DMPs, page 3-130

Working with Future Deployments

You can schedule future time slots for elements that you will deploy once or repeatedly to:

- One registered DMP, if it belongs to a DMP group which does not contain any other DMPs.
- Multiple registered DMPs that all use the same one DMP group as their parent.
- All of your registered external (FTP) deployment servers; the schedule treats all of your registered external servers identically.

You can schedule a deployment to occur at any time and recur any number of times (within reason), and you can schedule any number of deployments. The schedule can manage multiple deployments simultaneously and—assuming that a DMP has a fast network connection and you send deployments to it that are not mutually exclusive—a DMP can receive multiple deployments simultaneously.

Tip You can view two types of summary for any scheduled deployment. See:

- Understanding Tooltips in the Schedule Timeline, page 3-137
- Viewing Status Messages Inline for Deployed Events in the Schedule Timeline, page 3-138

This section contains these topics:

- Best Practices for Managing and Maintaining the Schedule, page 3-133
- Understanding Future Deployments for Presentations, page 3-134
- Understanding Time Zones in the Schedule, page 3-135
- Scheduling the Time Slot for a Future Event, page 3-135

Best Practices for Managing and Maintaining the Schedule

Avoid placing entries in your schedule that recur often and persist for an unreasonably long time, and also avoid all other practices that might cause your schedule to become too large. Otherwise, DMM might not generate your manifest files quickly enough and your ACNS CDM or root CE might time out. We recommend that you apply this rough algorithm:

- An entry that recurs daily should persist in your schedule for no more than 3 days.
- An entry that recurs weekly should persist in your schedule for no more than 3 weeks.
- Almost never schedule event instances that extend more than 60 days into the future. The exceptions to this rule are:
  - An entry that recurs monthly can persist in your schedule for as long as 3 months.
  - An entry that recurs annually can persist in your schedule for as long as 3 years.

Furthermore, we recommend these additional best practices:

- Avoid deploying assets to any given DMP more than once per day. Ideally, all deployments should occur outside your normal business hours. You can schedule a deployment package that contains assets for more than one presentation if the target DMP has sufficient local storage to save the entire package. Applied outside normal business hours, this simple method reduces your dependence on daytime deployments, which might otherwise disrupt your digital signage temporarily.
- Avoid having any more than approximately 200 events (of all kinds, combined) saved in your schedule at any one time.
- Avoid having any more than approximately 100 presentations saved in DMD at any one time. If your presentations database grows too large, you might be prevented from designing, saving, and deleting presentations, and the start time might be disrupted for your scheduled events.

- Instead of creating a presentation that is similar to one that used to be in your schedule, simply modify the old presentation and reschedule it.
- Avoid extending the playback window for your customer-facing presentations and playlists beyond the actual hours when customers will see them.
- If you are not sure when or how many times a task or presentation occurs in your schedule, you can use the Schedule Reports feature.

Understanding Future Deployments for Presentations

You can deploy only one presentation at a time if the assets that it uses should be stored directly on your DMPs. To check the free space on the SD memory card in a DMP, choose **Digital Media Players > DMP Manager**, and then look in the DMP List table for the amounts of free space in internal and external storage. Alternatively, log in to the local instance of DMPDM, and then click **Internal Storage**. If you want a particular presentation to play during stage-one failover on a DMP, the combined file size of all its assets must not be any more than:

- 0.9 GB (900 MB) on a DMP 4300G.
- 1.9 GB on a DMP 4305G.
- 3.8 GB on a DMP 4400G.

Caution Do not delete the scheduled deployment job for a presentation to stop it from playing on your DMPs. If you delete the deployment job, your DMPs will continue to use the presentation as if you did nothing. This happens because each deployment job includes an instruction to stop, but you delete that instruction when you delete the deployment job that contains it. To stop your DMPs from using a presentation in this case, create and deploy an advanced task to *stop all applications*. See the "System Tasks" row in Table 3-29 on page 3-113.

Note It is important that you understand all of the possible limitations and effects of deploying to an FTP server, as well as the exact circumstances that lead to these effects. Files are sometimes unplayable or deleted automatically; subdirectories are sometimes created automatically; and values that you enter in DMM-DSM are sometimes changed automatically.

- Video files do not play at all if you deploy a presentation to an FTP server when the presentation uses MPEG files that are:
  - Requested through Microsoft Proxy Server.
  - Requested through Microsoft Internet Security and Acceleration Server.
- When your media library in DMM-DSM is the source for a file that you deploy as part of a presentation, and when you select an FTP server as the target to receive that file, DMM-DSM transfers copies of the relevant file to *all* of the FTP servers that you have registered. After the transfer is completed, DMM-DSM *deletes* the original file from its media library, and then changes the relevant presentation so that it uses a URL instead of a local path. The URL that DMM-DSM enters automatically is specific to whichever FTP server you registered first.
- When an HTTP URL is the source for a deployed file, and when the pathname on the source server contains subdirectories that do not exist on the target FTP server, DMM-DSM automatically creates the required subdirectories on the FTP server.

Understanding Time Zones in the Schedule

Future time slots that the schedule describes will always designate hours in boldface numerals according to the UTC time zone offset for the locale where your DMM appliance is installed. If you are working from any other time zone when you view the schedule, this offset will differ from the offset for your locale and the difference might be confusing. Furthermore, the offset might be confusing even if you and your DMM appliance are together in one time zone but you want to schedule time slots for a DMP that is in some other time zone.

In either scenario, you can cause the schedule to designate hours from two time zones simultaneously. One of these time zones is always the one for your DMM appliance. To choose the second time zone (whether it is for your locale or the locale of a DMP), select a named UTC offset option, such as "America/Los Angeles," from the untitled list above the schedule.

The schedule is updated immediately to show designated hours from the second time zone that you selected, in addition to the designated hours that it always shows for your DMM appliance:

- Small, plain numerals designate hours for the UTC-offset locale that you selected.
- Large, boldface numerals designate hours for the locale where your DMM appliance is installed.

Scheduling the Time Slot for a Future Event

Tip Displayed times for deployments in the schedule are relative to the time zone where you deployed your DMM appliance, not the time zone where you deployed any DMP, and not the time zone for any other locale. You set the time zone value for your DMM appliance when you used AAI to configure it and you can use AAI to correct the time zone value if it is wrong.

- To learn how to set or reset the time zone, see the "Administering a DMM Appliance" chapter in *Appliance Administration Guide for Cisco Digital Media System 5.1.x* on Cisco.com.
- To understand how the schedule represents time zones, see Understanding Time Zones in the Schedule, page 3-135.
- If the user interface for the schedule does not load correctly in your browser, see *Release Notes for Cisco Digital Media System 5.1.x* on Cisco.com.

Before You Begin

- You must already have created and saved the elements that you will deploy. See Working with Assets and Categories in Your Media Library, page 3-63.
- You must already have created the DMP group that should receive a deployment. See Managing and Grouping Your DMPs, page 3-12.

Procedure

Step 1 Choose **Schedules > Play in Future**.

Step 2 From the calendar, choose the year, month, and day when the deployment should start.

The timeline is updated automatically, so that it shows the schedule for that day.

Step 3 From the Event Type list, under the timeline, choose the deployment type.

Step 4 When the Schedule Task dialog box opens, complete these steps:

a. Click **Select Group**, click the group name for the DMPs or the external (FTP) deployment servers that should receive this deployment, and then click **OK**.

b. Click the **Select** <*event_type*> **Tasks** button, click the name of the specific event to be deployed, and then click **OK**.

c. To designate the start and stop times for this event:

- In the Start Time area—For the deployment date that you chose in Step 2, enter the hour (numeric, in the range from 1 to 12) and minute (numeric, in the range from 00 to 59) when DMPs should start this event, and then enter either AM or PM as the period.
- In the Stop Time area—Use the same method to specify when DMPs should stop this event.

Step 5 From the Repeat list, choose the recurrence interval for this event. The intervals are:

- Never
- Every Day
- Every Week
- Every Month
- Every Year

Step 6 To save your selections, click **Save All**.

Note

- If you do not click Save All, the schedule discards your selections immediately after you refresh your browser or load any other page.
- You must click Save All even if you do not plan to deploy the event right away. Later, when you are ready to deploy the event, click Publish All.

Step 7 (Optional) To make copies of an event in the schedule, so that it recurs as many times as you want and at any interval that you specify:

a. Click the event description on the timeline, and then choose **Add an Event > Duplicate All**.

b. Click the first **Select** button to choose the group whose event will be copied, and then click **OK**.

c. Click the second **Select** button to choose the group that should receive the copy, and then click **OK**.

d. Click **Save**.

Step 8 To transmit the deployment according to the schedule that you defined—and synchronize it if you use ACNS or WAAS—click **Publish All**.

Understanding Tooltips in the Schedule Timeline

Whenever your pointer hovers over a event in the timeline, the schedule shows a tooltip. Information in the tooltip describes the current status of the corresponding event and summarizes its most important attributes. Information in the tooltip is organized as follows:

Table 3-30 Schedule Timeline Tooltips

Category	Description
Status	One of the following: • **New**—You made selections to define a new deployment. However, because you have not yet clicked Save, the schedule will discard your selections if you refresh your browser or load any other page in it. • **Saved**—You made selections to define a new deployment and you clicked Save. You created a permanent record for the deployment, but have not scheduled it yet to run. • **Published**—You made selections to define a deployment, you saved your selections, and the deployment is scheduled to run at the times that you specified. • **Scheduled**—The deployment is occurring now. • **Finished**—The deployment occurred at the scheduled time and is now stopped.
App	The selection that you made from the Applications list.
Group	The selection that you made from the DMP Groups list.
From	The date and time when the deployment is (or was) scheduled to start.
To	The date and time when the deployment is (or was) scheduled to stop.
Repeat	The number of times that the deployment is scheduled to recur.
Start Cmd Result (Total/OK/Failed)	*N*/*N*/*N*, where: • The first *N* is a color-coded (black) numeral that counts the total number of times that DMM-DSM tried to deploy the command to start the designated task. • The second *N* is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in deploying the command to start the designated task. • The third *N* is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deploy the command to start the designated task.
Stop Cmd Result (Total/OK/Failed)	*N*/*N*/*N*, where: • The first *N* is a color-coded (black) numeral that counts the total number of times that DMM-DSM tried to deploy the command to stop the designated task. • The second *N* is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in deploying the command to stop the designated task. • The third *N* is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deploy the command to stop the designated task.

Viewing Status Messages Inline for Deployed Events in the Schedule Timeline

Whenever you let your pointer hover over a scheduled deployment in the timeline, DMM-DSM describes the current status of the corresponding deployment and summarizes its most important attributes. Information in the popup is organized as follows:

Table 3-31 Elements to Describe the Current Status of Scheduled Events

Category	Description
Application Name	The selection that you made from the Applications list.
Application Type	Either Digital Media Designer (see Working with Presentations, Templates, and Presentation Playlists for Digital Signage, page 3-71) or one of the following (see Using Advanced Tasks, page 3-111): • (Go to) URL • Deployment Package • DMP Audio/Video Settings • DMP Discovery (autoregistration) • DMP Display Controls • DMP Failover Retry • DMP Firmware Upgrade • DMP Startup URL • File Transfer to DMP or Server • System Tasks
From	The date and time when the deployment is (or was) scheduled to start.
To	The date and time when the deployment is (or was) scheduled to stop.
How Often	The number of times that the deployment is scheduled to recur.
Status	One of the following: • **New**—You made selections to define a new deployment. However, because you have not yet clicked Save, DMM-DSM will discard your selections if you refresh your browser or load any other page in it. • **Saved**—You made selections to define a new deployment and you clicked Save. DMM-DSM created a permanent record for the deployment, but has not scheduled it yet to run. • **Published**—You made selections to define a deployment, you saved your selections, and DMM-DSM has scheduled the deployment to run at the times that you specified. • **Scheduled**—The deployment is occurring now. • **Finished**—The deployment occurred at the scheduled time and is now stopped.
Group	The selection that you made from the DMP Groups list.

Table 3-31 Elements to Describe the Current Status of Scheduled Events (continued)

Category	Description
Start Command Summary (Total/OK/Failed)	*N*/*N*/*N*, where: • The first *N* is a color-coded (white) numeral that counts the total number of times that DMM-DSM tried to deploy the command to start the designated task. • The second *N* is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in deploying the command to start the designated task. • The third *N* is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deploy the command to start the designated task.
Stop Command Summary (Total/OK/Failed)	*N*/*N*/*N*, where: • The first *N* is a color-coded (white) numeral that counts the total number of times that DMM-DSM tried to deploy the command to stop the designated task. • The second *N* is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in deploying the command to stop the designated task. • The third *N* is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deploy the command to stop the designated task.

In addition, a status bar at the bottom of the popup window counts the number of errors associated with the described deployment.

Preempting a Recurring Event for a One-time Event

In some cases, you might want to show a presentation one time, or for a limited time, that overlaps with a recurring deployment.

For example, you might schedule a presentation to run from 9:00 a.m. to 6:00 p.m. every weekday in the month of March, but want to show a different presentation on the second Tuesday in March. The problem in this scenario is that your DMP cannot prioritize contradictory events that are scheduled to start simultaneously. However, there are three possible methods that you might use to schedule a preemption. In this scenario, you can do any of the following:

Method 1	1. Schedule and deploy a recurring event for the first uninterrupted span of dates. 2. Schedule and deploy the one-time event. 3. Schedule and deploy a copy of the first recurring event for the second uninterrupted span of dates.
Method 2	Create two DMP groups. In this scenario, we will call them Group_A and Group_B. • For Group_A, schedule an event that recurs throughout the entire span of dates. • For Group_B, schedule the one-time event. Then complete these steps: 1. When the one-time event should begin, move your DMPs from Group_A to Group_B. 2. When the one-time event should end, move your DMPs back to Group_A, and then select **Schedules > Play Now**. 3. In the **DMP Groups** object selector, click the **Group_A** name to see its member DMPs in the untitled table. 4. In the untitled table, Ctrl-click each DMP that should start again to show the recurring presentation. 5. Choose **Select an Event Type > Digital Signage** and then click **Select Digital Signage**. 6. Click the presentation name and then click **OK**.
Method 3	1. Schedule the recurring event to run every weekday, as you would expect, from 9:00 a.m. to 6:00 p.m. 2. Use one-time scheduling to start an advanced task, such as the (Go to) URL task if the event is a live video stream, at 9:05 a.m, so that it interrupts the recurring event instead of conflicting with its start time, and then schedule this one-time event to stop at 6:00 p.m. In this method, the one-time event cannot be a presentation; it must be an advanced task. The recurring task will begin again, as expected, the next day.

Using Deployment Reports

You can view, configure, and export "proof-of-play" reports for the presentations and tasks that you have deployed in your digital signage network.

Procedure

Step 1 Choose **Schedules > Reports**.

Step 2 Check the check boxes for the relevant DMP groups.

Step 3 Enter date range values in the From field and the To field.

Step 4 From the Report Type list, select the report type.

Step 5 Click **Go**.

Using Administrative Options

This section contains these topics:

- Configuring User Rights and Permissions for Digital Signage and Enterprise TV, page 3-141
- Limiting User Permissions, page 3-143
- Configuring DMM-DSM Server Settings, page 3-146
- Configuring the Settings to Use ACNS or WAAS, page 3-147
- Configuring the Settings to Deploy to External Servers, page 3-148

Configuring User Rights and Permissions for Digital Signage and Enterprise TV

In DMM-DSM, you can manage access rights and permission levels for administrators and members of the Digital Signage user group that is managed at a higher level in DMS-Admin. The rights and permissions that you manage in DMM-DSM are ones that pertain to digital signage and Enterprise TV.

Tip To understand the high-level concepts and workflow for managing user accounts, access rights, and permission levels, see Understanding User Management Concepts and Workflow, page 2-6.

Before You Begin

To see and use the Settings tab, you must be logged in an administrator.

Procedure

Step 1 Choose **Settings > User Accounts**, and then choose the options that meet your requirements.

Step 2 Click **Submit**.

Related Topics

- Table 3-32 on page 3-142

Table 3-32 Elements for Configuring DMM-DSM User Accounts

Element	Description
Users List	
Choose an account whose digital signage or Enterprise TV access rights and permission levels you will edit. When you click a username, DMM-DSM automatically shows the Change User pane for the corresponding user account.	
Change User pane	
A worksheet where you edit attributes of the selected user account.	
Name	A unique username. The name is unique in the sense that you have not used it as the name for any other user account that you created in DMM-DSM. You must enter the username.
Description	Optional, brief description of the user account and its purpose.
Password | Repeat	The password for the user account. You must enter a password, and then reenter it.
Administrator	The check box to check if this account belongs to an administrator. When a user account belongs to an administrator, the corresponding user is granted full permissions to create, read, write, and delete every object type without limitation. Otherwise, uncheck this check box. After you uncheck it, you must manually change the permissions for each user role and each object type that pertain to this user account. Because we recommend that you follow a best practice in which you create only a few users, this check box is checked by default each time that you add a user account.
Role	The list of user role types. Each type of role is associated with some of the features in DMM-DSM. Choose a role to see or change the corresponding permissions for the user whose account you are adding or editing. After you choose a role, you can set the permissions to create, read, write, and delete objects that are relevant to that role. Depending on the role that you choose, an object might be a registered DMP, a registered FTP server, a category in your digital media library, an application that you configured, or the target device (DMP or FTP server) to receive a scheduled deployment. • **DMP Manager**—A user with permissions to manage every DMP in your digital signage network, only the DMPs within particular DMP groups that you specify, or no DMPs whatsoever. • **Content Manager**—A user with permissions to manage every category in your media library, only the particular categories that you specify, or none of the categories. • **Application Manager**— A user with permissions to work with every application type, only the particular application types that you specify, or no applications of any kind. • **Publisher Manager**—A user with permissions to schedule media deployments to all of your registered DMPs and external (FTP) deployment servers, only the particular DMPs and FTP servers that you specify, or none of the registered DMPs or FTP servers.
untitled table	
Rows in the untitled table describe user account permissions.	
Objects	Contains the Create, Read, Write, and Delete buttons. To see or edit any one of these types of permissions as it applies to the specified user, you must first click the corresponding button. If you uncheck both the All check box and the Selected check box in the column under a button, DMM-DSM automatically shows the words “No permissions” in red, to signify that the user does not have any permissions of that type in relation to the objects that are relevant to the role that you selected from the Role list.

Table 3-32 Elements for Configuring DMM-DSM User Accounts (continued)

Element	Description
All	Contains the check box that you select to assign global permissions to the user, so that he or she can always create, see, edit, and delete objects that pertain to whichever user role you selected from the Role list. Click the relevant button, and then check the corresponding check box in the All row.
Selected	Contains the check box that you select to assign limited permissions to the user, so that he or she can create, see, edit, and delete only a subset of the objects that pertain to the user role that you selected from the Role list. Click the relevant button, select the corresponding check box in the Selected row, and then choose the subset where the user permissions should apply. Depending on the object type, you might choose the subset by clicking its name in an object selector or clicking its name in a table; DMM-DSM automatically shows either an object selector or a table from which to choose the subset.

Limiting User Permissions

You can restrict the permissions that you grant to particular user accounts in DMM-DSM. For example, you might grant a user the permission to use only the advanced tasks that you choose or to deploy presentations to only the DMPs that you choose.

The list of "applications" that this section describes includes two applications (called "Enterprise TV" and "Enterprise TV VoD") in addition to the full list of advanced tasks. Each Enterprise TV user must have at least read-only permission to the "Enterprise TV" application, which pertains to the electronic program guide.

Tip To understand the high-level concepts and workflow for managing user accounts, access rights, and permission levels, see Understanding User Management Concepts and Workflow, page 2-6.

Before You Begin

To see and use the Settings tab, you must be logged in an administrator.

Procedure

Step 1 Choose **Settings > User Accounts**.

Step 2 In the Users list, click a username to highlight it. DMM-DSM automatically shows the Change User pane for the corresponding user account, where you can edit the permissions that apply to the user.

Step 3 Choose options to limit any or all of the permissions that you will grant to the user.

If you do not understand your options, see Table 3-32 on page 3-142 or consider the examples in these scenarios:

- Scenario 1: User Who Can Work with Assets for Signage or Enterprise TV but Cannot Schedule Time Slots, page 3-144
- Scenario 2: User Who Can Administer One DMP Group but Cannot Manage Assets, page 3-144

- Scenario 3: User Who Can Administer One DMP Group, Manage Assets, and Schedule Time Slots, page 3-145
- Scenario 4: User Who Can Schedule Time Slots for One DMP Group But Has No Other Rights, page 3-146

By limiting permissions in specific ways, similar to the ways that these examples demonstrate, you can assign highly specialized combinations of access to any DMM-DSM user. The examples in these scenarios describe some of the commonest types of limited permissions that you might want to assign and tell you how to assign them.

Step 4 After you have selected the options to meet your requirements, click **Submit**.

Scenario 1: User Who Can Work with Assets for Signage or Enterprise TV but Cannot Schedule Time Slots

To restrict user permissions as they should be restricted in this scenario, you would do the following.

1. From the Role list, select **DMP Manager**, check the **All** check box in the Read column, and then uncheck every check box in the Create, Write, and Delete columns.
2. From the Role list, select **Content Manager**, and then check the **All** check box in the Create, Read, Write, and Delete columns.
3. From the Role list, select **Application Manager**, and then check the **Selected** check box in the Create, Read, Write, and Delete columns. Next, do all of the following:
   - Click **Create**, and then—in the table that associates permissions with applications—check only these check boxes: **Digital Media Designer**, **Enterprise TV**, **Enterprise TV VoD**, and (**Go to) URL**.
   - Click **Read**, and then—in the table that associates permissions with applications—check only these check boxes: **Digital Media Designer**, **Enterprise TV**, **Enterprise TV VoD**, and (**Go to) URL**.
   - Click **Write**, and then—in the table that associates permissions with applications—c heck only these check boxes: **Digital Media Designer**, **Enterprise TV**, **Enterprise TV VoD**, and (**Go to) URL**.
   - Click **Delete**, and then—in the table that associates permissions with applications—check only these check boxes: **Digital Media Designer**, **Enterprise TV**, **Enterprise TV VoD**, and (**Go to) URL**.
4. From the Role list, select **Publisher Manager**, check the **All** check box in the Read column, and then uncheck every check box in the Create, Read, Write, and Delete columns.
5. Click **Submit**.

Scenario 2: User Who Can Administer One DMP Group but Cannot Manage Assets

To restrict user permissions as they should be restricted in this scenario, you would do the following.

1. From the Role list, select **DMP Manager**, and then check the **Selected** check box in the Create, Read, Write, and Delete columns. Next, do all of the following:
   - Click **Create**. Then, in the object selector, click a DMP group to highlight it.
   - Click **Read**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.

- Click **Write**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.
- Click **Delete**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.

2. From the Role list, select **Content Manager**, and then uncheck every check box in the Create, Read, Write, and Delete columns.
3. From the Role list, select **Application Manager**, and then—in the table that associates permissions with applications—check only these check boxes: **DMP Discovery**, **DMP Video/Audio Settings**, **System Tasks**, **DMP Firmware Upgrade**.
4. From the Role list, select **Publisher Manager**, and then check the **Selected** check box in the Create, Read, Write, and Delete columns. Next, do all of the following:
   - Click **Create**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.
   - Click **Read**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.
   - Click **Write**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.
   - Click **Delete**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.
5. Click **Submit**.

Scenario 3: User Who Can Administer One DMP Group, Manage Assets, and Schedule Time Slots

To restrict user permissions as they should be restricted in this scenario, you would do the following.

1. From the Role list, select **DMP Manager**, and then check the **Selected** check box in the Create, Read, Write, and Delete columns. Next, do all of the following:
   - Click **Create**. Then, in the object selector, click a DMP group to highlight it.
   - Click **Read**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.
   - Click **Write**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.
   - Click **Delete**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.
2. From the Role list, select **Content Manager**, and then select the **All** check box in the Create, Read, Write, and Delete columns.
3. From the Role list, select **Application Manager**, and then—in the table that associates permissions with applications—check every check box.
4. From the Role list, select **Publisher Manager**, and then check the **Selected** check box in the Create, Read, Write, and Delete columns. Next, do all of the following:
   - Click **Create**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.
   - Click **Read**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.

- Click **Write**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.
- Click **Delete**. Then, in the object selector, click and highlight the same DMP group that you highlighted for the DMP Manager role.

5. Click **Submit**.

Scenario 4: User Who Can Schedule Time Slots for One DMP Group But Has No Other Rights

To restrict user permissions as they should be restricted in this scenario, you would do the following.

1. From the Role list, select **DMP Manager**, check the **All** check box in the Read column, and then uncheck every check box in the Create, Write, and Delete columns.
2. From the Role list, select **Content Manager**, and then uncheck every check box in the Create, Read, Write, and Delete columns.
3. From the Role list, select **Application Manager**, check the **All** check box in the Read column, and then uncheck every check box in the Create, Write, and Delete columns.
4. From the Role list, select **Publisher Manager**, and then check the **Selected** check box in the Create, Read, Write, and Delete columns. Next, do all of the following:
   - Click **Create**. Then, in the object selector, click a DMP group to highlight it.
   - Click **Read**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.
   - Click **Write**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.
   - Click **Delete**. Then, in the object selector, click and highlight the same DMP group that you highlighted for Create permissions.
5. Click **Submit**.

Configuring DMM-DSM Server Settings

You must configure DMM-DSM to use the correct Java servlet server and to use one, consistent username and password for administrative access to all of the DMPs that you will manage centrally.

Before You Begin

To see and use the Settings tab, you must be logged in an administrator.

Procedure

Step 1 Choose **Settings > Server Settings**.

Step 2 In the Servlet Server Address field, enter the routable IP address or resolvable DNS hostname for your DMM appliance. It will not be updated automatically if you use AAI to change the IP address of your DMM appliance.

Step 3 In the DMP User Name field, enter the one administrative username that you have configured all of your DMPs to share.

Step 4 In the DMP User Password field, enter the one administrative password that you have configured all of your DMPs to share.

Step 5 Click **Save**.

Configuring the Settings to Use ACNS or WAAS

You can configure DMM-DSM to use the content-distribution features of ACNS or WAAS.

Caution Never delete an ACNS channel that Cisco DMS uses. If you do, you will not be able to see, select, edit, or delete in your schedule any events that use the deleted channel. Failover (content substitution) occurs on your DMPs when scheduled events call upon missing assets. Before you delete any ACNS channel, be sure that you have deleted from your schedule all events that will be disrupted otherwise.

Before You Begin

To see and use the Settings tab, you must be logged in an administrator.

Procedure

Step 1 Choose **Settings > Media Delivery**, and then choose the options that meet your requirements.

Step 2 Click **Save**.

Related Topics

- UI Reference: Elements for Defining ACNS or WAAS Settings, page 3-147

UI Reference: Elements for Defining ACNS or WAAS Settings

Table 3-33 Elements for Using ACNS

Element	Description
Would you like to configure settings for ACNS or WAAS at this time?	Either Yes or No. • Yes—You will use either ACNS or WAAS as your content distribution methods. • No—You will not use either of these methods.
ACNS	
CDM Address	The routable IP address or resolvable DNS hostname of the appliance or services module (“blade”) that runs ACNS and Content Distribution Manager software.
Port	The TCP port for login access to CDM. The port number by default is 8443.
User	The username for login access to CDM.
Password	The password that corresponds to the CDM username that you entered.

Table 3-33 Elements for Using ACNS (continued)

Element	Description
WAAS	
User	The username for mounting the CIFS share.
Password	The password for mounting the CIFS share.
Share	The name of the CIFS share.
Hostname or IP address	The hostname or IP address of the CIFS share server.

Related Topics

- Configuring the Settings to Use ACNS or WAAS, page 3-147

Configuring the Settings to Deploy to External Servers

You can configure DMM-DSM to deploy to external servers, but only within these operating parameters:

- The only supported server type is FTP in this release.
- You cannot use the Schedules > Play Now feature with external deployment servers.
- All deployments to your external deployment servers require that you use the Schedules > Play in Future feature.

Before You Begin

To see and use the Settings tab, you must be logged in an administrator.

Procedure

Step 1 Choose **Settings > External Deployment Locations**, and then choose options to meet your requirements.

Step 2 Click **Save**.

UI Reference: Elements for Configuring External Deployments

Table 3-34 Elements to Configure Deployments to External Servers

Element	Icon and Description	
External Publishing Server List		
Add, select, edit, or delete external deployment (FTP) servers. Click a server to highlight it, so that you can edit or delete it. DMM-DSM automatically shows the Change External Publishing Server pane for the corresponding server, where you can edit its settings.		
Add New External Publishing Server		Shows the Add New External Publishing Server pane, where you can define the settings to use a new server.

Table 3-34 Elements to Configure Deployments to External Servers (continued)

Element	Icon and Description	
Delete External Publishing Server		Deletes the server that you highlighted.

{Add New | Change} External Publishing Server

Add or edit attributes of the external servers that you use for deployments. Each of your external publishing servers most run the necessary services to function both as an http server and as an ftp server. In addition, the root-level directory for ftp must be equal to or under the root-level directory for http. For example, you might use ***/wwwroot*** *for http and* ***/wwwroot/ftproot*** *for ftp.*	
Host	The routable IP address or resolvable DNS hostname of the external deployment (FTP) server. You must enter this value.
Port	The port number to use. You can use any port number, but the default is 21.
Server Type	FTP.
Remote Directory	Corresponding to the same server directory structure that you reference when you enter an HTTP Mapping value (see the row below this one), enter the root-level deployment directory to use on your external publishing server when your communications protocol is ftp. For example, you might enter only a forward slash (/).
HTTP Mapping	Corresponding to the same server directory structure that you reference when you enter a Remote Directory value (see the row above this one), enter the root-level deployment directory to use on your external publishing server when your communications protocol is http. For example, you might enter **/ftproot**.
HTTP Port	Enter the port number to use on the external deployment server. You can use any port number. If you do not enter a port number, the default is to use port 80.
User Name	Enter the FTP username. It is acceptable to use the name *anonymous*.
Password | Confirm Password	You must enter the FTP password, and then reenter it.

Common Scenarios for Using DMM-DSM

This section describes common scenarios for using DMM-DSM.

- Uploading Files to a DMP for Local Storage and Immediate Deployment, page 3-149

Uploading Files to a DMP for Local Storage and Immediate Deployment

You can create a presentation that shows video files from a playlist, and then transfer the presentation and its assets to the local Secure Digital (SD) flash memory card in a DMP for playback on its attached DMP display.

Note

- The total amount of available file space for local storage is:
  - 0.9 GB (900 MB) on a DMP 4300G.
  - 1.9 GB on a DMP 4305G.
  - 3.8 GB on a DMP 4400G.

  Consider these SD memory card capacities carefully when you make designs for use during stage-one failover. The combined file size for all assets in such designs cannot exceed the storage capacity of the SD card. To check the free space on the SD memory card in a DMP, log in to its local instance of DMPDM, and then click **Internal Storage**. To understand failover, see the "Understanding Content Substitution (Failover)" topic in *User Guide for Cisco Digital Media Player Device Manager 5.1.x* on Cisco.com.
- A presentation cannot play *any* file with a file size greater than 1.9 GB on a DMP, regardless of its model type. This size is constrained by the limits of streaming.

Before You Begin

To learn how to create a playlist in Digital Media Designer, so that you can show the playlist as part of a presentation, see Creating and Organizing Presentation Playlists, page 3-90.

Procedure

Step 1 To create an advanced task that will transfer the assets for your playlist anywhere in your digital signage network, choose **Digital Media Players > Advanced Tasks > File Transfer to DMP or Server**, and then do the following:

a. Click **Add New Application**, and then enter a name for the new file transfer task in the Name field; for example, you might enter the name *LocalPublishing*.

   You must enter a name. The name is unique in the sense that you have not used it previously as the name for anything that can be scheduled.

b. In the Applications list, click **Presentation** or **Playlist**.

c. In the Available Content table, click a row to highlight the presentation, and then click **Select Applications**. Doing this moves the highlighted presentation to the Selected Content table, so that its assets become available for deployment.

d. To save your work, click **Submit**.

Step 2 To deploy the file transfer task to a DMP or DMP group, select **Schedules > Play Now**, and then do the following:

a. From the DMP Groups object selector, select the DMP or DMP group that should receive the deployment.

b. From the Actions list, select the name of the advanced task that you configured and saved for this file transfer operation, and then click **Go**.

DMM-DSM deploys the assets and commands immediately to the DMPs that you selected, and the targeted DMPs restart automatically.

Note

- After they restart, your DMPs **will not** show the newly received presentation automatically on their attached DMP displays. The presentation will not play unless stage-one failover occurs or until you deploy the (Go to) URL task that DMM-DSM generated automatically when you deployed assets to the SD memory card.
- After you create and deploy any "File Transfer to DMP or Server" task to save the assets from a DMD presentation to the SD memory card inside a DMP, DMM-DSM automatically creates a (Go to) URL task.

  The name by default for the (Go to) URL task is "LOCAL - <*name_of_presentation*>" unless you checked the Emergency/Alarm check box, in which case it is "ALARM - <*name_of_presentation*>."

  If any of your DMPs should show the presentation at any time other than during stage-one failover, you must deploy the corresponding (Go to) URL task to those DMPs. See Scheduling Time Slots for Media and Events on DMPs, page 3-130.
- After you delete a presentation for which DMM-DSM automatically generated a corresponding (Go to) URL task, you must also delete that (Go to) URL task.

Integrating Third-party Applications with DMM-DSM

Cisco Digital Signage is an open and standards-based platform, and Cisco DMS ecosystem business partners and technology development partners are building new methods to extend what your DMPs can do. Contact a Cisco sales representative to learn more about potential new uses for your DMPs, such as:

- Smart signage:
  - Way-finding signs that use RFID.
  - Audience-measuring signs that use video analytics for gaze recognition.
- Conference room management.
- Line queuing.
- Representing dynamic data in real time, such as international currency rates.
- Regional call center signs that correlate real-time caller statistics with service level targets globally.
- Environmentally protected outdoor signage.

CHAPTER 4

Managing Desktop Video

Revised: March 12, 2009, OL-15762-02

Activation

Software feature modules for Cisco DMS are purchased and licensed separately. Features are hidden from all users until you purchase and install the required license to use them, and even then remain hidden from users whose privilege levels are low. To understand feature licenses and learn how to install them, see Managing Licenses for Features and Components of Cisco DMS, page 2-3. To learn how user access to features is restricted by the combination of licenses and user privilege levels, see Understanding User Roles in DMS-Admin, page 2-9. To learn which software feature modules are available for you to purchase, see http://www.cisco.com/go/dms.

This chapter includes the following sections:

- Managing Configuration and Deployment Settings, page 4-1
- Managing User Access and Permission Settings, page 4-7
- Managing Programs, Videos, Video Parts, and Lineups, page 4-9
- Managing Digital Media Encoders, page 4-45
- Workflows for Setting Up Live Events, page 4-51

Managing Configuration and Deployment Settings

Tip

For information about setting up DMM-VPM on a new DMM appliance, see the *Quick Start Guide for Cisco Digital Media System 5.1.x* on Cisco.com.

Administrators and configuration managers use options under the Setup tab to manage the configuration and deployment settings for DMM-VPM on a DMM appliance. For information about user accounts and permissions, see the "Managing User Access and Permission Settings" section on page 4-7.

- Configuring Administrative and Network Settings, page 4-2
- UI Reference: Viewing Environment Parameters, page 4-3
- Configuring the Settings to Use a Video Portal, page 4-4
- Configuring the Location Settings for Deployments, page 4-6

Configuring Administrative and Network Settings

You can configure low-level administrative and network settings for DMM-VPM.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Setup > DMM**.

Step 3 Enter the values that meet your requirements.

Step 4 Click **Save Configuration Parameters** to save and commit your entries. Alternatively, click **Cancel** to discard your entries.

Related Topics

- UI Reference: Administrative and Network Settings, page 4-2
- UI Reference: Settings to Use a Cisco Video Portal Appliance, page 4-4

UI Reference: Administrative and Network Settings

Elements and settings to configure administrative and network settings for DMM-VPM.

Navigation Path

Video Portal > Setup > DMM

Table 4-1 Elements for Configuring Global Variables

Element	Description
Application Administrator Contact Email	The e-mail address that receives help requests from users. This field is read only in DMM-VPM, and it contains the e-mail that is specified for the superuser account in DMS-Admin.
Deployment CC Email Recipient	The e-mail address that receives a copy of every deployment and notification message that DMM sends to any user. **Tip** Use an e-mail alias to send notifications to multiple recipients.
Password Retrieval Email	The e-mail address that receives requests to retrieve and restore lost passwords from Video Portal users. **Note** If you use embedded authentication, we recommend that you enter an e-mail address to provide a password management option for users who have only Video Portal User level access.
Metadata Checkout Duration	The duration (in minutes) that a user can lock metadata for editing.
Scheduled Deployment Interval (minutes)	The interval (in minutes) between automated cycles when DMM checks whether there are any scheduled deployments that it should process. This setting pertains only to scheduled deployments; immediate deployments start immediately.
Default Content Provider	The content provider name to assign, by default, to any new program upon its creation. For example, you might enter the name of your organization.

Table 4-1 Elements for Configuring Global Variables (continued)

Element	Description
E-mail Server	The DNS-resolvable hostname or routable IP address of the SMTP server through which DMM sends deployment and approval e-mail messages automatically.
Application Server Base	The lowest-level HTTP URL (including the TCP port number) that points to your DMM appliance. For example: `http://dmm.yourdomain.com:8080`. To confirm that the URL is reachable, click **Check**.
Upload URL	The HTTP URL (including the TCP port number) that points to the subdirectory where you keep uploaded binary files temporarily on your DMM appliance. For example: `http://dmm.yourdomain.com:8080/DMM/temp/video_portal/asset`. To confirm that the URL is reachable, click **Check**.
Upload Path on Local File System	The complete file system pathname (starting from the root directory) that points to the subdirectory where you keep uploaded binary files temporarily on your DMM appliance. For example: `/dm2/apache-tomcat/webapps/DMM/temp/video_portal/asset`. To confirm that the path exists, click **Check**.
Preview URL	The HTTP URL (including the TCP port number) that points to the private staging area on your DMM appliance. To confirm that the URL is reachable, click **Check**.
Preview Path on Local File System	The complete file system pathname (starting from the root directory) that points to the staging area subdirectory on your DMM appliance. For example: `/dm2/apache-tomcat/webapps/DMM/temp/video_portal`. To confirm that the path exists, click **Check**.

Related Topics

- Managing User Access and Permission Settings, page 4-7

UI Reference: Viewing Environment Parameters

The bottom of the page shows environment parameters for the DMM appliance.

Navigation Path

Video Portal > Setup > DMM

Table 4-2 Environment Parameters

Parameter	Description
DMM version	Shows the release number for the DMM-VPM version that is installed on your DMM appliance.
Java	Shows the release number for the Java version that installed on your client system.
Database	Shows the release number for the MySQL version that is installed on your DMM appliance.
Tomcat uptime	Shows the total number of days, hours, and minutes since the most recent time that you restarted your DMM appliance.

Configuring the Settings to Use a Video Portal

You can configure settings to use DMM-VPM with a Cisco Video Portal appliance.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Setup > Video Portal**.

Step 3 Enter the values that meet your requirements.

Step 4 Click **Save Portal Parameters** to save and commit your entries. Alternatively, click **Cancel** to discard your entries, click **Cancel**.

Related Topics

- UI Reference: Settings to Use a Cisco Video Portal Appliance, page 4-4

UI Reference: Settings to Use a Cisco Video Portal Appliance

Table 4-2 describes the elements and settings for configuring DMM-VPM to use a Video Portal appliance.

Navigation Path

Video Portal > Setup > Video Portal

Table 4-3 Elements for Configuring DMM-VPM to Use a Video Portal

Element	Description
Video Portal Login Prompt	The text that users see when they log in to the Video Portal; there is a 25-character limit.
Video Portal FQDN	Exactly the same DNS-resolvable hostname for your Video Portal appliance that you defined on your: • DNS server. • Video Portal appliance, in its version of AAI. Do not use underscores or any other special characters in hostnames. DNS standards do not support these characters. Use only letters, numerals, and hyphens.
Video Portal Instance	**Caution** You must not use Cisco as the instance name. We reserve and use the Cisco name for other purposes. All of your deployments will fail if you use Cisco as the instance name. Exactly the same instance name that you defined for your Video Portal appliance in its version of AAI.
Video Portal Password	The password that is currently in effect for the administrative account in AAI on your Video Portal appliance. Any time that you change that password on your Video Portal appliance, you must also enter exactly the same updated password value here.

Table 4-3 Elements for Configuring DMM-VPM to Use a Video Portal (continued)

Element	Description
Video Portal Web Server Base	The top-level HTTP URL of the server on which your audience can find your Video Portal. To confirm that the URL is reachable, click **Check**.
The URL to the live video portal	The HTTP URL that points directly to your public Video Portal. If you click **Check**, you see one of these messages: • "URL is blank."—You have not entered any URL. • "Server was not found."—You entered an invalid URL. • "URL exists."—The URL that you entered points correctly to a Video Portal.
Default Audio Only Image	The SWF or non-progressive JPEG image to show as the thumbnail for every audio file. You must specify a file that is 100 pixels wide and 75 pixels high (or uses any proportional multiple of those dimensions, such as 400 x 300). The file must be in the same directory that you specified as the *Upload Path on Local File System* when you completed the "Configuring Administrative and Network Settings" section on page 4-2. **Note** This option applies to you *only if*—when you or an administrator used AAI to set up your Video Portal appliance—you chose FLV as the only supported file type and Flash/Sorenson as the only supported format for encoding. For more information, see Task 10 in the "Setting Up and Configuring a Video Portal Appliance" chapter in *Appliance Administration Guide for Cisco Digital Media System 5.1.x* on Cisco.com.
Default Preview Image	The SWF or non-progressive JPEG image to show as a placeholder thumbnail image when no other preview image is available for a video file. You must specify a file that is 100 pixels wide and 75 pixels high or use any proportional multiple of those dimensions.
Supported Media Formats	The formats to support. Choose any combination of Flash Video, Windows Media, and MPEG4/H.264 (QuickTime).
Media Preferences by Browser	The order in which the Video Portal and embedded video players attempt to play a video.
Video Portal URL with Plugin Detector	The HTTP URL that activates the plugin detector on your Video Portal so that it automatically chooses the format to use when it shows media to Video Portal audience members.
Video Portal URLs by Individual Supported Media Formats	The HTTP URL that bypasses the plugin detector on your Video Portal so that it show only one media type to your Video Portal audience members whether or not they have the required plugin to see that media type. Ensure that users have installed the correct plugin on their systems; otherwise, they may experience technical difficulty when accessing a video by using this URL.

Configuring the Location Settings for Deployments

You can configure the location settings for video deployments. You must deploy files to at least one remote location because you cannot present them to audiences directly from your DMM appliance.

Before You Begin

- You must enter a deployment location for each file type that you use. You can enter a unique location for each of the different file types, or you can use one location that applies equally to every file type. Any invalid entries will cause deployments to fail.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Setup > Deployment Locations**.

Step 3 Enter the values that meet your requirements. Valid file types are:

File Type	Description
Flash Video	Flash (FLV) files to deploy as the Flash Video version of a video offering or to show as a video preview.
Windows Media Video	Windows Media (WMV) files to deploy as the Windows Media version of a video offering.
MPEG4/H.264	MPEG-4 (MP4, M4V, MP4V, M4A, or MOV) files to deploy as the Quicktime version of a video offering.
Support	Any non-video binary files to deploy as supporting images, such as SWF files or non-progressive JPEG files. Any related items that content managers add to a video part for download are deployed to this support location. Also, related files that will be downloaded are deployed and stored in this support location.

Step 4 Click **Save Deployment Locations** to save and commit your entries. Alternatively, click **Cancel** to discard your entries.

Step 5 (**Optional**) To run a deployment now, complete the following steps:

a. Choose **Video Portal > Deployments** and click **Schedule New Deployment**.

b. Choose the **Video Part 1** check box in the Video Part Selection area.

c. To deploy the pre-loaded content and metadata immediately, check the **Schedule Immediately** check box in the Deployment Time area.

d. Click **Create Deployment**.

e. To ensure that the content and metadata deployed appropriately, use another computer on your network to access the Video Portal that you installed.

Related Topics

- UI Reference: Deployment Location Settings, page 4-7

UI Reference: Deployment Location Settings

Table 4-4 describes the settings and elements for configuring deployment locations.

Navigation Path

Video Portal > Setup > Deployment Locations

Table 4-4 Elements for Configuring Deployment Locations

Element	Description
Connection type	The protocol or method for file transfer (the options are FTP, SFTP, and SCP). No matter which protocol you use, the connection timeout is 10 seconds on this page and 30 seconds during an actual deployment.
Host address	The DNS-resolvable hostname or routable IP address of the remote server where you will deploy files of the relevant filetype.
Login name	A user account name that has the required privileges to access the remote server.
Login password	The assigned password for the login name that you specified. When you choose the SFTP option for deployments to your Video Portal appliance, the password that you enter must be exactly the same as your Video Portal admin password.
Root file directory	The absolute directory path to files that you will deploy. If you click **Check**, you see one of the following messages: • "Field is blank"—You have not entered any path. • "File Path Does Not Exist"—You entered an invalid path. • "File Path exists"—The path that you entered points correctly to a valid file.
Root URL Path	The absolute URL, where the Video Portal will host and reference your files. If you click **Check**, you see one of the following messages: • "URL is blank"—You have not entered any URL. • "Server was not found"—You entered an invalid URL. • "URL exists"—The URL that you entered points correctly to a valid file.

Managing User Access and Permission Settings

Administrators use the features under the Users tab in DMM-VPM to assign differing levels of access and permissions to users of DMM-VPM, Video Portal Reports, and Video Portal, depending on their roles and responsibilities.

- Working with User Accounts, page 4-7
- Viewing Your Profile, page 4-8

Working with User Accounts

User accounts are:

- Centrally managed in DMS-Admin.
- Assigned roles in DMM-VPM.

Note If you are an Administrator in DMM-VPM, you can assign differing levels of access and permissions for other DMM-VPM users; however, not even an administrator can change his or her own access privileges. Only another administrator can change your access privileges if you are an administrator.

Before You Begin

- Use DMS-Admin to create or import user accounts.
- Use DMS-Admin to configure user authentication settings.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Users > User Accounts**.

Step 3 Click **Edit** next to the user whose permissions should be assigned.

Related Topics

- Managing User Accounts and Authentication Settings, page 2-5
- Viewing Your Profile, page 4-8
- UI Reference: User Account Settings, page 4-8

Viewing Your Profile

Note
- Profile information is not editable in DMM-VPM. You can edit it DMS-Admin if you have Administrator or Configuration Manager permissions.
- Depending on your access level, you might not see the Module Access Type area.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Users > My Profile**.

The My Profile page displays information that you see when you work with user accounts.

UI Reference: User Account Settings

Table 4-5 describes the elements for DMM-VPM and Video Portal users.

Navigation Path

Video Portal > Users > User Accounts

Table 4-5 Elements for User Accounts

Element	Description
First Name	The given name of the user for this account. DMM-VPM greets the user by this name when the user logs in. DMM-VPM also includes this name when it sends approval requests and e-mail notifications.
Last Name	The surname of the user. DMM-VPM includes this name when it sends approval requests and e-mail notifications.
Company	The company for the user.
Department	The department association for the user.
Email Address	The e-mail address for the user. DMM-VPM uses this address to send approval requests and notifications.
Phone Number	The phone number for the user.
Login User Name	The assigned username of the user to log in to DMM-VPM, Video Portal, or Video Portal Reports.
Module Access Type	Lists the categories of access that you can assign to a user account. The access types are the following: • **Administrator**—Manages users, passwords, and permissions. • **Category Manager**—Creates, edits, or disables categories. • **Approver**—Approves content items. • **Video Portal User**—Views content on the Video Portal. • **Author**—Creates, edits, or disables programs, videos, video parts, and lineups. • **Designer**—Edits aspects of the Video Portal graphical user interface for audiences, including its templates, logos, background images, and links. • **Configuration Manager**—Accesses the DMM application configuration. • **Video Portal Reports User**—Uses Video Portal Reports in DMM-VPM.

Managing Programs, Videos, Video Parts, and Lineups

Administrators and authors user the options under the Video Portal tab to create, modify or disable programs, videos, video parts and lineups.

This section contains these topics:

- Working with Programs, Videos and Video Parts, page 4-10
- Approving or Denying the Request to Approve a Video Part or Playlist, page 4-18
- Understanding the Live Event Module, page 4-18
- Understanding and Working with Synchronized Slides, page 4-19
- Understanding and Working with Audience Questions, page 4-21
- Creating and Working with Playlists, page 4-24

- Creating and Working with Content Categories, page 4-27
- Creating and Working with Tickers, page 4-33
- Creating and Working with Interstitials, page 4-29
- Creating and Working with Interstitial Sequences, page 4-31
- Customizing Your Video Portal, page 4-34
- Configuring the Settings to Manage Deployments, page 4-38

Note To understand the features of the Video Portal Reports option, which is also available under the Video Portal tab, see Appendix A, "Using Video Portal Reports." You must have Video Portal Reports User permissions to see this option.

Working with Programs, Videos and Video Parts

You can create programs and populate them with videos and video parts and then deliver the programs to your audiences live or on demand.

When you provide closed captioning, Video Portal viewers see a closed captioning icon that they can click to display text. For more information, see *User Guide for Cisco Video Portal 5.1.x*.

Procedure

Step 1 Choose **Video Portal** from the global navigation, and then choose **Video Portal > Programs**.

On the Programs page, you can toggle between two tables that are mostly very similar and that both show a list of DMM-VPM programs. You can move programs from one table to the other.

Step 2 Do one of the following:

- Click **Active** to see in the Active table a list of all the programs that are available to show to your audience. These programs are active in the sense that you have not disabled them. If you have not created any programs or if you archived every program, the table is empty.
- Click **Archive** to see in the Archive table a list of all the programs that you have disabled temporarily. These programs are disabled in the sense that they are not available for your audience to find or see and you cannot add them to playlists. You might choose eventually to restore or delete these programs.

Step 3 Enter the values that meet your requirements.

Step 4 Click **Save**.

Related Topics

- Understanding Requirements for Content Objects, page 4-11
- Understanding Approvals for Video Parts, page 4-11
- Understanding Western European Font Support, page 4-11
- Understanding Closed Captioning, page 4-11
- UI Reference: Content Object Settings, page 4-11

Understanding Requirements for Content Objects

- Programs, videos, and video parts are all *content objects*. You can create, edit, disable, and delete content objects at any time, according to your requirements.
- Although a program can contain multiple videos, you cannot add any video to more than one program.
- Each program that you create must contain at least one video before you can show it to any audience.
- Each video that you create must contain at least one video part before you can show it to any audience.

Understanding Approvals for Video Parts

You can configure DMM-VPM to track approvals for video parts. Content authors can request approval for video parts; then, a designated approver can approve or deny the requests. A designated approver is someone whose DMM-VPM user type is Approver. Not even a designated approver can approve his or her own requests. Approval and denial have *no effect* on whether a video part can be deployed. Therefore, the approval process workflow does not help you to enforce any security policy; instead, it helps your organization to formalize communication. For information about user accounts and permissions, see the "Managing User Access and Permission Settings" section on page 4-7

Understanding Western European Font Support

The Video Portal can display Western European language fonts that are included in the ISO 8859-1 standard when content authors use supported language versions of their browsers, operating systems, and keyboards to enter information about videos in DMM-VPM. The information that content authors provide displays to Video Portal viewers in the language in which it was entered regardless of the language settings of their browsers. Video Portal navigational elements display in English, and Video Portal users cannot search for videos that include non-English characters in titles and descriptions.

Understanding Closed Captioning

Closed captioning enables you to display closed captioning text that is embedded in a Windows Media stream to Video Portal viewers.

- Closed captioning for VoDs—This option requires that you manually or use software tools to transcribe the audio track; synchronize the transcription with the video; and create a special SAMI file before you publish the VoD and deploy it to the Video Portal.
- Closed captioning for DME live events—This option requires that you edit the encoder profile on the DME to enable encoding of closed caption text before the event; see the documentation that came with your encoder for more information. Then, during the event, you need a stenographer-type system to provide the text and a closed caption multiplexer to insert the text into the analog video signal.

UI Reference: Content Object Settings

Table 4-6 describes the elements and settings that you use to configure the following content objects: programs, videos, and video parts.

Navigation Path

Video Portal > Programs

Table 4-6 Elements for Configuring Content Objects

Element	Description
Add New {Program | Video | Video Part}	Shows one of these pages, respectively: • Add New Program • Add New Video • Add New Video Part
Archive Selected	Moves the content objects that you chose from the Active table to the Archive table. When you archive a program, the videos and video parts within it remain active. You can deploy them in a playlist, and your audiences can use a keyword search to find them on your Video Portal.
Delete Selected	**Caution** When you delete a program, the actual effect of the deletion differs if the program is part of a playlist or is not. If you delete a program that is part of an active and deployed playlist, your audiences can still find, see, and use the program, its videos, and its video parts on your Video Portal. However, if you *have not* included the program in any playlist, DMM-VPM immediately deletes the program, its videos, and its video parts. They are not available for any purpose in DMM-VPM or on your Video Portal, and you cannot undo the deletion. However, VOD files are available through direct portal links until you delete the files from their content storage locations. Shows the Delete Confirmation page. See the instructions on that page that tell you how to delete the disabled or archived content objects that you chose.
Activate Selected	Moves the content objects that you chose from the Archive table to the Active table.
Select a Program Provider to Filter On	Lists the program providers. Choose a provider name to filter the list of programs and display only the programs the are associated with that provider.
columns	
Untitled check box	One of the following: • Marks a content object that you will disable, when chosen, in the Active table. • Marks a content object that you disabled and that you will restore or delete, when chosen, in the Archive table.
Name	Shows the name or title for the content object that the corresponding row describes, shows the Modify ( ) button, and sometimes shows the Preview ( ) button. Values in the name column are the basis by default for how DMM-VPM sorts the rows, but you can click the heading in any other column to re-sort the rows by the values in that column. If you click the Modify button, DMM-VPM loads a page where you can edit content object metadata, such as the title and description for a program.
Provider	*Programs only.* Shows the provider who produced the program that one row describes, as specified in the program metadata.
Last Modified	Shows the date on which the content object was last edited.

Table 4-6 Elements for Configuring Content Objects (continued)

Element	Description
Active Videos	*Programs only.* Shows the Active Videos ( ) button and the Add New Video ( ) button. If you click the Active Videos button, DMM-VPM loads a page where you can add videos to the program that the corresponding row describes or mark videos to remove from that program. If you click Add New Video, DMM-VPM loads the page where you can enter metadata for a new video.
Active Categories	*Programs only.* Shows the Active Categories page for the program that the corresponding row describes. From the Active Categories page, you can choose and add categories to associate with the program, or you can choose and delete category associations from the program.
Active Video Parts	*Videos only.* Shows the Active Video Parts ( ) button and the Add New Video Part ( ) button. If you click the Active Video Parts button, DMM-VPM loads a page where you can add video parts to the video that the corresponding row describes or mark video parts to remove from the video.
Release Date	*Video Parts only.* Shows the release date.
Length	*Video Parts only.* Shows the playback duration of the video part in days, hours, minutes and seconds.
Active Related Items	*Video Parts only.* Shows the Active Related Items page for the video part that the corresponding row describes. If you click the Active Related Items button, DMM-VPM loads a page where you can add items, such as links to web sites or files, to the video part that the corresponding row describes or mark related items to remove from the video part.
Approval Status	*Video Parts only.* To request an approval for the video part that the corresponding row describes, click **Request Approval**, choose an approver from the list in the popup window, and then click **Request Approval** and **Close**.

Add New Program | Modify Program

*The metadata attributes that define the program. Enter or choose the metadata after you click Add New Program or after you click the Edit button for a program. To save your work, click **Save**.*	
Program Name	The title for the program that your audiences see on the Video Portal when they click the Program Guide tab. Only the first 25 characters that you enter will be visible on the Video Portal.
Program Description	The description that your audiences see on the Program Guide tab, next to the corresponding program name. In addition, this description is visible in the Video Portal “More Info” text for any video that this program contains.
Program Status	When you choose Active, the program is visible to your audiences after you populate, save, and deploy it. When you choose Archive, the program is not visible to your audiences.
Program Provider	The name of your company, organization, or department. You use this information to manage and administer content; your audiences do not see it. The default provider name is whichever one you chose under the Setup tab.
Program Categories	Your audiences can use the program guide or search feature on your Video Portal to find this program in the categories that you choose. You can add or remove category associations at any time.

Table 4-6 Elements for Configuring Content Objects (continued)

Element	Description
Add New Video | Modify Video	
*The metadata attributes that define the video. Enter or choose the metadata after you click Add New Video or after you click the Edit button for a video. To save your work, click **Save**.*	
Video Title	The title for this video, which your audiences see on your Video Portal when they use its playlist, program guide, or search features. Only the first 33 characters are used.
Video Status	When you choose Active, you can add the video to a program that you create. When you choose Inactive, you cannot add the video to any program unless you reactivate it.
Video Description	A description for your reference. Your audiences do not see it.
Add New Video Part | Modify Video Part	
Physical and logical attributes of the file that you use as a video part. Enter or choose the attributes after you click Add New Video Part or after you click the Edit button for a video part.	
Show Direct Portal Link	Shows the Video Portal URL for this video part. When you archive or delete a video part, the direct portal link is removed from the Video Portal listing but continues to access the VOD file from the original deployment location. We recommend that you remove the file from its content storage location to make it inaccessible.
Video Part Description	The description that your audiences see on your Video Portal in its preview pane and in the "More Info" text under its Overview tab. Do not enter more than 72 lines of text or more than 48 characters per line. This element is visible only when you are adding or editing a video part.

Table 4-6 Elements for Configuring Content Objects (continued)

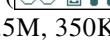
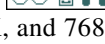
Element	Description
Type of Video	If VoD, the source is a file. If DME Live Event or Non-DME Live Event, the source is an encoder. The Non-DME Live Event option helps you to publish a live stream URL to the Video Portal and control event visibility, but you cannot control the encoder. The VoD option is for non-DME live events, but you cannot use this option to control event visibility on Cisco Video Portal. {**Flash** | **Windows Media** | **QuickTime**} **Video** (video or audio)—Shows a filename that you enter or that DMM-VPM enters automatically after you click the link to upload a new VoD file. **Restrictions**: The maximum supported file size for uploads is 2GB; you cannot upload any video part that is larger than 2GB. To work around this limitation, post the file to a public webserver, and enter the corresponding HTTP URL instead of entering a filename.If you enter the filename manually for a VoD, special requirements apply to each supported file type: • You must use HTTP to point to any remote Flash file that you will upload. Flash files must use {FLV | FLA} for their filename extension. You cannot choose Flash as the media format for a live event because Cisco Video Portal does not support Flash video streaming. • You must use {MMS | RTSP} to point to any remote Windows Media file that you will upload. Windows Media files must use {WMV | WMA | ASF} for their filename extension. Closed captioning requires Windows Media. • You must use {HTTP | RTSP} to point to any remote QuickTime (or H.264) file that you will upload. These files must use {MOV | MP4 | M4V | MP4V | M4A} for their filename extension. We use the terms MPEG-4, QuickTime, and H.264 interchangeably in DMM-VPM. DMM-VPM saves uploaded VoD files to the deployment location that you specified under the Setup tab. The file formats that you see are exactly the ones that you chose to support when you set up your Video Portal. You must enter or upload one file apiece for each format that your Video Portal supports. We recommend that you encode all files to be 400 pixels wide and 300 pixels high. If you chose the DME Live Event option as the video type, you see these additional options: • **Encoder**—Lists all of the encoders that you have configured DMM-VPM to use. Choose the encoder that is the source of the live stream. • **Use Default Streaming Settings**—Use the DMM-VPM settings exactly as they are. • **Advanced Settings**—Configure this stream to use settings that differ from the default. Choose the encoding or transcoding format, publishing method (push *or* pull), video input method (Composite/RCA or S-Video), audio input method [Unbalanced (RCA) or XLR Balanced], video input standard[1], whether to save a copy of the live stream as a file for later viewing as a VoD—and possibly also the DME 2000 input channel to use ( A *or*  B), if your encoder is a DME 2000. Encoding format options are 1.5M, 350K, 50K, and 768K. Transcoding format options are 1.5M, 2M, 350K, 50K, and 768K. When you point to a live stream, a filename is not necessary. In most cases, you point instead to a directory on the streaming server. If you are unsure about the configuration that your organization uses, ask your systems administrator for details. Streaming options are available for Windows Media, but not for Flash video. If you chose the Non-DME Live Event option as the video type, you see the following additional options: • **Event Status**—Shows Pending, Live, or Stopped, corresponding to whether Video Portal access to the event is turned on or off. • **{Start | Stop | Re-Start} Live Event**—Enables you to turn on and turn off Video Portal access to the event.

Table 4-6 Elements for Configuring Content Objects (continued)

Element	Description
Play Order in Video	Shows when the video will play this video part, relative to the playback sequence of all the video parts in the video.
{Release | End of Life} Date/Time	Click to pick the date, choose options for the hour and minute, and then choose AM or PM. The release date is by default today. • DME Live Event and Non-DME Live Event: If you are setting up a live event, you must explicitly enter the End of Life Date/Time value. DMM-VPM does not obtain it automatically from the Release Date/Time value. If you do not enter an End of Life Date/Time value, the event will not be visible in the Encoder table; you will not be able to start the event; and the event will not be visible on the Video Portal. • VoD: The EoL/Date field is a placeholder to denote in DMM-VPM when content should be archived. **Tip** Use the Archive function for the video part page in the DMM-VPM to specify that you want to remove video from the Video Portal. Then, create a new deployment to remove it.
Duration	Describes the playback duration of the video part in hours, minutes and seconds. Use the format `HH:MM:SS`. If you enter only seconds, DMM-VPM corrects your entry. • DME Live Event and Non-DME Live Event: You can use the scheduled length of a live event as the duration of its corresponding stream. The duration that you enter does not stop your Video Portal from delivering the whole stream if the actual event runs past its scheduled time to stop; the stream continues to play in your Video Portal until you stop it or it is no longer available. • VoD: You must manually enter the duration for Windows Media and QuickTime video files, but this information is provided automatically for Flash video files.
Access restrictions	Enables content-level viewing security, so the Video Portal displays only the content that users see. **Note** Authentication must be enabled in DMS-Admin to enforce access restrictions. • None (Viewable to all user groups)—Specifies that all Video Portal users can see information about the video part and watch it. • Viewable only to select groups— Specifies that only user groups with permissions can see information about the video part and watch it. Click **Choose Group** to display the groups that the administrator created or to create or edit a group.
Preview Content File URL	The location of a SWF file or *nonprogressive* JPEG file (100 pixels wide and 75 pixels high, or any proportionate multiple of those dimensions) that your Video Portal should show as the preview image for this video part. To choose and upload a local file, click **Upload new preview video file**. If you use a SWF file, we recommended that you program it to pause after 10 seconds and not loop. Cisco Video Portal cannot display progressive JPEG images.
{Pre-Event | Post-Event} JPEG URL	Upload the JPEG image to show {before | after} the live event.
Enable Questions from the Audience	Click {**On** | **Off**} to enable or disable support for questions.
Slide Show	Choose and upload the SWF file or ZIP archive of slides to show next to the video stream. The ability to upload a slide presentation to a VoD is used for VoDs that were created from a live events. The ZIP archive that you upload must contain JPEG files that you exported from PowerPoint (or similar software), whose sequence of filenames is numbered correctly to preserve their natural order.

Table 4-6 Elements for Configuring Content Objects (continued)

Element	Description
Preview Description	A text description that your Video Portal shows to your audiences but truncates after 160 characters. If you do not enter a preview description, your Video Portal shows the first 160 characters from the video part description instead.
Keywords	Descriptive words to make this video part searchable on Cisco Video Portal. There is no reason to enter commas, semicolons, or other word separators; Cisco Video Portal ignores them if you do.
Embedded Video	Provides the necessary HTML code to embed and display the live or on-demand video inside a custom website without the Video Portal interface. Embedded video requires an active Video Portal because the code checks the encoded video type and opens the correct supporting decoder software before displaying the video and basic playback controls to viewers. However, because viewers to do not log in to the Video Portal, usage statistics for this video are not available in Video Portal Reports. **Note** Because the code provides direct access to the video, do not assign access restrictions in Cisco Video Portal. We recommend that you manage access by implementing security measures on the website or through the application that publishes the code. **Tip** Video Portal users can also share videos by sending direct Video Portal URLs to other users, who can watch the videos if they have permissions to access. For information about URL sharing, see *User Guide for Cisco Video Portal 5.1.x* on Cisco.com.
{Add New Related Item | Modify Related Item}	
*Links to web sites, video parts in other programs on your Video Portal, or files for your audience to download and use. Your audience sees the related items for a video part on your Video Portal if they click **More Info** during playback. Click **Add New Related Item**, choose the type of link, and enter the metadata. Alternatively, click the **Edit** button for a related item, and modify the metadata. To save your work, click **Save**.*	
Download	Provide files for users to download. For proper download, video files must be inside a ZIP archive.
Web Link in New Default Browser	Provide a URL that opens in a standard browser.
Web Link in New Custom Browser	Provide a URL that opens in a browser you customize in DMM-VPM.
Related Video	Provide a link to another video part.

1. One of these:
   - NTSC_M (US)
   - NTSC_M_J (Japan)
   - PAL_B
   - PAL_D
   - PAL_H
   - PAL_I
   - SECAM_B
   - SECAM_D
   - SECAM_G
   - SECAM_H
   - SECAM_K
   - SECAM_K1
   - SECAM_L
   - SECAM_L1

Related Topics

- Managing User Accounts and Authentication Settings, page 2-5
- Understanding Approvals for Video Parts, page 4-11

- Understanding Closed Captioning, page 4-11
- Understanding the Live Event Module, page 4-18
- Generating and Importing the Slides to Be Synchronized, page 4-19
- Creating and Working with Content Categories, page 4-27
- Managing Push Configurations, page 4-49
- Modifying the Scheduled Times for DME Live Events, page 4-54

Approving or Denying the Request to Approve a Video Part or Playlist

After anyone submits a video part or playlist approval request, DMM-VPM sends e-mail to the designated approver. The e-mail message contains a link to preview and approve or deny the video part.

If you receive the message, do the following:

Procedure

Step 1 Click the e-mail link to preview the video part or playlist and, when your browser loads the Approval Request page, click **Preview Now**.

Step 2 Watch the video part, enter comments if you have any, and use the controls at the bottom of the window to approve or deny the request.

DMM-VPM is updated immediately and notifies the requestor through e-mail that you approved or denied the request.

Step 3 To return to DMM-VPM, click **Close and Return**.

Related Topics

- Understanding Approvals for Video Parts, page 4-11

Understanding the Live Event Module

The Live Event Module is a separately licensed add-on to DMM-VPM that helps you to do the following:

- Synchronize presentation slides with live audio and video streams that you show on your Video Portal.
- Receive and work with text-based questions that remote audience members submit to you while they are viewing live events on your Video Portal.

Note Every time that you will host a live event, you must start the DME remotely from the DMM-VPM encoder dashboard. If you use any physical control on the DME chassis to start the encoder, your live events will not be available to your Video Portal audience members.

Related Topics

- Understanding and Working with Synchronized Slides, page 4-19
- Understanding and Working with Audience Questions, page 4-21

Understanding and Working with Synchronized Slides

If you have purchased a license to use the Live Event Module, the moderators at your live events can synchronize slides with their live event streams. The slide synchronization option requires that you use the Windows Media format and that you use either a DME 1000 or DME 2000 as the encoder. Windows Media and the DMEs use types of APIs that are not currently available with other encoding formats to support tight synchronization between slides and streams of audio and video.

Directory Location for Slides

For slides that are JPG files, unless a **/slides** subdirectory exists within the root directory that you specified in the Support area on the Deployment Locations page, deployments will fail for your synchronized slides. DMM-VPM creates the **/slides** subdirectory for you automatically if you use forward slashes (/) in the Root File Directory field but does not create the directory if you use back slashes (\). If you used back slashes, you must log in to the server that you specified and create the required subdirectory manually.

For slides that are contained in a SWF file, slides are copied over to the Video Portal appliance in the */appliance_name*/dms/video_portal/assets/ directory to avoid cross-domain access issues that could prevent the SWF slides from working. Also, this setup prevents the SWF file from being overwritten during an upgrade..

VoDs Files Created From Live Events

If you chose to create a VoD from a live event, you can publish the resultant VoD file after the event is finished. You cannot edit the VoD file with Cisco DMS 5.1.*x* and maintain the slide synchronization commands that were created during the live event because the synchronization data is stored inline with the video data. Therefore, the data is lost if you use third-party tools that create and edit videos, such as Windows Movie Maker, to render and encode the file again.

Tip To edit video duration, you can use a third-party tool that enables you to trim the length of a video clip and transfer the synchronization data to the header, such as Windows Media File Editor.

Related Topics

- Configuring the Location Settings for Deployments, page 4-6
- Generating and Importing the Slides to Be Synchronized, page 4-19
- Generating and Importing the Slides to Be Synchronized, page 4-19
- Operating a Slide Show, page 4-21
- What Video Portal Audiences See When You Use Synchronized Slides, page 4-21

Generating and Importing the Slides to Be Synchronized

In most cases, the synchronized slides that you show during live events will be derived from Microsoft PowerPoint presentations that your organization prepared for this purpose. Alternatively, your organization might use similar software from another vendor to develop its presentation slides.

- Best Practices for Creating and Importing Slides, page 4-20
- Creating and Importing a ZIP File for Synchronization, page 4-20
- Creating and Importing a SWF File for Synchronization, page 4-20

Best Practices for Creating and Importing Slides

Creating Slides	There are two ways to create your slides for use with the Live Event Module. • You can export sequentially numbered JPEG files from a presentation and save those exported images inside a ZIP archive, which you import. One advantage to this method is that it does not require your organization to buy any additional software. However, the exported images might not provide a high-quality viewing experience for your audience members who opt to view the slides in their own resizeable window on the Video Portal. • You can use a third-party add-on that converts a presentation into a SWF file, which you can then import. The advantages to using this method are that it generates only a single file to be distributed and offers a potentially higher-quality viewing experience when viewers choose the option to open the slides in a new window and re-size this window.
Importing Slides	If you will show synchronized slides during a live event, we recommend that you create the live event and upload the slides for it no later than 30 minutes before the live event should start. This best practice allows sufficient time in most cases for the slides to reach and be cached on all of the web servers and content delivery devices that your organization has configured in support of live streaming.

Related Topics

- Creating and Importing a ZIP File for Synchronization, page 4-20
- Creating and Importing a SWF File for Synchronization, page 4-20

Creating and Importing a ZIP File for Synchronization

The following procedures assume that PowerPoint is your preferred software.

Procedure

Step 1 After you finish preparing your PowerPoint slide deck, choose **File > Save As**.

Step 2 From the Save as type list, choose **JPEG file Interchange Format (*.jpg)**.

Step 3 Using a method that your operating system provides for this purpose, create and name a new folder where the exported JPEG versions of your slides should be saved. The name that you enter should not contain any spaces.

Step 4 To start exporting your slides, click **OK**.

Step 5 When a prompt asks you, “Do you want to export every slide in the presentation or only the current slide?”, click **Every Slide**.

PowerPoint then extracts each slide and saves it as a separate JPEG file in the folder that you created and named. Each JPEG file receives an ascending number as its filename.

Step 6 After PowerPoint is finished saving all of the JPEG versions of your slides, compress the folder that contains them so that it is the basis for a new ZIP archive.

Creating and Importing a SWF File for Synchronization

After you finish preparing your PowerPoint slide deck, use a third-party application or a separately purchased PowerPoint plug-in to convert your slides into a single SWF file. Ensure that you remove all intra-slide and slide-to-slide transitions before you convert to a SWF file.

Operating a Slide Show

For most live events, a designated synchronization operator will use one of the two provided consoles to synchronize slides with the actions of the live presenter. When the presenter advances by one slide in a presentation, for example, the synchronization operator uses the synchronization console to do the same. There are two supported ways to synchronize slides.

- **Simple**—The first synchronization method uses a simple, full-screen interface that shows each slide. To change or synchronize a slide, the synchronization operator or presenter presses the right or left arrow keys on a keyboard to move forward or backward through a presentation one slide at a time. This method is ideal for small events or in-studio events where the presenter (not a separate synchronization operator) manages slides.
- **Advanced**—The second method uses a more advanced view that includes slide selection controls along its right side. By using this method, a synchronization operator or presenter can choose to selectively skip slides and move quickly forward or backward to any slide in the slide deck.

Each time that a slide is synchronized, the Live Event Module inserts a command into the stream:

- If you converted presentation slides into a sequence of numbered JPEG images that you uploaded inside a ZIP archive, the command in the stream instructs your Video Portal to fetch the relevant JPEG file and display it to audience members.
- If you converted presentation slides into a SWF file, the command in the stream instructs your Video Portal to find the relevant section in the SWF file and display it to audience members.

This process ensures that slides are tightly synchronized to streams.

Each time a slide synchronization takes place, the action is noted in the encoder console event window.

What Video Portal Audiences See When You Use Synchronized Slides

When you associate synchronized slides with a live event or a VoD, changes occur automatically in the user interface that Video Portal audience members see. By default, video is displayed on the left and synchronized slides are on the right. Audience members can choose to view slides inside a resizeable popup window, which is useful to them if information on a slide is not easily readable at the default size.

The popup view also provides audience members with an option to review past slides that were already presented. To choose a past slide to view at full size, audience members click its thumbnail preview in a scrolling list on the right.

Understanding and Working with Audience Questions

If you have purchased a license to use the Live Event Module, your Video Portal audience members can submit text-based questions during the live events in which you have enabled this feature.

During a live event, audience members who click the Ask Question button on the Video Portal will open a new window where they can enter and submit questions for the presenters. All of the submitted questions appear first in the Question Manager console in DMM-VPM, which your live event moderators can monitor. At chosen times during a live event, your moderators can submit prescreened questions to the presenters either in the Presenter console or verbally. The presenters are then able to answer questions from remote audience members during the live event. Submitted questions are not visible to audience members, and audience member names are not associated with their questions or displayed to live event moderators and presenters.

Because the live events that you show on your Video Portal can have thousands of audience members and it might be difficult for just one moderator to prescreen all of the submitted questions, multiple moderators can open and manage multiple instances of the Question Manager console simultaneously. After the event is finished, you can export all of the submitted questions and, if necessary, publish them on a separate server.

Moderators and presenters at live events use the Question Manager console in DMM-VPM to work with questions from Video Portal audience members.

This section contains the following topics:

- Moderating Questions, page 4-22
- Answering Questions, page 4-24

Moderating Questions

If you are a moderator for a live event, you can prescreen questions for the presenters.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Use your preferred method to open the moderation features:

Method 1	Method 2
a. Choose **Encoders > Encoder Dashboard**. b. In the list of encoders, find and click the icon ( ) for the encoder that your live event will use. DMM-VPM shows ad-hoc streaming controls for the encoder that you clicked. c. Click **View Audience Questions**.	a. Choose **Video Portal > Programs**. b. Click the **Active** tab. c. On the Active Programs page, click the **Active Videos** ( ) button that corresponds to the relevant program. d. On the Active Videos page, click the **Active Video Parts** ( ) button that corresponds to the relevant video. e. On the Active Video Parts page, click the **Modify** ( ) button that corresponds to the relevant live event stream.. f. Scroll to the bottom of the displayed page, then click **Review Audience Questions**.

Step 3 Enter the values that meet your requirements.

Related Topics

- Working with Programs, Videos and Video Parts, page 4-10
- UI Reference: Settings for Moderating Live Events, page 4-23

UI Reference: Settings for Moderating Live Events

Table 4-7 describes the settings for moderating live events.

Navigation Path

- Video Portal > Encoders > Encoder Dashboard > View Audience Questions
- Video Portal > Programs > Active > Active Videos > Active Video Parts > Modify > Review Audience Questions

Table 4-7 Elements for Moderating Live Events

Element	Description
Questions tab	
Shows a scrolling list of the questions that audience members have submitted. The list is updated in real time whenever new questions arrive.	
{Show | Hide} Filters	Toggle that shows or hides options for configuring and applying text string filters to the list of active questions. There are two filter types: • **Show Questions**—Click **On** to enable, or click **Off** to disable, filtering against a text string that you enter. While enabled, the filter constrains the list so that it *includes* only the questions that contain your text string. • **Auto-remove Questions**—Click **On** to enable, or click **Off** to disable, filtering against a text string that you enter. While enabled, the filter constrains the list so that it *excludes* all questions that contain your text string. **Note** If you enable both of the filters and enter the identical text string for both of them to use, the filters become mutually exclusive. In this case, all questions are moved under the Removed Questions tab. To restore them to the list of active questions, click **Removed Questions**, and then click **Reactivate All**.
Export Questions	Creates a delimited text file that contains all the questions and other data, including timestamps, that are visible in the list of active questions. If you have configured your browser correctly to use helper applications, the file will open automatically in your preferred software for editing spreadsheets.
Columns	Information about the questions is sorted into the following columns: • **Question**—The literal text of the question, exactly as it was submitted. • **Time Asked**—The date, hour, minute, and second when the question was submitted. • **Actions**—Buttons for moderating the corresponding question. You can highlight it, send it under the Presenter View tab, or move it under the Removed Questions tab.
Removed Questions tab	
Shows a scrolling list of the questions that you have hidden, at least temporarily, from the presenter. The list is updated as you add questions to it manually and as your filters remove questions automatically from the list of active questions under the Questions tab.	
Reactivate All	Moves all questions back to the list of active questions under the Questions tab.

Table 4-7 Elements for Moderating Live Events (continued)

Element	Description
Columns	Information about the questions is sorted into the following columns: • **Question**—The literal text of the question, exactly as it was submitted. • **Time Asked**—The date, hour, minute, and second when the question was submitted. • **Actions**—Buttons for moderating the corresponding question. You can highlight it, send it under the Presenter View tab, or move it under the Removed Questions tab.

Answering Questions

If you are the presenter at a live event, you can see and answer the questions that your moderator has prescreened for you.

Before You Begin

- The moderator or another member of the stage crew at your live event might already have opened the Q&A Administration window for you where you can see the list of questions that await your answer. Otherwise, if no one did this for you already, complete Step 1 through Step 2c in the "Moderating Questions" procedure on page 4-22; then, click the **Presenter's View** tab.

Procedure

Step 1 Under the Presenter's View tab, you will see a list of the questions that the moderator has screened and edited for you to answer. The list is updated whenever your moderator adds a question to it manually. Information about the questions is sorted into the following columns:

- **Question**—The literal text of the question, exactly as it was submitted.
- **Time Asked**—The date, hour, minute, and second when the question was submitted.
- **Actions**—A button to move the corresponding question under the Removed Questions tab.

Creating and Working with Playlists

DMM-VPM can help you to emphasize particular content offerings by showing key videos on your Video Portal under its Featured Playlist tab.

Tip You can track approvals for playlists. The approval process workflow does not help you to enforce any security policy; instead, it helps your organization to formalize communication. Content authors can request approval for playlists; then, a designated approver can approve or deny the requests. A designated approver is someone whose DMM-VPM user type is Approver. Not even a designated approver can approve his or her own requests. Approval and denial have *no effect* on whether a playlist can be deployed. For information about responding to requests for approval, see the "Approving or Denying the Request to Approve a Video Part or Playlist" section on page 4-18.

Before You Begin

- Each playlist must contain at least one video part before you can show it to any audience.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Video Portal > Playlists**.

On the Playlists page, you can toggle between two tables that are mostly very similar and that both show a list of DMM-VPM playlists. You can move playlists from one table to the other.

Step 3 Do one of the following:

- Click **Active** to see in the Active table a list of all the playlists that are available to show to your audience. These playlists are active in the sense that you have not disabled them. If you have not created any playlists or if you archived every playlist, the table is empty.
- Click **Archive** to see in the Archive table a list of all the playlists that you have disabled temporarily. These playlists are disabled in the sense that they are not available for your audience to find or see. You might choose eventually to restore or delete these playlists.

Step 4 Enter the values that meet your requirements.

Step 5 Click **Save**.

Related Topics

- Capturing a Live Stream and Publishing the Output File as Video On-Demand, page 4-48

UI Reference: Settings for Playlists

Table 4-8 describes the elements and settings for configuring playlists.

Navigation Path

Video Portal > Playlists

Table 4-8 Elements for Configuring Playlists

Element	Description
Add New Playlist	Shows the Add New Playlist page.
Archive Selected	Moves from the Active table to the Archive table the playlists that you chose.
Delete Selected	Shows the Delete Confirmation page. See the instructions on that page that tell you how to delete the archived playlist that you chose.
Activate Selected	Moves from the Archive table to the Active table the playlists that you chose.

Table 4-8 Elements for Configuring Playlists (continued)

Element	Description
columns	
Untitled check box	One of the following: • Marks a playlist that you will disable, when chosen in the Active table. • Marks a playlist that you disabled and that you will restore or delete, when chosen in the Archive table.
Name	The title of the playlist that the corresponding row describes, the Edit ( ) button, and the Preview ( ) button. Values in the name column are the basis by default for how DMM-VPM sorts the rows, but you can click the heading in any other column to re-sort the rows by the values in that column. If you click the Edit button, DMM-VPM loads a page where you can edit metadata, such as the title and description, for the playlist that the corresponding row describes. If you click the Preview button, your Video Portal shows to you the playlist that the corresponding row describes.
Publish Dates	The range of dates when which the playlist is valid between the release date and the end of life date.
Last Modified	The date on which the content object was last edited.
Active Video Parts	Shows the Active Video Parts ( ) button and the Add New Video Part ( ) button. If you click the Active Video Parts button, DMM-VPM loads a page where you can add video parts to the playlist that the corresponding row describes or mark video parts to remove from the playlist.
Current Status	Describes the approval status and helps you to request playlist approval from a DMM-VPM user with approver permissions. To request approval for the playlist that the corresponding row describes, click **Request Approval**, choose an approver from the list in the popup window, and then click **Request Approval** and **Close**.
Deployment Choice	Says whether the playlist that the corresponding row describes is the default playlist for deployments.
Add New Playlist | Modify Playlist	
Metadata attributes that define the playlist. Enter or choose the metadata after you click Add New Playlist or after you click the Edit button for a playlist.	
Name	The title for this playlist.
Status	Active or Inactive. When you choose Active, the playlist is visible to your audiences after you populate, save, and deploy it. When you choose Inactive, the playlist is not visible to your audiences. The default is Active.
Description	Enter a description that is meaningful to you. The description is optional and is only for your reference.
Make this lineup default choice for deployments?	Yes or No. To use this playlist by default in every deployment, choose Yes. Otherwise, choose No.
Release Date	This date is optional and is only for your reference.
End of Life Date	This date is optional and is only for your reference.

Table 4-8 Elements for Configuring Playlists (continued)

Element	Description
Add New Video Part | Modify Video Part	
*Choose a video part to add in the playlist that the corresponding row describes. To save your work, click **Save**.*	
Video Part Link	The title of the video part that you chose. DMM-VPM enters the title automatically after you choose the video part.
Select Video Part	Opens or reopens a popup window where you can choose a video part to add to the playlist. Choose a program from the Program list, and then choose a video part from the Video list. The popup window closes automatically. If you choose a video part by mistake, try again.
Play Order Position	Choose a playlist position for the video part, relative to the position of other video parts in the playlist.
Status	Active or Inactive. The default is Active.

Creating and Working with Content Categories

You can categorize programs according to characteristics that they have in common, such as their topic, subject matter, target audience, featured executive, or business function. Your audiences use corresponding categories on your Video Portal to find or browse content. The videos and video parts in a program inherit their category associations automatically.

The program guide on your Video Portal describes only the programs that you have categorized. If you deploy a program but do not associate it with any categories, it is not visible in the program guide. In this case, your audiences must either perform a keyword search or use the absolute URL to find and see a video that the program contains. Therefore, to improve the user experience for your audiences, we recommend that you associate each program with at least one category.

To create and manage categories and to associate programs with them, use the Categories page.

Procedure

Step 1 Choose **Video Portal** from the global navigation, then choose **Video Portal > Categories**.

On the Categories page, you can toggle between two tables that are mostly very similar and that both show a list of DMM-VPM content categories. You can move categories from one table to the other.

Step 2 Do one of the following:

- Click **Active** to see in the Active table a list of all the categories that are available to associate with content objects and show to your audience. These categories are active in the sense that you have not disabled them. If you have not created any categories or if you archived every category, the table is empty.
- Click **Archive** to see in the Archive table a list of all the categories that you have disabled temporarily. These categories are disabled in the sense that they are not available for your audience to find or see and you cannot associate them with any content objects. You might choose eventually to restore or delete these categories.

Step 3 Enter the values that meet your requirements.

Related Topics

- UI Reference: Category Settings, page 4-28

UI Reference: Category Settings

Table 4-9 describes the elements and settings that you configure for categories.

Navigation Path

Video Portal > Categories

Table 4-9 Elements for Configuring Categories

Element	Description
Add New Category	Shows the Add New Category page.
Archive Selected	Moves from the Active table to the Archive table the categories that you chose.
Delete Selected	Shows the Delete Confirmation page. See the instructions on that page that tell you how to delete the archived category that you chose.
Activate Selected	Moves from the Archive table to the Active table the categories that you chose.

columns

Untitled check box	One of the following: • Marks a category that you will disable, when chosen in the Active table. • Marks a category that you disabled and that you will restore or delete, when chosen in the Archive table.
Name	The name of the category that the corresponding row describes and the Modify ( ) button. Values in the Name column are the basis by default for how DMM-VPM sorts the rows, but you can click the heading in any other column to re-sort the rows by the values in that column. If you click the Edit button, DMM-VPM loads a page where you can edit metadata, such as the name and description, for the category that the corresponding row describes.
Last Modified	The date and time when the category was last edited.
Date Added	The date and time when the category was created.
# of Programs	Shows the Active Associated Programs ( ) button. If you click the button, DMM-VPM loads a page where you can associate programs with the category that the corresponding row describes or mark programs to disassociate from the category.

Add New Category | Modify Category

*Metadata attributes that define the category. Enter or choose the metadata after you click Add New Category or after you click the Edit button for a category. To save your work, click **Save**.*

Category Name	The name for this category. Your audiences see this category name on your Video Portal when they use its the Program Guide tab to browser by category.

Table 4-9 Elements for Configuring Categories (continued)

Element	Description
Category Status	Active or Inactive. When you choose Active, the category is visible to your audiences and you can associate programs with it. When you choose Inactive, the category is not visible to your audiences, and you cannot associate programs with it. The default is Active.
Associated Programs	Lists all programs, so that you can select any of them to associate with the category or deselect any of them to disassociate from the category. You must associate each category with at least one program, but there is no upper limit to the number of programs that you can associate with any category. You can add or remove category associations at any time.
Category Description	Enter a description that is meaningful to you. The description is optional and is only for your reference.

Creating and Working with Interstitials

In DMM-VPM, an interstitial is a short segment that your Video Portal shows when you have not scheduled anything else to show. To create a new interstitial, follow these steps:

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Video Portal > Interstitials**.

On the Interstitials page, you can toggle between two tables that are mostly very similar and that both show a list of DMM-VPM interstitials. You can move interstitials from one table to the other.

Step 3 Do one of the following:

- Click **Active** to see in the Active table a list of all the interstitials that are available. These interstitials are active in the sense that you have not disabled them. If you have not created any interstitials or if you archived every interstitial, the table is empty.
- Click **Archive** to see in the Archive table a list of all the interstitials that you have disabled temporarily. These interstitials are disabled in the sense that your audience will not see them. You might choose eventually to restore or delete these interstitials.

Step 4 Enter the values that meet your requirements.

Step 5 Click **Save**.

Related Topics

- UI Reference: Interstitial Settings, page 4-29

UI Reference: Interstitial Settings

Table 4-10 describes the elements and settings for configuring interstitials.

Navigation Path

Video Portal > Interstitials

Table 4-10 Elements for Configuring Interstitials

Element	Description
Add New Category	Shows the Add New Interstitial page.
Archive Selected	Moves from the Active table to the Archive table the interstitials that you chose.
Delete Selected	Shows the Delete Confirmation page. See the instructions on that page that tell you how to delete the archived interstitial that you chose.
Activate Selected	Moves from the Archive table to the Active table the interstitials that you chose.

columns

Untitled check box	One of the following: • Marks an interstitial that you will disable, when chosen in the Active table. • Marks an interstitial that you disabled and that you will restore or delete, when chosen in the Archive table.
Name	The Modify ( ) button, the name of the interstitial that the corresponding row describes, and the name of the video part that the interstitial contains. The interstitial name in this column is the basis by default for how DMM-VPM sorts the rows, but you can click the heading in the Length column to re-sort the rows by duration. If you click the Edit button, DMM-VPM loads a page where you can edit metadata, such as the name and description, for the interstitial that the corresponding row describes.
Length	The number of seconds that the video part will play until it stops.

Add New Interstitial | Modify Interstitial

Physical and logical attributes of the interstitial. Enter or choose the attributes after you click Add New Interstitial or after you click the Edit button for an interstitial. To save your work, click ***Save****.*

Name	The name for this interstitial. Enter a maximum of 50 characters.
File URL	The full path and name of the file to use as an interstitial, after you a upload the file but before you deploy it. After you deploy the interstitial, this value is changed automatically to show the URL for deployment.
Upload new Interstitial graphical media file	Uploads a SWF or nonprogressive JPEG file that is 400 pixels wide and 120 pixels high. This file acts like a button; when your audiences click it, your Video Portal shows to them the click-through segment that you specify.
Click Through Segment	To choose the video part that your Video Portal should show to someone who clicks the interstitial, click **Select a Video Part**.
Play Duration	The number of seconds that the video part should play until it stops.

Table 4-10 Elements for Configuring Interstitials (continued)

Element	Description
Description	Enter a description that is meaningful to you. The description is optional and is only for your reference.
Status	Active or Inactive. When you choose Active, your audiences see the interstitial. When you choose Inactive, the category is not visible to your audiences, and you cannot associate programs with it. The default is Active.

Creating and Working with Interstitial Sequences

You can create a new interstitial sequence, which is an ordered list of interstitials that your Video Portal should play when you have not scheduled it to show anything else.

Procedure

Step 1 Choose **Video Portal** from the global navigation,

Step 2 Choose **Video Portal > Interstitial Sequences**.

On the Interstitial Sequences page, you can toggle between two tables that are mostly very similar and that both show a list of sequences. You can move sequences from one table to the other.

Step 3 Do one of the following:

- Click **Active** to see in the Active table a list of all the sequences that are available. These sequences are active in the sense that you have not disabled them. If you have not created any sequences or if you archived every sequence, the table is empty.
- Click **Archive** to see in the Archive table a list of all the sequences that you have disabled temporarily. These sequences are disabled in the sense that your audience will not see them. You might choose eventually to restore or delete these sequences.

Step 4 Enter the values that meet your requirements

Step 5 Click **Save**.

Related Topics

- UI Reference: Interstitial Sequence Settings, page 4-31

UI Reference: Interstitial Sequence Settings

Table 4-11 describes the elements and settings for configuring interstitial sequences.

Navigation Path

Video Portal > Interstitial Sequences

Table 4-11 Elements for Configuring Interstitial Sequences

Element	Description
Add New Interstitial Sequence	Shows the Add New Interstitial Sequence page.
Archive Selected	Moves from the Active table to the Archive table the sequences that you chose.
Delete Selected	Shows the Delete Confirmation page. See the instructions on that page that tell you how to delete the archived sequence that you chose.
Activate Selected	Moves from the Archive table to the Active table the sequences that you chose.

columns

Untitled check box	One of the following: • Marks a sequence that you will disable, when chosen in the Active table. • Marks a sequence that you disabled and that you will restore or delete, when chosen in the Archive table.
Name	The Modify ( ) button and the name of the sequence that the corresponding row describes. Values in the name column are the basis by default for how DMM-VPM sorts the rows, but you can click the heading in any other column to re-sort the rows by the values in that column. If you click the Edit button, DMM-VPM loads a page where you can edit metadata, such as the name and description, for the sequence that the corresponding row describes.
Date Added	The date and time when the sequence was created.
Last Modified	The date and time when the sequence was last edited.
Active Interstitials	Shows the Active Interstitials ( ) button and the Add New Interstitial ( ) button. If you click the Active Interstitials button, DMM-VPM loads a page where you can add interstitials to the playlist that the corresponding row describes or mark interstitials to remove from the playlist.
Deployment Choice	Says whether the sequence that the corresponding row describes is the default sequence for deployments.

Add New Interstitial Sequence | Modify Interstitial Sequence

Metadata attributes that define the sequence. Enter or choose the metadata after you click Add New Interstitial Sequence or after you click the Edit button for a sequence. To save your work, click ***Save****.*	
Name	The name for this sequence. Enter a maximum of 50 characters.
Description	Enter a description that is meaningful to you. You must enter the description. Enter a maximum of 2,000 characters.
Status	Active or Inactive. When you choose Active, your audiences see the sequence. When you choose Inactive, the sequence is not visible to your audiences. The default is Active.
Make this sequence default choice for deployments?	Yes or No. To use this sequence by default when your Video Portal is not showing anything else, choose Yes. Otherwise, choose No.

Creating and Working with Tickers

In DMM-VPM, a ticker is scrolling text that your Video Portal shows to your audiences.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Video Portal > Tickers**.

On the Tickers page, you can toggle between two tables that are mostly very similar and that both show a list of tickers. You can move tickers from one table to the other.

Step 3 Do one of the following:

- Click **Active** to see in the Active table a list of all the tickers that are available. These tickers are active in the sense that you have not disabled them. If you have not created any tickers or if you archived every ticker, the table is empty.
- Click **Archive** to see in the Archive table a list of all the tickers that you have disabled temporarily. These tickers are disabled in the sense that your audience will not see them. You might choose eventually to restore or delete these tickers.

Step 4 Enter the values that meet your requirements.

Step 5 Click **Save**.

Related Topics

- UI Reference: Ticker Settings, page 4-33

UI Reference: Ticker Settings

Table 4-12 describes the elements and settings for configuring tickers.

Navigation Path

Video Portal > Tickers

Table 4-12 Elements for Configuring Tickers

Element	Description
Clear Defaults	Stops your Video Portal from playing any ticker.
Add New Ticker	Shows the Add New Ticker page.
Archive Selected	Moves from the Active table to the Archive table the tickers that you chose.
Delete Selected	Shows the Delete Confirmation page. See the instructions on that page that tell you how to delete the archived ticker that you chose.
Activate Selected	Moves from the Archive table to the Active table the tickers that you chose.

Table 4-12 Elements for Configuring Tickers (continued)

Element	Description
columns	
Untitled check box	One of the following: • Marks a sequence that you will disable, when chosen in the Active table. • Marks a sequence that you disabled and that you will restore or delete, when chosen in the Archive table.
Name	The Modify ( ) button and the name of the ticker that the corresponding row describes. Values in the name column are the basis by default for how DMM-VPM sorts the rows, but you can click the heading in any other column to re-sort the rows by the values in that column. If you click the Edit button, DMM-VPM loads a page where you can edit the ticker that the corresponding row describes.
Launch Date	The date and time when the ticker should start.
Expiration Date	The date and time when the ticker should stop and should no longer be visible in your Video Portal.
Deployment Choice	Says whether the ticker that the corresponding row describes is the default ticker for deployments.
Add New Ticker | Modify Ticker	
*Physical and logical attributes of the ticker. Enter or choose the attributes after you click Add New Ticker or after you click the Edit button for a ticker. To save your work, click **Save**.*	
Ticker Name	The name for this ticker. Enter a maximum of 50 characters.
Ticker Description	Enter a description that is meaningful to you. You must enter the description. Enter a maximum of 2,000 characters.
Ticker Text	Enter the text that the ticker should show on your Video Portal. Enter a maximum of 2,000 characters. The text that you enter will scroll across the bottom of your Video Portal.
Ticker Status	Active or Inactive. When you choose Active, your audiences see the ticker. When you choose Inactive, the ticker is not visible to your audiences. The default is Active.
Launch Date	Choose the month, day, and year when your Video Portal should start the ticker.
Make this ticker default choice for deployments?	Yes or No. To show this ticker by default on your Video Portal, choose Yes. Otherwise, choose No.
End of Life Date	Choose the month, day, and year when your Video Portal should stop the ticker.

Customizing Your Video Portal

DMM-VPM helps you to control and customize the user interface colors that your audiences see when they use your Video Portal. You can customize the coloration of backgrounds, logos, ticker messages, interstitials, and controls.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Video Portal > User Interfaces**.

On the User Interfaces page, you can toggle between two tables that are mostly very similar and that both show named sets of user interface customizations. You can move sets from one table to the other.

Step 3 Do one of the following:

- Click **Active** to see in the Active table a list of all the customization sets that are available, meaning that you have not disabled them. If you have not created any customization sets or if you archived every set, the table is empty.
- Click **Archive** to see in the Archive table a list of all the customization sets that you have disabled temporarily. These customizations are disabled in the sense that your audience will not see them. You might choose eventually to restore or delete these customization sets.

Step 4 Enter the values that meet your requirements.

Step 5 Click **Save**.

Related Topics

- UI Reference: Customization Settings, page 4-35

UI Reference: Customization Settings

Table 4-13 describes the elements and settings that you configure to customize the Video Portal.

Navigation Path

Video Portal > User Interfaces

Table 4-13 Elements for Customizing the Video Portal

Element	Description
Add New Interface	Shows the Add New Interface page, described elsewhere in this topic.
Archive Selected	Moves from the Active table to the Archive table the customization sets that you chose.
Delete Selected	Shows the Delete Confirmation page. See the instructions on that page that tell you how to delete the archived customization sets that you chose.
Activate Selected	Moves from the Archive table to the Active table the customization sets that you chose.
columns	
Untitled check box	One of the following: • Marks a customization set that you will disable, when chosen in the Active table. • Marks a customization set that you disabled and that you will restore or delete, when chosen in the Archive table.

Table 4-13 Elements for Customizing the Video Portal (continued)

Element	Description
Name	The Modify ( ) button, the Preview ( ) button, and the name of the customization set that the corresponding row describes. Values in the name column are the basis by default for how DMM-VPM sorts the rows, but you can click the heading in any other column to re-sort the rows by the values in that column. If you click the Edit button, DMM-VPM loads a page where you can edit the customization set that the corresponding row describes. If you click the Preview button, your Video Portal shows to you the customization set that the corresponding row describes, so you can confirm that the customizations work as you expect them to before you deploy them to your Video Portal.
Date Added	The date and time when the customization set was created.
Last Modified	The date and time when the customization set was last edited.
Deployment Choice	Indicates whether the customization that the corresponding row describes is the default Video Portal user interface for deployments.

Add New Interface | Modify Interface
Required Items

User interface attributes that you must define to add or edit a Video Portal user interface. Enter or choose these values after you click Add New Interface or after you view properties of a customized user interface. To save your work, click ***Save****.*

Name	The name for this set of customizations. Enter a maximum of 50 characters.
Background Image	The nonprogressive JPEG file that serves as the background image. The file that you choose should be 720 pixels wide by 540 pixels high, and should not distract or detract from the content that you want to emphasize. To upload a new image, click **Upload New Background Image File**. Alternatively, to choose a factory-default image or a file that you uploaded previously, click **Existing Images**.

Table 4-13 Elements for Customizing the Video Portal (continued)

Element	Description
Video Portal Colors	Hexadecimal color values and contrast scale values for the public user interface on your Video Portal. Enter hexadecimal color values and contrast scale values for the background panel, tab text, and listing text, as well as the buttons and sliders. Alternatively, to make selections from palettes and see a preview of them in real time, click **Preview Colors**. **Tip** Hexadecimal color values in SWF files do not always match exactly the same hexadecimal color values in other file types. If your organization uses precise color values as part of its branding strategy, you might have to adjust the colors slightly for SWF files to see the intended result.
	The color-picker popup window includes a dynamic preview pane that shows the effect of your color and contrast selections in real time, exactly as audience members will see them if you use them on your Video Portal. To choose colors and make selections for Video Portal user interface subcomponents, click {**Panel Background Color** | **Tab Text Color** | **Content Listing Text Color** | **Button and Slider Color**}. The options are as follows: • To choose a hue, drag the handle up and down the *color slider*, meaning the vertical, rectangular area that shows a gradient and is always red along both its top and its bottom edges. Alternatively, enter a number from 0 to 360 in the H field, where each value within that range signifies one of the hues that is possible, relative to RGB intensities. • To choose a color range, click it in the *color space*, meaning the square area that shows a gradient and is always black along its bottom edge. The horizontal *x*-axis here signifies color saturation (corresponding to the S field), while the vertical *y*-axis signifies the value of color brightness (corresponding to the V field). Alternatively, to adjust the color saturation, enter a number from 0 to 100 in the S field; and, to adjust the value of color brightness, enter a number from 0 to 100 in the V field. • To choose the numeric "intensity multiplier" for contrast, which affects the magnitude of difference between foreground luminance and background luminance, use the Contrast slider. Higher values increase the color saturation, while lower values desaturate colors. To save your work in the color-picker popup window and automatically populate or repopulate the corresponding fields on the {Add New Interface | Modify Interface} page, click **Save**. Alternatively, to discard your work in the color-picker popup window, click **Cancel**.
Interface Idle Duration	In seconds, the idle time that you allow after any one of your scheduled shows has stopped before your Video Portal starts to show (and loop) interstitials.
Make this template default choice for deployments?	Yes or No. To show this user interface customization set by default on your Video Portal, choose Yes. Otherwise, choose No.
Status	Active or Inactive. When you choose Active, you can choose the customization set as one that your audiences see. When you choose Inactive, the customization set is not selectable as one that your audiences might see. The default is Active.

Add New Interface | Modify Interface
(*Optional Items*)

*Optional user interface attributes that you can define when you add or edit a Video Portal user interface. Enter or choose these values after you click Add New Interface or after you view properties of a customized user interface. To save your work, click **Save**.*

Description	Enter a description that is meaningful to you. Enter a maximum of 2,000 characters.

Table 4-13 Elements for Customizing the Video Portal (continued)

Element	Description
Header Logo	The nonprogressive JPEG file that serves as the logo for your Video Portal. The file that you choose should be 470 pixels wide by 60 pixels high. The tabbed area on your Video Portal will cover and hide the lower right quarter of the image, so we recommend that quadrant not contain anything important. It is optional to use a logo. Do one of the following: • To upload a logo file that you have never uploaded, click **Upload new Header Logo file**. • To reuse a logo file that you uploaded previously for use in another customization set, click **Existing Images**. • If you click **Check** to confirm your choice to use the logo, you see one of the following messages: – "Field is blank"—You have not entered any path. – "File Path Does Not Exist"—You entered an invalid path. – "File Path exists"—The path that you entered points correctly to a valid file.
Interface Links	As many as three web links that your Video Portal should show: • **Link Text**—The clickable text to show. Enter a maximum of 17 characters. • **URL**—The HTTP URL for the clickable text. • If you click **Check** to confirm that a URL is valid, you see one of the following messages: – "URL is blank"—You have not entered any URL. – "Server was not found"—You entered an invalid URL. – "URL exists"—The URL that you entered points correctly to a valid file.

Configuring the Settings to Manage Deployments

You must deploy all additions, updates, and other changes in your content and data. You can deploy immediately or schedule deployments in advance for any time and date. You can cancel any deployment that you schedule.

Note You do not need to deploy video parts when you make changes to access restrictions. These changes take effect immediately.

After you schedule a deployment, the Currently Scheduled Deployments table is refreshed and shows the new deployment that you scheduled, in its chronological sequence relative to any other scheduled deployments. DMM-VPM then deploys the job to the deployment location that you specified under the Setup tab (see the "Configuring the Location Settings for Deployments" section on page 4-6). After a deployment is finished, the Currently Scheduled Deployments table is refreshed again, so it no longer includes any description of the deployment.

This section contains the following topics:

• Understanding Event Types, page 4-39
• Scheduling a New Deployment, page 4-39
• Scheduling a Pre-Event Listing, page 4-42
• Scheduling a Live Event, page 4-42

- Scheduling a Post-Event Listing, page 4-43
- Scheduling an On-Demand Deployment, page 4-44
- Learning the URL for a Deployed Video Part, page 4-44

Understanding Event Types

Live event offerings differ from on-demand offerings in the following ways:

Table 4-14 Differences Between Live and On-demand Events

Live events	Live events are scheduled to start and stop at a fixed date and time. After a live event starts, audience members who connect late see the event in progress and cannot see what came before. Each audience member sees the same thing at the same time as other audience members. Audience members cannot see a live stream before the event starts, go backward, or skip ahead. When a live event stops, it is no longer available to anyone. For information about the differences between the Live Event and Non-DME Live Event options, see the "Add New Video Part | Modify Video Part" section of Table 4-6 on page 4-12. You can record a live event as it occurs, and then edit and upload the recording for on-demand access shortly thereafter. Live events are either *push*ed or *pull*ed: • Push—The encoder pushes the live stream to a streaming server. • Pull—The streaming server pulls the live stream from an encoder. **Tip** Using the Video Part page, you can upload a pre-event image and post-event image. These will appear in the video frame before and after the live event. Also, your encoder can simultaneously stream a live event and save it to a file.
On-demand events	You schedule on-demand events to become available at any date and time that you specify and to remain available for any span of hours or dates that you specify, depending on the freshness or relevance of the content. Any audience member can start at the beginning of an event, no matter when they see it. Likewise, any audience member can rewind, skip ahead, or jump to different parts of an event at any time, assuming that your Video Portal makes these video navigation controls available. As long as an on-demand offering is available, audience members can see it at any time. You can archive an on-demand event at any time; after you archive an event, no one in your audience can see it.

Related Topics

- Capturing a Live Stream and Publishing the Output File as Video On-Demand, page 4-48

Scheduling a New Deployment

You can schedule a new deployment.

Before You Begin

- If you configured your browser to block popup windows, reenable popup windows now. You cannot complete this procedure successfully if your browser blocks popup windows.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Video Portal > Deployments**.

The Currently Scheduled Deployments page lists all of the scheduled and queued deployments, as described in Table 4-15 on page 4-41.

Step 3 Click **Schedule New Deployment**.

The Active Inactive Removed legend at the top of the page shows the real-time color-coding that DMM-VPM applies to entities in the list, based on change statuses:

- Active—Entities whose status has been changed to Active. All entities classified as Active are visible in the Video Portal after deployment.
- Inactive—Entities whose status has been changed to Inactive. All entities classified as inactive or removed disappear from the Video Portal after deployment.
- Removed—Entities that have been permanently deleted from DMM-VPM.

Step 4 In the "Video Part Selection" area, click a check box to choose the corresponding **video part**.

DMM-VPM automatically lists for selection all new and modified video parts whose status is set to Active. Each video part is displayed with its corresponding videos and programs. All uploaded files, file references, and metadata associated to each Active video part are deployed with your selection. These files are deployed to the deployment location that you specified under the Setup tab.

Step 5 In the "Additional Items Included in Deployment" area, review any metadata changes that will be published with your deployment.

The following entities are identified in the Metadata Changes:

- Categories—All categories whose status has changed or that were deleted.
- Programs—All programs whose status has changed or that were deleted.
- Videos—All videos whose status has changed or that were deleted.

Step 6 Choose options from these lists in the "Global Options" area:

- **Featured Playlist**—Choose the playlist to publish on your Video Portal.

  The list displays all Active Featured Playlists in alphabetical order by Featured Playlist Name with the Default Featured Playlist chosen by default. There can only be one Featured Playlist visible in the Video Portal at any given time.

- **User Interface**—Choose the customization set to use on your Video Portal.

  The alphabetical list contains all Active user interfaces customization sets with the default customization set chosen by default. There can only be one user interface visible in your Video Portal at any given time.

- **Ticker**—Choose the ticker to publish on your Video Portal.

  The list displays all Active tickers in alphabetical order by name with the default ticker chosen by default. To hide the ticker, click **Don't Show a Ticker.** You can use no more than one ticker at a time on your Video Portal.

- **Interstitial Sequence**—Choose the sequence to publish on your Video Portal.

  The list displays all Active Interstitial Sequences in alphabetical order by Interstitial Sequence Name with the Default Interstitial Sequence chosen by default. There can only be one Interstitial Sequence visible in the Video Portal at any given time.

Step 7 Choose the deployment date and time in the "Deployment Time" area, or check the **Schedule Immediately** check box. When you choose a scheduled deployment, the default date is 7 days from today. Remember the following information:

- The relevant time zone is the one that you specified when you set up your DMM appliance. If an administrator set up your DMM appliance and you cannot guess what time zone is in effect at its deployment location, contact its system administrator.
- To conduct a live online event successfully, you must complete either three or four separate deployments in exactly the following sequence:
  1. Prepare the pre-event listing to tell Video Portal audience members about the upcoming live event.
  2. Prepare the actual live event offering.
  3. Prepare the post-event listing to tell Video Portal audience members that the live event has concluded and is no longer available.
  4. (**Optional**) Prepare the on-demand offering, which is a recorded version of the live event.

Step 8 To save your work and schedule the deployment, click **Create Deployment**.

Related Topics

- Creating and Working with Playlists, page 4-24
- Creating and Working with Interstitial Sequences, page 4-31
- Creating and Working with Tickers, page 4-33
- Customizing Your Video Portal, page 4-34
- Scheduling a Pre-Event Listing, page 4-42
- Scheduling a Live Event, page 4-42
- Scheduling a Post-Event Listing, page 4-43
- Scheduling an On-Demand Deployment, page 4-44

UI Reference: Settings for Deployments

Navigation Path

Video Portal > Deployments

Table 4-15 Elements for Deployment Scheduling

Element	Description
Schedule New Deployments	Schedule a new deployment.

columns

Scheduled Deployment	The date and time for which existing deployments are scheduled, listed in chronological order starting with the earliest deployment.
Date Added	The date and time when existing deployments were added to DMM-VPM.
Cancel	Cancel a deployment.

Scheduling a Pre-Event Listing

You can schedule a pre-event listing. We recommend that you use targeted e-mail messages or a web site to preannounce your live events. The notifications that you prepare can describe, for example, the event date and time, its subject matter, the speaker, and the moderator. A notification can also link directly to the pre-event listing on your Video Portal.

Before You Begin

- Ensure that your video part metadata is set appropriately for a pre-event listing.
- If you configured your browser to block popup windows, reenable popup windows now. You cannot complete this procedure successfully when your browser blocks popup windows.
- Complete Steps 1–6 in the "Scheduling a New Deployment" procedure on page 4-39.

Procedure

Step 1 Choose the deployment date and time in the "Deployment Time" area when your pre-event listing should become available on your Video Portal. The deployment date is by default today.

Note The relevant time zone is the one that you specified when you set up your DMM appliance. If an administrator set up your DMM appliance and you cannot guess what time zone is in effect at its deployment location, contact the system administrator.

Step 2 To schedule the deployment, click **Create Deployment**.

Scheduling a Live Event

You can schedule a live event.

Before You Begin

- Ensure that your video part metadata is set appropriately for a pre-event listing.
- If you configured your browser to block popup windows, reenable popup windows now. You cannot complete this procedure successfully when your browser blocks popup windows.
- Complete Steps 1–6 in the "Scheduling a New Deployment" procedure on page 4-39.

Procedure

Step 1 Choose the deployment date and time in the "Deployment Time" area when your live event should become available on your Video Portal. The default date is 7 days from today.

Note The relevant time zone is the one that you specified when you set up your DMM appliance. If an administrator set up your DMM appliance and you cannot guess what time zone is in effect at its deployment location, contact the system administrator.

Tip We recommend that your Video Portal show a countdown to the live event for 10-15 minutes and then replace the countdown with the audio-video stream when the live event actually starts.

Step 2 To schedule the deployment, click **Create Deployment**.

Scheduling a Post-Event Listing

You can schedule a post-event listing.

Before You Begin

- Ensure that your video part metadata is set appropriately for a post-event listing.
- If you configured your browser to block popup windows, reenable popup windows now. You cannot complete this procedure successfully when your browser blocks popup windows.
- Complete Steps 1–6 in the "Scheduling a New Deployment" procedure on page 4-39.

Procedure

Step 1 Choose the deployment date and time in the "Deployment Time" area when the post-event listing should become available on your Video Portal. The default date is 7 days from today.

Note The relevant time zone is the one that you specified when you set up your DMM appliance. If an administrator set up your DMM appliance and you cannot guess what time zone is in effect at its deployment location, contact the system administrator.

Step 2 To schedule the deployment, click **Create Deployment**.

Scheduling an On-Demand Deployment

You can schedule an on-demand deployment.

Before You Begin

- Ensure that your video part metadata is set appropriately for an on-demand deployment.
- If you configured your browser to block popup windows, reenable popup windows now. You cannot complete this procedure successfully if your browser blocks popup windows.
- Complete Steps 1–6 in the "Scheduling a New Deployment" procedure on page 4-39.

Procedure

Step 1 Choose the deployment date and time in the "Deployment Time" area, when the on-demand deployment should become available on your Video Portal. The default date is 7 days from today.

Note The relevant time zone is the one that you specified when you set up your DMM appliance. If an administrator set up your DMM appliance and you cannot guess what time zone is in effect at its deployment location, contact the system administrator.

Step 2 To schedule the deployment, click **Create Deployment**.

Learning the URL for a Deployed Video Part

There is no need for you to navigate through your Video Portal to find a video part after you deploy it successfully because DMM-VPM links directly to it as a convenience to you. The link is not specific to any particular media format because your Video Portal determines automatically which format to deliver to each audience member according to his or her system configuration.

Procedure

Step 1 Choose **Video Portal > Programs**.

Step 2 Find the row that describes the relevant program, and click **Active Videos** ( ) in that row.

Step 3 Find the row that describes the relevant video, and click **Active Video Parts** ( ) in that row.

Step 4 Find the row that describes the relevant video part; then, do one of the following:

- To play the video part, click **Preview** ( ) in that row.
- To learn the actual URL for the video part, click **Modify** ( ) in that row, and click **Show Direct Portal Link**.

Managing Digital Media Encoders

Administrators and configuration managers use the features on the Encoders tab to manage Cisco Digital Media Encoders.

- Adding an Encoder to DMM-VPM, page 4-45
- Testing the Ability to Publish Streams, page 4-47
- Capturing a Live Stream and Publishing the Output File as Video On-Demand, page 4-48
- Managing Push Configurations, page 4-49
- Creating and Working with Encoding Formats, page 4-49
- Managing Transcoding Jobs, page 4-50

Adding an Encoder to DMM-VPM

You can add an encoder to DMM-VPM.

Procedure

Step 1 Set up and connect the encoder according to the procedures in its documentation.

Step 2 Choose **Video Portal** from the global navigation.

Step 3 Determine whether the encoder will *push* streams to the streaming server or the streaming server will *pull* streams from the encoder; then, complete the steps in Table 4-16, as needed.

Table 4-16 Push and Pull Procedures

Stream Type	Procedure	
Push	In *push* configurations, the encoder pushes streams to the streaming server. Push configurations apply only to Windows Media streams.	
	Step 1	Choose **Encoders > Push Configurations**.
	Step 2	Enter the required values, including the streaming server URL and port number.
	Step 3	Click **Save**.
Pull	In *pull* configurations, the streaming server pulls streams from the encoder.	
	Step 1	Choose **Encoders > Encoders and Pull Configurations**.
	Step 2	If you do not know the encoder IP address or DNS-resolvable hostname, go to the encoder front panel, then choose **Menu > Setup System > Network > 100 Mbit** (or **1,000 Mbit**) **> View Settings > IP Address(es)**.
	Step 3	Enter the encoder IP address or hostname in the **Encoder IP Address/Hostname** field. We recommend that you use a port number that is in the range from 6000 to 7000.
	Step 4	Click **Discover Encoder**. The button changes color and animates until the discovery process is finished.
	Step 5	Enter the encoder name and description in their respective fields. For example, you might identify or describe the owner, location, or purpose of the encoder, or enter exactly the serial number text from a sticker on the encoder chassis.
	Step 6	Choose options in the "Default Encoder Input Settings" area to choose the video input, audio input, and video input standard settings that you will use most often.
	Step 7	Choose **Push** or **Pull** as your most common method to publish live events, and do one of the following: • When you choose Push, choose an option from the **Default Push Configuration** list to choose the default push configuration for this encoder. Alternatively, click **Add New Push Options Here**. • When you choose Pull, click **Add a Pull Configuration** to add the streaming server pull configurations for this encoder. When you choose Pull, DMM-VPM automatically creates a pull configuration called "test only (encoder-direct, port 6990)," which you can use to test streams that originate directly from the encoder.
	Step 8	To save your choices, click **Save this Encoder**. You should see a green box at the top of the page with the message "Successfully saved '{Encoder Name}'."

Related Topics

- Managing Push Configurations, page 4-49

Testing the Ability to Publish Streams

You can use DMM-VPM to test whether your encoder can publish a stream.

Procedure

Step 1 To see the encoder dashboard, choose **Video Portal** from the global navigation.

Step 2 Click the **Encoders** tab.

Step 3 In the encoder selection tree, find the encoder that you want to test, click **Expand Encoder** () to see the *ad hoc streaming controls* for it, and click **Encoder Setup**.

Step 4 From the **Video Format** list, choose the bit rate that you want to test, and check the **Publish as a Streaming Video** check box.

Step 5 Choose a Push publishing configuration or a Pull publishing configuration.

Tip To test a stream directly from the encoder, choose the **test only (encoder-direct, port 6990)** pull configuration.

Step 6 Confirm that a live video source is connected to your encoder; then, choose the options from the following lists that match your video source:

- Video Input
- Audio Input
- Video Input Standard

Step 7 Click **Start Encoder**.

Tip If the Start Encoder option is not visible, check the Stop Event date for the live event video part.

The button becomes animated and the animation continues until the encoder starts. A delay that ranges from 10 to 25 seconds is normal.

Step 8 After the encoder starts, click **Close** in the Encoder Setup window.

Step 9 Do either or both of the following to test the video stream:

- Click **View Live Video**. A popup window plays your current live stream.
- To test the video stream as a static image that is updated periodically, click **Click to start preview**. Your encoder serves the static image directly, independent of your streaming server.

Step 10 Click **Stop Encoder**.

Capturing a Live Stream and Publishing the Output File as Video On-Demand

Your encoder can capture and save a live stream as a file, which you can publish as video on-demand.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Click the **Encoders** tab to see the encoder dashboard.

Step 3 In the encoder selection tree, find the encoder that you will use, click **Expand Encoder** ( ) to see the *ad hoc streaming controls* for it, and click **Encoder Setup**.

Step 4 Check the **Store as File** check box; then, enter a filename for the saved file.

Step 5 Confirm that a live video source is connected to your encoder and choose the options from the following lists that match your video source:

- Video Input
- Audio Input
- Video Input Standard

Step 6 Click **Start Encoder**.

The button becomes animated and the animation continues until the encoder starts. A delay that ranges from 10 to 25 seconds is normal.

Step 7 After the encoder starts, click **Close** in the Encoder Setup window.

Step 8 When you are ready to stop adding video from the stream to the output file that you are creating, click **Stop Encoder**.

Note The VoD file is overwritten each time that you click the Start/Stop button.

Step 9 To retrieve the output file from your encoder, point your web browser to **ftp://**<*encoder_IP_address*>**/AVFiles/Out**.

Step 10 Right-click the filename in the directory listing and choose the option to download the file.

Step 11 (**Optional**) Use third-party software to edit the file.

Note If you use a third-party software to edit the VoD file, the slide synch commands that were created during the live event will be erased, and the slides will not be synchronized for the VoD.

Step 12 Before you can deliver the downloaded output file to your Video Portal audiences as a video on-demand offering, you must deploy it as a VoD video part.

Related Topics

- Working with Programs, Videos and Video Parts, page 4-10
- Scheduling an On-Demand Deployment, page 4-44

Managing Push Configurations

You can manage push configurations, which apply only to Windows Media streams.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Encoders > Push Configurations**.

Step 3 Enter the push configuration name and description in their respective fields.

Tip The push configuration name that you enter now will be an option that you can choose from a list before you start your encoder.

Step 4 Enter and confirm the other values:

- **Format**—Windows Media is the only supported option in this release.
- **Streaming Server Base URL**—Enter the base URL and port number for your streaming server.
- **Name of Publishing Point**—Enter the name of your Publishing Point.
- **Full Stream URL**—Confirm that the URL is the valid URL for your publishing point.
- **User ID** and **Password**—(**Optional**) Enter the username and password to push a stream to your streaming server if it requires authentication.

Step 5 Click **Save**.

Creating and Working with Encoding Formats

An *encoding format* is a collection of settings to specify a particular combination of media type and video dimensions and to limit video bandwidth consumption and video quality.

DMM-VPM is preconfigured with the recommended encoding formats for your Video Portal. You can recognize these predefined and preferred formats in the Encoding Formats list when you first start to use DMM-VPM because it appends the word “default” to their names. If you choose other encoding formats as your defaults, the “default” label no longer signifies that any encoding format is one that Cisco defined.

You can choose only one default encoding format apiece for each supported media type. For example, you might choose one encoding format as the default for Windows Media and a different encoding format as the default for Flash Video.

You can add or edit an encoding format.

Procedure

Step 1 Choose **Video Portal** from the global navigation.

Step 2 Choose **Encoders > Encoding Formats**, and do one of the following:

- To create and define a new encoding format, click **Add a new Encoding Format**.
- To edit an encoding format that you saved, click its name in the list.

Step 3 Enter or choose the required values to define the encoding format:

- **Encoding Format Name**—Enter a unique and meaningful name for this encoding format.
- **Profile Description**—Enter a description.
- **Set as a Default Format**—Check the check box if DMM-VPM should use this encoding format automatically when you choose the Use Default Streaming Settings option on the {Add New | Modify} Video Part page.
- **Format**—Click a radio button to choose its corresponding media format as the one that this encoding format should use.
- **Dimensions**—Choose an option from the list or choose **Custom** to use dimensions that the list does not contain.
- **Pixel Proportion**—Standard (square pixel) is the correct choice for most applications.
- **Audio Capture {On | Off}**—Enable or disable audio capture.
- **Windows Media Capture Profiles**—Choose an option to limit bandwidth usage.

Step 4 Click **Save**.

Managing Transcoding Jobs

Transcoding is a process of deriving digital media files that use one codec from digital media files that use a different codec; the source file is not changed or destroyed. Because codecs are typically lossy, you might notice that the fidelity of the output file is not as high as the fidelity of the source file.

Your encoders can transcode AVI and MPEG2 files into Windows Media files. You can use DMM-VPM to manage your transcoding jobs. We recommend that you schedule your transcoding jobs so that they do not run at the same time as any other encoder tasks, such as streaming a live event or saving a live stream to a file. A transcoding job might take as long as, or possibly longer than, the duration of the source file, depending on multiple factors that include which codecs you use.

Procedure

Step 1 Copy the source file to your encoder.

a. Plug a keyboard, mouse, and monitor into your encoder.

b. Add the file to a USB 2.0 hard drive or flash drive.

c. Use Windows Explorer to copy the source file from the USB drive to **D:\AVFiles\In**.

Step 2 Log in to DMM-VPM, and choose **Video Portal** from the untitled list at the top far-right of any page.

Step 3 Choose **Encoders > Transcoding**, and click **Add a New Transcoding Task**.

Step 4 Enter or choose the required values to define the transcoding job:

- **Transcoding Task Name**—Enter a unique and meaningful name.
- **Encoder Name**—Choose the encoder that will transcode the source file.
- **Start Date/Time**—Choose the date and time when the transcoding job should start.
- **Input Encoding Format**—Choose the media format that the source file uses (AVI or MPEG2).

- **Input Directory Path**—Choose **Input - Local Encoder Drive**.s
  - Edit—Modify the input directory path.
  - Clone—Copy the input directory path so that you can modify and add it to the list.
  - Add a Path—Add a new input directory path to the list.
- **Input File Name**—Enter the source filename. Do not include a path.
- **Output Encoding Format**—Choose a format that includes the word “transcode” in its title.
- **Output Directory Path**—Choose **Output - Local Encoder Drive**.
- **Output File Name**—Enter the output filename, which must use WMV as its extension. Do not include a path.

Step 5 Click **Save**.

Tip In the list, a color-coded icon next to the name of your transcoding job helps you to track its status. The icon is blue (scheduled *or* postponed); animated green (in progress); solid green (completed); or red (error). To learn more, mouse over the icon.

Step 6 To copy the output file from your encoder, do one of the following:

- If you plugged a keyboard, mouse, and monitor into your encoder, use Windows Explorer to copy the output file from **D:\AVFiles\Out** to the USB drive.
- Point your web browser to **ftp://**<*encoder_IP_address*>**/AVFiles/Out**, right-click the filename in the directory listing, and choose the option to download the file.

Workflows for Setting Up Live Events

This section includes the following workflow checklists to help you set up live events:

- Using Your DME 1000 or DME 2000 to Set Up a Live Event, page 4-52
- Modifying the Scheduled Times for DME Live Events, page 4-54
- Setting Up Live Events Using Third-Party Live Streams, page 4-55

Using Your DME 1000 or DME 2000 to Set Up a Live Event

Use the following checklist to guide you through the required tasks to use your DME 1000 or 2000 to set up live events..

✓	Task
❑	**1.** Add a live event to DMM-VPM, and enter the required values by completing the following steps: **a.** Choose **Video Portal** from the global navigation; then, click the **Video Portal** tab. **b.** Create or edit the program and the video that should include the live event. **c.** In the Add New Video Part page, enter the following values: •**Type of Video**—Choose **Live Event**; you must use Windows Media as the video format. •**Encoder**—From the list, choose the encoder to use, then do *one* of the following: If you previously configured default streaming settings for the relevant encoder and those default settings are appropriate for this event, click **Use Default Streaming Settings**. If any of the default settings are *not* appropriate for this event or if you have not configured default settings for the relevant encoder, click **Advanced Settings**, and then make choices and enter values to define the settings for this stream: *Encoding Format*—From the list, choose the method to use for encoding or transcoding the live stream. *DME 2000 Input Channel*—Click *or* . *Publish via Push*—Choose whether the encoder should push the live stream to a streaming server. *Publish via Pull*—Choose whether the streaming server should pull the live stream from the encoder. *Video Input*—From the list, choose either **Composite** or **SVideo**. *Audio Input*—Choose the option to use balanced or unbalanced audio in the live stream. *Video Input Standard*—From the list, choose the standard that is relevant to your country and the equipment that you use. *Store as a File*—Check the check box to enable automatic archiving or uncheck the check box to disable automatic archiving. *Storage Bookmark* and *File Name*—To later deploy the event as a VoD, choose from the list the location on the encoder to store the file, and enter the filename, specifying .wmv as the file type. •**Play Order in Video**—From the list, choose where in the video to show this video part. •**Release Date/Time** and **End of Life Date/Time**—Enter a date in the format shown or click Show Calendar to choose a date from a calendar. Then, choose the hour, the minute, and AM or PM. You must explicitly enter the End of Life Date/Time value. DMS does not obtain it automatically from the Release Date/Time value. If you do not enter a End of Life Date/Time value, your live event will not occur. •**Duration**—Indicates the duration of the live event, based on the start and stop times that you set.

✓	Task
❑	**2.** (Optional) In the Add New Video Part page, enter or choose these additional values: • **Preview Content File URL**—The location of a SWF file or *nonprogressive* JPEG file (100 pixels wide and 75 pixels high, or any proportionate multiple of those dimensions) that your Video Portal should show as the preview image for this video part. To choose and upload a local file, click **Upload new preview video file**. If you use a SWF file, we recommended that you program it to pause after 10 seconds and not loop. • {**Pre-Event** | **Post-Event**} **JPEG URL**—Upload the JPEG image to show {before | after} the live event. • **Enable Questions from the Audience**—Click {**On** | **Off**} to enable or disable support for questions. • **Slide Show**—Choose and upload the SWF file or ZIP archive of slides to show next to the video stream. The ZIP archive that you upload must contain JPEG files that you exported from PowerPoint (or similar software), whose sequence of filenames is numbered correctly to preserve their natural order. • **Preview Description**—A text description that your Video Portal shows to your audiences but truncates after 160 characters. If you do not enter a preview description, your Video Portal shows the first 160 characters from the video part description instead. • **Keywords**—Descriptive words to make this video part searchable on your Video Portal. Do no enter commas, semicolons, or other word separators; your Video Portal ignores them if you do. **Note** Cisco Video Portal cannot display progressive JPEG images.
❑	**3.** Save your configuration entries for the live event and show a program listing for it, as follows: **a.** Click **Save**. **b.** When you want your Video Portal to show a program listing for this live event, see the deployment instructions in the "Scheduling a New Deployment" section on page 4-39.

✓	Task
❑	**4.** Test the live stream and start the live event by completing the following steps: **a.** Approximately 30 minutes before the live event, click the **Encoders** tab. The Encoder Dashboard page appears. **b.** In the encoder selection tree, find the encoder that you will use for this live event, and then click **Expand Encoder** (▬) to see the *ad hoc streaming controls* for the encoder. **c.** Click **Encoder Setup**, enter the relevant values, click **Start Encoder**, and wait 10-to-20 seconds for it to start. The Start or Stop Encoder button starts or stops the VoD file creation, and you can start or stop the encoder multiple times to adjust cameras, test connections, and so on. ⚠ **Caution** Each time that you start or stop the encoder, you overwrite the existing file. To save the file, you must rename it before you start the encoder again. **d.** After an encoder setup message confirms that the encoder started, click **Close**. **e.** To open a preview window that shows the live stream from your encoder, click **View Live Video**. If you see the live stream, your streaming server is successfully streaming output from the encoder. **f.** When you are ready for the live event to start, click **Start Broadcast**. The Start Broadcast button makes the stream visible on the Video Portal and replaces the pre-event graphic. Approximately 5-to-20 seconds after you start the broadcast, the live stream should start for anyone who chose to see it. **g.** When you are ready to end the event, click **Stop Broadcast**, and then click **Stop Encoder**. The Stop Broadcast button replaces the video stream with the post-event graphic, and the Stop Encoder button stops the VoD file creation. **Tip** If you stop the broadcast accidentally or too soon, but the encoder is still running, click **Start Broadcast** to start showing the live stream again.
❑	**5.** (Optional) Publish a recorded copy of the event for delivery on demand to audience members who missed the live stream.

Related Topics

- Working with Programs, Videos and Video Parts, page 4-10
- "Generating and Importing the Slides to Be Synchronized" section on page 4-19
- Scheduling an On-Demand Deployment, page 4-44
- Modifying the Scheduled Times for DME Live Events, page 4-54

Modifying the Scheduled Times for DME Live Events

Use this procedure to modify the Release Date/Time on existing video parts for DME live events.

Before You Begin

Stop the encoder before you modify a pre-defined live event video part.

Procedure

Step 1 Choose **Video Portal > Programs**.

Step 2 Locate the Program and navigate to the Active Video Part for the live event.

Step 3 Click **Modify** next to the name of the video part.

Step 4 Change the Release Date/Time and click **Save**.

Step 5 Choose **Video Portal > Deployments** and schedule new deployment of the video part.

Step 6 Test the live stream 30 minutes before the event.

Related Topics

- Using Your DME 1000 or DME 2000 to Set Up a Live Event, page 4-52

Setting Up Live Events Using Third-Party Live Streams

Use the following checklist to guide you through the required tasks to use streams from a third-party encoder to set up live events.

✓	Task
❑	**1.** Create a pre-event listing to notify your audience about the upcoming event offering.
❑	**2.** Show the actual live offering. In the “Add New Video Part” page where you configure the metadata attributes for this video part, you must choose Non-DME Live Event because the Live Event option is reserved for use with the Cisco Digital Media Encoder 1000 and Digital Media Encoder 2000. Then, you must deploy this video part before the start at the event. For a Non-DME Live Event to be visible on the Video Portal, you must also click Start the Broadcast on the video part page. The offering should include information for end users to use during the live event, such as an agenda or downloadable materials. **Note** We recommend that you schedule the live event to start 10-to-15 minutes before the published start date and time. It is customary to offer live “hold” music for users who attend the event early to indicate that the event will start soon.
❑	**3.** (Optional) Create a post-event listing to notify your audience that they missed the event, and it is no longer available.
❑	**4.** (Optional) Publish a recorded copy of the event for delivery on demand to audience members who missed the live stream.

Related Topics

- Scheduling a Pre-Event Listing, page 4-42
- Scheduling a Live Event, page 4-42
- Scheduling a Post-Event Listing, page 4-43
- Scheduling an On-Demand Deployment, page 4-44

APPENDIX A

Using Video Portal Reports

Revised: March 12, 2009, OL-15762-02

Activation

Software feature modules for Cisco DMS are purchased and licensed separately. Features are hidden from all users until you purchase and install the required license to use them, and even then remain hidden from users whose privilege levels are low. To understand feature licenses and learn how to install them, see Managing Licenses for Features and Components of Cisco DMS, page 2-3. To learn how user access to features is restricted by the combination of licenses and user privilege levels, see Understanding User Roles in DMS-Admin, page 2-9. To learn which software feature modules are available for you to purchase, see http://www.cisco.com/go/dms.

Video Portal Reports software is preinstalled on your Video Portal appliance. It maintains a record for the number of page views, the number of video streams, the exact referrers, and the number of unique visitors per day.

- *Page view*—Any click in the Video Portal that causes the displayed information to change, but does not play a video stream or change a playlist.
- *Video stream*—Any click of the Play button in your Video Portal.
- *Unique visitor*—The total number of browser cookies in use on any particular day. Each browser that loads your Video Portal receives a browser cookie for tracking purposes. Any day when a browser connects to your Video Portal, it is a unique visitor on that day. Even if a browser reconnects multiple times in one day, your Video Portal counts it as only one unique visitor on that day.
- *Referrer*—The HTTP URL for whatever page was active in a browser immediately before the browser loaded your Video Portal.

Before You Begin

- Video Portal Reports uses *scalable vector graphics* in its charting. For browser requirements to use Video Portal Reports, see *Release Notes for Cisco Digital Media System 5.1.x* on Cisco.com.
- Records of VOD and live events are not included in reports until they are viewed in the Video Portal.

Procedure

Step 1 To see a report, point your browser to **http://**<*video_portal_IP_address*>**:8080/CvpMetrics/**.

Step 2 If user authentication is enabled and Video Portal Reports prompts you to log in, enter your login credentials and log in.

Tip If you are confident that you entered your login credentials correctly, but an error message tells you, "You entered an invalid username or password, or your password has expired. Please try again," we recommend that you contact the administrator for your LDAP server. It is possible that your Video Portal Reports user account is derived from an LDAP user account for which you are required to use a unique and dynamically generated password each time that you log in.

Step 3 Click the link that loads a particular type of report. In many cases, you can use the "Export" feature to export a table to a spreadsheet and save it in a file. In many graphs, you can mouse over a graph point to see an exact count.

Site-Wide Traffic	Any of these: • **Summary**—A line graph and table that cross-correlates page views, unique visitors, and video streams. – **Page Views**—A line graph and table that correlates dates with traffic levels. – **Unique Visitors**—A line graph and table that correlates dates with the number of unique visitors. – **Video Streams**—A line graph and table that correlates dates with the number of streams. • **Referrers**—A list of all HTTP URLs for the pages that were active in browsers immediately before they loaded your Video Portal, sorted by the number of browsers that each page delivered to you. Click a URL to see the corresponding page in your browser. • **User System Info**—A bar graph that shows how many visitors used particular browsers, particular operating systems, and particular plugins when they used your Video Portal.
Per-Video Traffic	Any of these: • **Video Streams**—A line graph and table that correlates dates with the number of streams. • **Page Views**—A line graph and table that correlates dates with traffic levels. • **More Info**—Shows how many Video Portal visitors clicked More Info. You can specify a particular video stream to filter the results.

Step 4 Enter or select the range of dates that the report should describe.

Step 5 Click **Go**.