



CHAPTER 3

Using DMM-DSM for Digital Signage

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Tip

Features in DMM-DSM are available to you if you purchased and installed the required license. For information about licensing, see [Chapter 2, “Using DMM-Admin to Install Licenses.”](#)

The simple, flexible, and centralized management and publishing features in DMM-DSM help you to deliver compelling digital media to your networked, on-premise DMP displays for many possible purposes, including:

- Marketing—Describe products and services directly to your in-store customers.
- Customer experience—Deliver entertainment and information to reduce perceived wait times.
- Messaging—Broadcast executive and internal communications in real time.
- Training—Deliver cost-effective, flexible training.
- Information—Deliver real-time schedules, news, and way-faring information where people need it.
- Advertising—Sell advertising time and space to third parties.
- Branding—Communicate about your brand consistently.

This chapter describes DMM-DSM features and options in these sections:

- [Managing and Grouping DMPs, page 3-1](#)
- [Creating and Categorizing Digital Signage Content, page 3-6](#)
- [Using Digital Signage Applications, page 3-10](#)
- [Delivering Saved Commands and Content Files to Your DMPs, page 3-30](#)
- [Using Administrative Options, page 3-36](#)
- [Common Scenarios for Using DMM-DSM, page 3-45](#)
- [Understanding and Using DMP Status Report Charts, page 3-46](#)

Managing and Grouping DMPs

You can organize your DMPs in groups and manage them collectively instead of managing only one DMP at a time. 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, but you can group

your DMPs 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:



Timesaver

DMM-DSM includes a feature to autoregister your DMPs, so that you do not have to register each DMP manually. Autoregistration finds every DMP in the subnets that you specify, configures those DMPs to know and trust the IP address for your DMM appliance, restarts the DMPs, and registers them in DMM-DSM for centralized management. To learn how to use autoregistration, see the “{Add New | Edit} DMP Group” row in [Table 3-1 on page 3-3](#).

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- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Site Manager > DMP Manager**.
- Step 3** Select the options or enter the values that meet your requirements.
- When you make selections anywhere on the DMP Manager page, it is updated automatically to show the options and features that are relevant to your selection. If you do not understand your options, see [Table 3-1 on page 3-3](#).
- Step 4 (Optional)** To configure a DMP to recognize the authority of your DMM appliance if it does not already recognize that authority, do the following:
- Open another browser but *do not* close the browser that you have been using to work in DMM-DSM.
 - To log in to DMPDM on the DMP, point your new browser to the DMP IP address and enter its administrator username and password at the login prompt.
 - In the Settings area, click **DMM**, then enter the required values:
 - DMM Host**—The IP address of your DMM appliance.
 - Timeout (Seconds)**—The maximum number of seconds that your DMP should wait for a response from your DMM appliance.
 - To confirm your DMPDM entries and to implement them until you change them or until you restart the DMP, click **Apply**.
 - To make your configuration changes permanent even after you reboot your DMP, click **Save Configuration**, then (after you see the Save Configuration page) click **Save**.
 - Close the browser that you used to work in DMPDM and return to the browser where you have been working in DMM-DSM.
- Step 5** Click **Reboot DMP**, then (after you see the Reboot DMM page) click **Reboot**.
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**Note**

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 you *do not* use proxies.

- We recommend that you use Web Cache Communication Protocol (WCCP) to reroute HTTP requests transparently, instead of using a proxy server. 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 1.0* on Cisco.com.
- To configure many DMPs to share one proxy server, even though we recommend that you do not, Click **System Tasks** in the list of all applications under the Applications tab, then click  (“Add New Application”). Enter a name and description, then select **Set** from the Request Type list and use this syntax in the Request text box: `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 select **Set** from the Request type list, then enter this Request string: `init.BROWSER_PROXY_IP=&init.BROWSER_PROXY_PORT=&init.BROWSER_PROXY=off&mib.save=1&mng.reboot=1`.

Table 3-1 Elements for Managing DMPs

Element	Description
DMP Groups	<p>A hierarchical tree (an <i>object selector</i>) of DMP groups, subgroups, and DMPs. From the object selector, you can add or remove group assignments for registered DMPs, create new groups, edit existing groups, and make selections for which DMPs the DMP List pane should describe.</p> <p>One group can contain another and the choices that you make for centralized management propagate from parent (DMP group), to child (DMP subgroup <i>or</i> 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 you can if you choose to.</p> <ul style="list-style-type: none"> •  (“Add New DMP Group”)—Shows the Add New DMP Group pane, where you enter a name and description for the group and where you have the option to define one or more ranges of IP addresses that DMM-DSM should use to autoregister DMPs. •  (“Edit DMP Group”)—Shows the Edit DMP Group pane. •  (“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.

Table 3-1 Elements for Managing DMPs (continued)

Element	Description
DMP List	<p>A list of all DMPs contained in (or under) the level that you clicked in the DMP Groups object selector. To see a list of every registered DMP, click the group that represents the root level of your digital signage network.</p> <p>Tip The interval between polling cycles is 2 minutes, so any newly added DMP might report temporarily that it is unavailable; if this happens to you, wait a few minutes, then check again.</p> <ul style="list-style-type: none"> • Actions—List from which you can select an action or task for DMM-DSM to perform on one or more DMPs that you selected. After you select the DMPs and the action, click Go. The specified action starts immediately. •  (“Add New DMP”)—Shows the Add New DMP pane, where you enter a name, IP address, MAC address, and description for the DMP. •  (“Edit DMP”)—Shows the Edit DMP pane. 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 edit the IP address record that DMM-DSM maintains for the DMP. •  (“Delete DMP”)—Deletes the DMP that you highlighted. •  (“Assign DMP to Group”)—Creates an association between at least one DMP and at least one group. Do the following: <ol style="list-style-type: none"> 1. Click . 2. In the DMP List pane, click one or more DMPs to select them. 3. In the object selector, click one or more DMP groups that the selected DMPs should join. 4. Click  again. •  (“Remove DMP from Group”)—Deletes the association between at least one DMP and at least one group. Do the following: <ol style="list-style-type: none"> 1. Click . 2. In the DMP List pane, click one or more DMPs to select them. 3. In the object selector, click one or more DMP groups from which to disassociate the selected DMPs. 4. Click  again. • The untitled table sorts DMP information into these columns: <ul style="list-style-type: none"> – 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 that receives instructions and data from DMM-DSM. – Version—The release number for the installed firmware version. – Description—The description that you entered.

Table 3-1 Elements for Managing DMPs (continued)

Element	Description
{Add New Edit} DMP Group	<p>You can create or edit a DMP group. You must specify the group name and description. In addition, you can populate the group automatically with all the DMPs in any CIDR address range that you specify.¹</p> <hr/> <p> Caution When you autodiscover a DMP, it restarts immediately even if it is already centrally managed by a different DMM appliance than the one that you are using, and even if it is showing digital signage content on a DMP display. Therefore, we recommend that you be careful to autodiscover only those DMPs that you are not already managing from any DMM appliance. Otherwise, you might temporarily disrupt content delivery in your digital signage network.</p> <hr/> <p>Options are as follows:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the group. • Description—A brief description of the group and its purpose. •  (“Add New Range”)—One or more ranges of IP addresses that DMM-DSM should use to autoregister DMPs. •  (“Delete a Range”)—Deletes the range that you highlighted. • Automatic Grouping Ranges—Shows a list of all the defined CIDR address ranges. Click a range to edit it. • Range (CIDR)—The text box where you edit one CIDR address range at a time. <p>Note For DMP autodiscovery to succeed, the routers, switches, and firewalls that pass packets between your DMM appliance and the specified CIDR address range must allow TCP ports 6666 and 7777 to send and receive packets.</p> <p>Autodiscovery operations follow this sequence:</p> <ol style="list-style-type: none"> 1. DMM-DSM scans every device in the specified CIDR address range, looking for devices where TCP ports 6666 and 7777 are both open. 2. After finding a device with those ports open, DMM-DSM learns the IP address for the device and compares that IP address to a list of registered DMPs. <p>Note A registered DMP might receive a new dynamic IP address from the DHCP server at its deployment site and the new IP address might be within the CIDR range that you specified for autodiscovery. In this case, DMM-DSM will not centrally manage the DMP until you edit the IP address record that DMM-DSM maintains for the DMP.</p> <ol style="list-style-type: none"> 3. When one of these IP addresses does not match any DMP that DMM-DSM has registered (even if it is registered with a different dynamic IP address or centrally managed by a different DMM appliance than the one that you are using), DMM-DSM assumes that the associated device is an unregistered DMP and transmits DMP-specific instructions to the device, including an instruction to restart. 4. If the device is a DMP, it restarts. 5. If the DMP is not centrally managed already by a different DMM appliance, it transmits information to DMM-DSM to enable centralized management of the DMP as an endpoint in your digital signage network.

Table 3-1 Elements for Managing DMPs (continued)

Element	Description
{Add New Edit} DMP	<p>Note We recommend that you never use manual registration for any medium- or large-scale deployment. To understand autoregistration, see the “{Add New Edit} DMP Group” row, elsewhere in this table.</p> <p>Make selections and enter required values to add one DMP manually:</p> <ul style="list-style-type: none"> • DMP Name—A unique and human-readable name for the DMP. • DMP IP—The public IP address that receives instructions and data from DMM-DSM. • DMP MAC—The MAC address that the DMP NIC uses. • DMP Description—Optional, brief description of the DMP, its deployment site, or anything that is relevant or meaningful to you.

1. You can schedule multiple DMP discovery operations to run simultaneously if they all search the same one subnet. If the DMP discovery 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 discovery operations failed to find any DMPs. If you must run DMP discovery tasks that search different subnets, schedule a 35-minute interval between the start time for one discovery and the start time for the next discovery. (In a very large network that contains thousands of DMPs, the required interval might be longer than 35 minutes.)

(Optional) To configure your DMPs to recognize the authority of your DMM appliance, do the following for each centrally managed DMP in your digital signage network:

- a. To log in to the embedded device management software, point your browser to the DMP IP address.
- b. At the login prompt, enter the username and the password that you configured for the DMP.
- c. In the Settings area, click **DMM**, then enter the required values:
 - **DMM Host**—The IP address of your DMM server appliance.
 - **Timeout (Seconds)**—The maximum number of seconds that your DMP should wait for a response from your DMM appliance.
- d. To confirm your entries and to implement them until you change them or until you restart the DMP, click **Apply**.
- e. To make your configuration changes permanent even after you reboot your DMP, click **Save Configuration**, then (after you see the Save Configuration page) click **Save**.

Click **Reboot DMP**, then (after you see the Reboot DMM page) click **Reboot**.

Creating and Categorizing Digital Signage Content

You can organize your content offerings in categories for simplified management. We recommend that you create categories for sets of characteristics that your media files have in common—such as their filetype, intended audience, or genre.

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- Step 1 Select **Digital Signage Module** from the untitled list at the top far-right of any page.
 - Step 2 Select **Content Manager > Media Library**.
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Table 3-2 Elements for Managing Content Files

Element	Description
Content Categories	<p>An unsorted, nonhierarchical list (an object selector) of all the content categories in your digital signage network media library. From the object selector, you can create new content categories, edit existing categories, delete categories, or click the one category that the Content List pane should describe. You can add almost any number of categories to your media library, but you cannot make any category subordinate to any other category.</p> <p>Note You can add content items at the root level of your media library, but we recommend that you do not. If you do, you must manage those content items one at a time, instead of managing them as a group.</p> <p>A content category contains content items.</p> <ul style="list-style-type: none"> •  (“Add New Content Category”)—Shows the Add New Content Category pane, where you enter a name and description for the category. •  (“Edit Content Category”)—Shows the Edit Content Category pane. •  (“Delete Content Category”)—Deletes the category that you highlighted. •  (“Opened Media Library”)—Shows all the content categories in your media library. •  (“Closed Media Library”)—Hides the list of content categories until you click to show them. •  (“Content Category”)—A content category that you created.

Table 3-2 Elements for Managing Content Files (continued)

Element	Description
Content List	<p>Note You cannot assign any content item to more than one category, and you cannot move any content item directly from one category to another. To move content between two categories, you must delete the content item entry in the first category, then create an equivalent entry in the second category.</p> <p>A list of all files contained in the category that you clicked in the Content Categories object selector.</p> <ul style="list-style-type: none"> •  (“Add New Content Item”)—Shows the Add New Content Item pane, where you enter the local pathname or HTTP URL that points to the file, specify the content type, enter a meaningful name (which can differ from the filename), enter a description, and specify who added the content item to the relevant content category. <p>Note Depending on the filesize and on network performance, a large file might take several minutes to import. If you navigate to any other page while DMM-DSM is importing a file, import fails.</p> <ul style="list-style-type: none"> •  (“Edit Content Item”)—Shows the Edit Content Item pane. •  (“Delete Content Item”)—Deletes the file that you highlighted. •  (“Batch Content Download”)—Shows the Batch Content Download pane, where you can enter a base HTTP URL for any directory a server, specify what filename pattern identifies the files to download, select the content type, and select how many levels to search <i>under</i> the specified base URL for files whose filenames match the specified pattern. • The untitled table sorts content item information into these columns: <ul style="list-style-type: none"> – Name—A unique and human-readable name that you entered. – Type—Says whether the content item is a file (F) or an HTTP URL (U). – Size—The filesize in bytes. – Path—The full pathname that points to the content file on the DMP. – Description—The description that you entered. – 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.
{Add New Edit} Content Category	<p>Make selections and enter required values.</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the content category. • Description—A brief description of the category and its purpose.

Table 3-2 Elements for Managing Content Files (continued)

Element	Description
{Add New Edit} Content	<p>Make selections and enter required values to add one content item, then click Submit.</p> <p>Note In this release, we do not support any use of JPEG files.</p> <ul style="list-style-type: none"> • Source—The full local pathname or remote HTTP URL of the content item. Do one of the following: <ul style="list-style-type: none"> – Click File, then click Browse or enter the full local pathname. – Click URL, enter the URL, then select or deselect the Download URL check box to choose whether to download a local copy of the file or use the version of it that is stored remotely. • Content Type—Select the content type that best applies to the content item: <ul style="list-style-type: none"> – DMP Firmware Image—A firmware image for the DMP. – Flash—An Adobe (Macromedia) Flash 6 content file. The filename extension must be SWF. – MPEG-1/2—A content file in either MPEG-1 or MPEG-2 format. – MPEG-4—A content file in MPEG-4 format. <p>Before you add any MPEG file, confirm that its filesize is not more than 1.9 GB, which is the maximum size for any file that you include in a zoning application.</p> <p>For purposes of stage-one failover, the combined size of all files cannot exceed 900 MB. To understand failover, see the “Understanding Content Substitution (Failover)” topic in <i>User Guide for Cisco Digital Media Player Device Manager 1.0</i> on Cisco.com.</p> <p>Note Our support for MPEG-4 requires that you use the MPEG-4 Part 2 codec and that you multiplex audio and video in an MPEG-2 transport stream.</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the content item. • Description—Optional, brief description of the DMP, its deployment site, or anything that is relevant or meaningful to you. • Creator—Your name or the name of the person who added the content item. <p>Note After you start to import a content item, 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.</p>

Table 3-2 Elements for Managing Content Files (continued)

Element	Description
Batch Content Download	<p>Make selections and enter required values to add multiple content items, then click Submit. The amount of time that the 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 filesize of all files that you transfer.</p> <p>Note In this release, we do not support the use of JPEG files.</p> <ul style="list-style-type: none"> • 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. • Pattern—The 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. <p>Note Do not enter the filename pattern to use any unsupported filetype. For example, we do not support any use of JPEG files in this release.</p> <ul style="list-style-type: none"> • Content Type—Select the content type that best applies to files in the batch download: <ul style="list-style-type: none"> – DMP FS Image—Firmware image files for DMPs. – Flash—Adobe (Macromedia) Flash 6 content files. The filename extension must be SWF. – MPEG-1/2—Content files in either MPEG-1 or MPEG-2 format. – MPEG-4—Content files in MPEG-4 format. • Levels—The number of levels below the specified base URL to search for (and download) files with filenames that match the specified pattern.

Using Digital Signage Applications

Topics in this section tell you how to use features under the Applications tab:

- [Creating and Organizing Digital Signage Playlists, page 3-11](#)
- [Working with Flash Applications, page 3-14](#)
- [Working with Screen Zones, page 3-16](#)
- [Using Other DMM-DSM Applications, page 3-19](#)
- [Supported Fonts, page 3-28](#)

Creating and Organizing Digital Signage Playlists

You can create and organize playlists to deliver MPEG files to your DMPs (as one part of a zoning application) and you can edit a playlist after you create it. A playlist contains MPEG files from one or more content categories and shows the MPEG files in sequence on your DMP displays.



Your screen resolution settings might obscure part of the DMM-DSM user interface for managing playlists and you might notice that horizontal and vertical scrolling are required even when your browser is maximized. We recommend in this case that you use the settings for a higher screen resolution. If you prefer not to change your screen resolution settings, you can press F11 in your browser at any time to use your browser in full-screen mode. To exit full-screen mode, press F11 again.

Before You Begin

- You must add MPEG files to your media library before you can organize them in a playlist and deliver that playlist to your DMPs as part of a zoning application. See the “[{Add New | Edit} Content](#)” row in [Table 3-2 on page 3-7](#).
- You must add a DMP to DMM-DSM before you can deploy any playlists to it, and you must organize your DMPs into groups before you can deploy any playlist to multiple DMPs simultaneously. The DMP Groups list does not show any DMPs until you add at least one. See [Managing and Grouping DMPs, page 3-1](#).
- You must add an external publishing server to DMM-DSM before you can deploy any playlists to it. The DMP Groups list does not show any external publishing servers until you add at least one. See [Configuring DMM-DSM to Use External Publishing Servers, page 3-43](#).

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- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Applications > Full Applications List > Playlists**, then do one of the following:
- To create a new playlist, click .
 - To edit a playlist that you created previously, click its name to highlight it in the table, then click .
- The right pane is refreshed. Depending on the icon that you clicked, the pane is named either “Create New Playlist” or “Change Playlist.”
- Step 3** Enter the values or select the options that meet your requirements and add, remove, or rearrange MPEG files in the playlist. If you do not understand the options, see [Table 3-3 on page 3-13](#).
- Step 4** To save the playlist that you configured, click **Submit**.

- Step 5 (Optional)** Deploy the playlist to one or more DMPs or to one or more external publishing servers:
- Create a zoning application and assign this playlist to the video zone. See [Working with Screen Zones, page 3-16](#).
 - Click the **Publisher** tab.
 - Decide whether to deploy the playlist immediately or at a later time, then do one of the following. (Alternatively, see the detailed procedures in [Delivering Commands or Content Files Immediately, page 3-30](#), and [Scheduling Future Deliveries of Commands or Content Files, page 3-31](#).)

To Deploy the Playlist at Any Future Time:		To Deploy the Playlist Immediately:
Step 1	Click Scheduler .	Click Immediate .
Step 2	From the Applications list, select a zoning application that contains the playlist.	In the DMP Groups object selector, click the name of a DMP group to see its member DMPs in the DMP List table. Note We do not support immediate publishing to external publishing servers. You must schedule all publishing jobs that use external servers. See the column to the right of this column.
Step 3	From the DMP Groups list, select the DMP group that should show the playlist. Alternatively, you can select an external publishing server from the DMP Groups list. Note If you select an external publishing server and if you select a playlist that contains MPEG files to retrieve from an HTTP URL, the displayed value for that URL does not change in the Selected Content table, even though you might think that it should change. See the “ Selected Content ” row in Table 3-3 on page 3-13 .	In the DMP List table, select the check box for each DMP that should show MPEG files from the playlist.
Step 4	From the How Often list, select an option to control the interval between showings.	From the Actions list, select the name of the zoning application that contains the playlist.
Step 5	Click Select Target Date , then select the calendar date for the first showing.	Click Go .
Step 6	In the From area, click  , then select the hour and minute to start showing content items in the playlist.	
Step 7	In the To area, click  , then select the calendar date, hour, and minute to stop showing content items in the playlist.	
Step 8	Click Save , then click Publish .	

Table 3-3 Elements for Managing MPEG Playlists

Element	Description
Name	A unique and human-readable name for the MPEG playlist. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM.
Description	A brief description of the MPEG playlist and its purpose.
Play	Select whether the MPEG playlist should play repeatedly from start to finish: <ul style="list-style-type: none"> • In Loop—The playlist does not stop until you stop it. After it completes a cycle, it starts again automatically. • Once—The playlist stops after one cycle that shows every content item once.
Content Categories	An object selector that lists all the content categories in your media library. From the object selector, click the one category that the Available Content table should describe. To learn more about content categories, see Creating and Categorizing Digital Signage Content, page 3-6 . <ul style="list-style-type: none"> •  (“<i>Opened Media Library</i>”)—Shows all the content categories in your media library. •  (“<i>Closed Media Library</i>”)—Hides the list of content categories until you click to show them. •  (“<i>Content Category</i>”)—A content category that you created.
Available Content	Describes every available MPEG file in the content category that you clicked. Click any other content category to see different MPEG files in the Available Content table. One table row describes one MPEG file. An MPEG file is considered available if it is not already included in the playlist that you are creating or editing. You can move files from the Available Content table to the Selected Content table. To select a file, click it. The elements and options are: <ul style="list-style-type: none"> •  (“<i>Add Selected Items</i>”) Moves the selected MPEG file to the Selected Content table, so that it will be part of the playlist. • Name—A unique and human-readable name that you entered. • Type—Says whether the MPEG file (F) is stored locally or should be retrieved from an HTTP URL (U). • Type—The file format. • Size—The filesize in bytes. • Path—Says which content category contains the described file. • Description—The description that you entered. • 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—Tells you the current status of the file.

Table 3-3 Elements for Managing MPEG Playlists (continued)

Element	Description
Selected Content	<p>Tip If the screen resolution is low on your PC, you might notice that the Selected Content area is so small in the DMM-DSM user interface that it is difficult to use. To work around this problem temporarily, even if you are unable to use the settings for a higher resolution, press F11.</p> <p>Describes every MPEG file in the playlist that you are creating or editing. The elements and options are:</p> <ul style="list-style-type: none"> •  (“Move Selected Item Up”)—Reorders the list so that the highlighted MPEG file moves up one row, exchanging places with the file that was above it. •  (“Move Selected Item Down”)—Reorders the list so that the highlighted MPEG file moves down one row, exchanging places with the file that was below it. •  (“Edit Duration for Selected Item”)—Makes the Pic Show Time value editable, so that you can change the number of seconds that your DMP displays show the highlighted MPEG file. •  (“Delete Selected Item”)—Moves the highlighted MPEG file from the playlist to the Available Content table. •  (“Zoom In”)—Shows only the playlist, hiding the Available Content table. •  (“Zoom Out”)—Shows the playlist and the Available Content table simultaneously. • Name—The name that you entered for the MPEG file. • Pic Show Time—The number of seconds that the MPEG file will be visible when you show it on a DMP display. To enter or change the number of seconds, click . If you do not specify a duration for playback, the file plays to completion. • Type—Says whether the MPEG file is stored locally or should be retrieved from an HTTP URL. • Path—Says which content category contains the described MPEG file or shows the HTTP URL. <p>Note If you publish the playlist to an external server, nothing changes about the value that the Path column shows for an MPEG file, even though you might expect it to change so that it shows the path on the external server. The value is unchanged because you might publish the playlist more than once or to more than one server and because the original file is not deleted.</p> <p>If the value in the Path column is an HTTP URL that contains one or more named subdirectories, and you publish the playlist to an external (FTP) server, DMM-DSM automatically creates subdirectories with exactly those same names on that external server. It is not necessary for you to recreate the subdirectories manually.</p>

Working with Flash Applications

You can show a full-screen Adobe (Macromedia) Flash 6 content file on the DMP displays in a DMP group that you specify or throughout your entire digital signage network. Alternatively, you can show a Flash 6 file at full-screen on just one DMP display. The filename extension must be SWF.

Before You Begin

You must add the Flash content file to your media library before you can deliver it to your DMPs. See the “{Add New | Edit} Content” row in [Table 3-2 on page 3-7](#).

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Applications > Flash**, then do one of the following in the left pane:
- To create a new Flash application, click .
 - To edit a Flash application that you created previously, click its name.
 - To delete a Flash application, click its name, click , then click **Submit** to confirm the deletion.
- The right pane is refreshed. Depending on the icon that you clicked, the pane is named either “Add New Full Screen Flash Application” or “Change Full Screen Flash Application.”
- Step 3** Enter a name and a description for the application.
- Step 4** Select a content category in the object selector.
- Step 5** To select or change the SWF (Flash 6) file that this Flash application uses, click anywhere in the corresponding row to select one SWF file.
- Step 6** Click **Submit**.
-

Table 3-4 Elements for Working with a Flash Application

Element	Description
Name	A unique and human-readable name for the Flash application. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM.
Description	A brief description of the Flash application and its purpose.
Content Categories	<p>An object selector that lists all the content categories in your media library. From the object selector, click the one category that the Available Content table should describe. To learn more about content categories, see Creating and Categorizing Digital Signage Content, page 3-6.</p> <ul style="list-style-type: none"> •  (“<i>Opened Media Library</i>”)—Shows all the content categories in your media library. •  (“<i>Closed Media Library</i>”)—Hides the list of content categories until you click to show them. •  (“<i>Content Category</i>”)—A content category that you created.
Available Content	<p>Describes every available content item in the content category that you clicked. Click any other content category to see different content items in the Available Content table.</p> <p>One table row describes one file. To select a file, click anywhere in the corresponding row.</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name that you entered. • Source—Says whether the content item is a file (F) or an HTTP URL (U). • Type—The content type, which should be Flash. • Size—The filesize in bytes. • Path—Says which content category contains the described content item. • Description—The description that you entered. • 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—Tells you the current status of the content element.

Working with Screen Zones

You can show several types of content simultaneously on a DMP display after you divide its screen virtually into distinct areas called *screen zones*. The predesigned zoning template that you select in a zoning application determines whether there are two, three, or four zones, and you can also select the actual media files and messages to show in each zone.

After you create or edit a screen zone application, you can publish it to your DMPs, each of which restarts automatically.

Before You Begin

- You must already have created and saved the content files that you will show. See [Creating and Categorizing Digital Signage Content](#), page 3-6.
- You must already have created at least one playlist, so that you can make a selection for the video zone. See [Creating and Organizing Digital Signage Playlists](#), page 3-11.
- Confirm that none of the individual content files that you will show has a filesize any larger than 1.9 GB. If any file has a larger filesize, the screen zone that should show the file shows nothing and your DMP device logs describe many errors.
- You must already have created the DMP group whose member DMPs should show the content. See [Managing and Grouping DMPs](#), page 3-1.



Caution

Before you publish a new or updated zoning application, you must run the “Stop All Applications” system task on each affected DMP. To do so, click the **Publisher** tab, select the DMP group that will use the zoning application, select **Stop All Applications** from the Actions list, then click **Go**. See the “System Tasks” row in [Table 3-6 on page 3-20](#).

Step 1 Select **Digital Signage Module** from the untitled list at the top far-right of any page.

Step 2 Select **Applications > Zoning**, then select the options that meet your requirements. If you do not understand your options, see [Table 3-5](#).

Because content files from a zoning application serve as the basis for stage-one failover on DMPs—see the “Understanding Content Substitution (Failover)” topic in *User Guide for Cisco Digital Media Player Device Manager 1.0* on Cisco.com—we recommend that the combined size of all content files should not exceed 900 MB for a zoning application. If the combined filesize is more than 900 MB, only stage-two failover is available.

Step 3 Click **Submit**.

Step 4 (**Optional**) Publish the zoning application. See [Delivering Saved Commands and Content Files to Your DMPs](#), page 3-30.



Note

- After you publish a zoning application, DMM-DSM automatically creates a Go to URL application. The name by default for the Go to URL application is **failover**—`<name_of_zoning_application>`. If your DMPs should use content files from the zoning application as their files to show during stage-one failover, you must publish the corresponding Go to URL application.
- After you delete a zoning application, you must also delete its corresponding Go to URL application.

Table 3-5 Elements for Managing Screen Zones

Element	Description
Name	A unique and human-readable name for this zoning application. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM.
Description	A brief description of this zoning application and its purpose. The description is optional.
Background Color	The hexadecimal number (<i>hex triplet</i>) that describes the background color. Enter a number manually or click Pick to open a color picker. In the color picker, you can select a color for which DMM-DSM automatically enters the correct hexadecimal number.
Text Color	The hexadecimal number (<i>hex triplet</i>) that describes the text color. Enter a number manually or click Pick to open a color picker. In the color picker, you can select a color for which DMM-DSM automatically enters the correct hexadecimal number. The 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 zoning application to show text on a DMP display.
Template Type	<p>Defines virtual subdivisions (zones) of the screen on a DMP display. Each zone shows one content item at a time. DMPs show zones simultaneously and the actual number of zones is determined by the template that you select. The templates are:</p> <div style="display: flex; align-items: flex-start; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 100px; height: 50px; margin-right: 10px; position: relative;"> <div style="border: 1px solid red; width: 100%; height: 10px; position: absolute; top: 0;"></div> </div> <div> <p>Logo-Video Subdivides the screen into two zones.</p> </div> </div> <div style="display: flex; align-items: flex-start; margin-bottom: 10px;"> <div style="border: 1px solid black; width: 100px; height: 50px; margin-right: 10px; position: relative;"> <div style="border: 1px solid red; width: 100%; height: 10px; position: absolute; top: 0;"></div> <div style="border-left: 1px solid black; width: 50%; height: 100%; position: absolute; left: 0;"></div> </div> <div> <p>Logo-Video-Flash Subdivides the screen into three zones.</p> </div> </div> <div style="display: flex; align-items: flex-start;"> <div style="border: 1px solid black; width: 100px; height: 50px; margin-right: 10px; position: relative;"> <div style="border: 1px solid red; width: 100%; height: 10px; position: absolute; top: 0;"></div> <div style="border-left: 1px solid black; width: 50%; height: 100%; position: absolute; left: 0;"></div> <div style="border: 1px solid black; width: 100%; height: 10px; position: absolute; bottom: 0;"></div> </div> <div> <p>Logo-Video-Flash-Ticker Subdivides the screen into four zones.</p> </div> </div> <p>Click a zone in the zoning map to see options for the type of zone that you clicked. If you click:</p> <ul style="list-style-type: none"> • The <i>Logo</i> zone—The page is refreshed and shows both the Content Categories object selector and the Available Content table. Select a category from the object selector to see descriptions of its content items in the table. Click a content item in the table to select that item as the one to show in the Logo zone. The supported filetype is SWF (Flash 6). • The <i>Video</i> zone—The page is refreshed and lists all of the playlists that you have created. Click a playlist to select it as the one to show in the Video zone. • The <i>Flash</i> zone—The page is refreshed and lists all of the Flash Applications that you have created. Click a Flash Application to select it as the one to show in the Flash zone. Flash 6 content files must use the filename extension SWF. • The <i>Ticker</i> zone—The page is refreshed and shows a large text box where you can enter the text to show in the ticker.

Table 3-5 Elements for Managing Screen Zones (continued)

Element	Description
Content Categories	<p>Tip If the screen resolution is low on your PC, you might notice that the Content Categories area is so small in the DMM-DSM user interface that it is difficult to use. To work around this problem temporarily, even if you are unable to use the settings for a higher resolution, press F11.</p> <p>An object selector that lists all the content categories in your media library. From the object selector, click the one category that the Available Content table should describe.</p> <ul style="list-style-type: none"> •  (“<i>Opened Media Library</i>”)—Shows all the content categories in your media library. •  (“<i>Closed Media Library</i>”)—Hides the list of content categories until you click to show them. •  (“<i>Content Category</i>”)—A content category that you created. <p>Tip To learn more about content categories, see Creating and Categorizing Digital Signage Content, page 3-6.</p>
Available Content	<p>A table in which you can click any row to select one content item in the specified content category. The table sorts content item information into these columns:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name that you entered. • Type—Says whether the content item is a file (F) or an HTTP URL (U). • Size—The filesize in bytes. • Path—The full pathname that points to the content file on the DMP. <p>Before you add any MPEG file, confirm that its filesize is not more than 1.9 GB, which is the maximum size for any file that you include in a zoning application. For purposes of stage-one failover, the combined size of all files cannot exceed 900 MB. To understand failover, see the “Understanding Content Substitution (Failover)” topic in <i>User Guide for Cisco Digital Media Player Device Manager 1.0</i> on Cisco.com.</p> <ul style="list-style-type: none"> • 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.

Using Other DMM-DSM Applications

Many applications and options are available to you in DMM-DSM. Your expectations and goals for your digital signage network determine which applications and options are relevant to you at any particular time or for any particular purpose.

Step 1 Select **Digital Signage Module** from the untitled list at the top far-right of any page.

Step 2 Select **Applications > Full Applications List**, then click an application name in the **Application Types** list, as follows:

Application Type	Purpose
DMP Discovery	Discover the DMPs in a network range that you specify and add those DMPs to DMM-DSM for centralized management.
DMP Video/Audio Settings	Adjust the audio and video signals that DMPs send to their attached DMP displays.
Go to URL	Load content from a web server into the embedded DMP browser.
Flash	Load content from a SWF (Flash 6) file into the embedded DMP browser.
Multicasts	Receive and show a multicast video stream.
Playlists	Create lists of content to show in a particular sequence.
Publishing	Deliver to particular DMPs or to external (FTP) publishing servers the commands and settings from applications that you select or configure under the Applications tab.
Startup URL	Configure DMPs to load a particular HTTP URL when you start or restart them.
System Tasks:	Select an administrative command for delivery to DMPs:
• <i>Default</i>	Restore factory default settings to DMPs.
• <i>FTP {Off On}</i>	Enable or disable the FTP service on DMPs.
• <i>Reboot</i>	Restart DMPs.
• <i>Save Settings</i>	Save the settings that are active on DMPs.
• <i>Save Settings and Reboot</i>	Save the settings that are active on DMPs, then restart them.
• <i>Show {Browser Video}</i>	Show one DMP content plane and hide the other.
• <i>Status</i>	See the DMP status message in real time.
• <i>Stop All Applications</i>	Stop every application that DMPs are running.
• <i>Transparency 50%</i>	Set the browser plane to be partially transparent and show the video plane through it.
• <i>Upgrade Status</i>	See the DMP upgrade status message in real time.
• <i>Version</i>	See the installed DMP firmware version number.
Upgrade DMP	Select the firmware upgrades and patches to deliver to DMPs.
Zoning	Configure screen zones to show content from particular files and playlists.

If you do not understand the options for an application, see [Table 3-6 on page 3-20](#).

- Step 3 (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, deliver to DMPs, or delete.
- Step 4** 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 3](#), click  (“Edit Application”).
 - To delete the operation that you selected in [Step 3](#), click  (“Delete Application”).
- Step 5** 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 6** To save your selections, click **Submit**. Otherwise, click **Cancel** to discard your selections.
- Step 7** To deliver to your DMPs the commands that you saved in [Step 6](#), see [Delivering Saved Commands and Content Files to Your DMPs, page 3-30](#).

Table 3-6 Understanding and Using Applications

Application Name	Description and Options
DMP Discovery	<p>Discover the DMPs in a network range that you specify and add those DMPs to DMM-DSM for centralized management. The elements and options are:</p> <ul style="list-style-type: none"> Name—A unique and human-readable name for the autodiscovery IP address range. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. Description—A brief description. The description is optional. Discovery IP Range—The CIDR syntax to describe one or multiple ranges of IP addresses. <p>To learn about other autodiscovery options for the DMPs in your digital signage network, see the “{Add New Edit} DMP” row in Table 3-1 on page 3-3.</p> <p>Note You can schedule multiple DMP Discovery operations to run simultaneously if they all search the same one subnet. If the DMP Discovery 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 discovery operations failed to find any DMPs. If you must run DMP Discovery tasks that search different subnets, schedule a 35-minute interval between the start time for one discovery and the start time for the next discovery.</p>

Table 3-6 Understanding and Using Applications (continued)

Application Name	Description and Options
DMP Video/Audio Settings	<p>Adjust the audio and video signals that DMPs send to their attached DMP displays. The elements and options are:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the settings that you configure. For example, you might adjust the brightness setting to accommodate a locale where the lighting is dim, 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 as the name for any other application that you created in DMM-DSM. • 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 right audio channel. Volume can range from 0 to 100, where 0 is silent. The default is 50.
Go to URL	<p>Load content from a web server into the embedded DMP browser. The elements and options are:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the website that you will show. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. • 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 3-6 Understanding and Using Applications (continued)

Application Name	Description and Options
Flash	<p>Load a SWF (Flash 6) file into the embedded DMP browser and change the DMP startup URL so that the Flash application loads quickly after a DMP restarts or recovers from problems with its network connection. The elements and options are:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the SWF (Flash 6) content file, which you can show full-screen on your DMP displays. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. • Description—A brief description. The description is optional. • Content Categories—An object selector that lists all the content categories in your media library. From the object selector, click the one category that the Available Content table should describe. To learn more about content categories, see Creating and Categorizing Digital Signage Content, page 3-6. <ul style="list-style-type: none"> –  (“<i>Opened Media Library</i>”)—Shows all the content categories in your media library. –  (“<i>Closed Media Library</i>”)—Hides the list of content categories until you click to show them. –  (“<i>Content Category</i>”)—A content category that you created. • Available Content—A table in which you can click any row to select one content item in the specified content category. The table sorts content item information into these columns: <ul style="list-style-type: none"> – Name—A unique and human-readable name that you entered. – Type—Says whether the content item is a file (F) or an HTTP URL (U). – Size—The filesize in bytes. – Path—The full pathname that points to the content 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 3-6 Understanding and Using Applications (continued)

Application Name	Description and Options
Multicasts	<p>Causes DMPs to receive and show the multicast video stream from a server that you specify and changes the DMP startup URL so that the multicast application loads quickly after a DMP restarts or recovers from problems with its network connection. The elements and options are:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the multicast stream or its server. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. • Description—A brief description. The description is optional. • Stream Type—Shows the type of stream. The supported stream type is UDP. <p>Note DMM-DSM cannot show MPEG-1 files in a UDP multicast stream.</p> <ul style="list-style-type: none"> • IP—The IP address of the multicast server. You must enter an IP address. • Port—The logical port number through which the multicast server transmits the stream. You must enter the port number.
Playlists	<p>Describes the sequence of MPEG files that a zoning application should play in its video zone and changes the DMP startup URL so that the playlist application loads quickly after a DMP restarts or recovers from problems with its network connection. See Creating and Organizing Digital Signage Playlists, page 3-11.</p>

Table 3-6 Understanding and Using Applications (continued)

Application Name	Description and Options
Publishing	<div data-bbox="402 317 446 359"></div> <p data-bbox="370 363 1471 489">Caution Before you use a Publishing application to deploy a new or updated zoning template to any of your DMPs, you <i>must first</i> run the “Stop All Applications” system task on each affected DMP. To do so, click the Publisher tab, select the DMP group that will use the zoning template, select Stop All Applications from the Actions list, then click Go.</p> <hr/> <p data-bbox="370 527 1471 619">Deliver to particular DMPs the commands and settings from applications that you select or configure under the Applications tab. See Delivering Saved Commands and Content Files to Your DMPs, page 3-30. The elements and options are:</p> <ul data-bbox="383 636 1471 1094" style="list-style-type: none"> • Name—A unique and human-readable name for this publishing job. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. • Description—A brief description. The description is optional. • Application Types—The list of application categories. Click a category to see the applications in it. • Available Applications—Applications in the category that you clicked. Click anywhere in a row to select the corresponding application. <ul data-bbox="431 940 1471 1094" style="list-style-type: none"> –  (“<i>Select Applications</i>”)—Moves from the Available Applications table to the Selected Applications table the applications that you selected. – Name—The unique and human-readable name that identifies a particular application. – Description—A brief description. The description is optional. <p data-bbox="370 1108 1471 1171">Tip Although it is technically possible, it is not useful to publish a system task application, a go to URL application, or a startup URL application.</p> <ul data-bbox="383 1199 1471 1677" style="list-style-type: none"> • Selected Applications—Applications that you selected from the Available Applications table, to include them in the Publishing operation that you are configuring. Click an application to select it, so that you can use <ul data-bbox="431 1304 1471 1677" style="list-style-type: none"> –  (“<i>Move Selected Item Up</i>”)—Reorders the list so that the highlighted item moves up one row, exchanging places with the item that was above it. –  (“<i>Move Selected Item Down</i>”)—Reorders the list so that the highlighted item moves down one row, exchanging places with the item that was below it. –  (“<i>Delete Selected Item</i>”)—Moves from the Selected Applications table to the Available Applications table the applications that you selected. –  (“<i>Zoom In</i>”)—Shows only the Selected Applications table, hiding the Available Applications table. –  (“<i>Zoom Out</i>”)—Shows the Selected Applications table and the Available Applications table simultaneously.

Table 3-6 Understanding and Using Applications (continued)

Application Name	Description and Options
Startup URL	<p>Causes DMPs to load and show content that you specify, immediately after every restart. The elements and options are:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the content at the specified URL. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. • 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—or playlist—that a DMP should load automatically and show immediately after every restart. If your entry points to a playlist, the “playlist” is an ASCII text file as defined in Table 1-1 on page 1-1; it is <i>not</i> a “playlist” as described in the “Creating and Organizing Digital Signage Playlists” section on page 3-11. The supported transport protocols and URL types are: <ul style="list-style-type: none"> – http://<ip_address>/<path_and_filename> – udp:<ip_address_of_multicast_server>/<port_number> – playlist=http://<ip_address>/<path_and_filename> – playlist=file:///<path_and_filename> <p>Note If you enter a Video URL that points to an audio file instead of a video file, a DMP that receives this instruction will play the audio but show only a black screen on its DMP display.</p> <ul style="list-style-type: none"> • Browser URL—The HTTP URL of any document that the embedded browser on a DMP should load automatically and show immediately after each restart. 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—Select the check box if a DMP should restart immediately when it receives this instruction. Deselect the check box if no immediate restart is required.

Table 3-6 Understanding and Using Applications (continued)

Application Name	Description and Options
System Tasks	<p>Predefined system commands that you can send to a DMP. When you create or edit a system task, these are the elements:</p> <ul style="list-style-type: none"> • Name—A unique and human-readable name for the system task. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. • Description—A brief description. The description is optional. • Request Type—A list in which the options are <i>Get</i> and <i>Set</i>, in the sense that you can set new values on a DMP or instruct DMM-DSM to get information from a DMP. • Request—The command string. <p>These system tasks tell you about a DMP:</p> <ul style="list-style-type: none"> • Status—See the current operational status message in real time. • Version—See the installed firmware version number. • Upgrade Status—See whether an upgrade is in progress or see information about the most recent upgrade. <p>These system tasks show or hide content on a DMP display:</p> <ul style="list-style-type: none"> • Show Browser—Show only the HTML content plane. • Show Video—Show only the video plane. • Transparency 50%—Set the HTML plane to be partially transparent and show the video content plane through it. <p>These system tasks help you to limit administrative access to a DMP:</p> <ul style="list-style-type: none"> • FTP Off—Stop the FTP service. • FTP On—Start the FTP service. <p>These system tasks help you to administer a DMP:</p> <hr/> <p> Caution If you restore factory-default settings on a DMP, you must set it up again, exactly as you would set up a brand-new DMP. (To learn how to set up a DMP, see <i>Quick Start Guide for Cisco Digital Media Player 4300G</i> on Cisco.com.) If you restart a DMP, you will disrupt whatever it is doing at that time. If you save any configuration settings mistakenly, you must reenter the correct settings manually.</p> <hr/> <ul style="list-style-type: none"> • Default—Restore factory-default settings. • Reboot—Restart now. • Save Settings—Save the current definitions for all configuration settings. • Save Settings and Reboot—Save the current definitions for all configuration settings, then restart. • Stop All Applications—Stop any applications that the DMP is running.

Table 3-6 Understanding and Using Applications (continued)

Application Name	Description and Options
Upgrade DMP	<div data-bbox="444 317 483 359"></div> <p data-bbox="407 365 1524 457">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 Publisher tab, select the DMP group that you will upgrade, select Stop All Applications from the Actions list, then click Go.</p> <hr/> <p data-bbox="407 495 1524 554">Send a content item (of the “DMP FS Image” content type) from your media library to a DMP and send commands to install the new firmware image. The elements and options are:</p> <ul data-bbox="407 573 1524 1585" style="list-style-type: none"> <li data-bbox="407 573 1524 665">• Name—A unique and human-readable name for the upgrade application. You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM. <li data-bbox="407 680 1524 709">• Description—A brief description. The description is optional. <li data-bbox="407 724 1524 848">• Content Categories—An object selector that lists all the content categories in your media library. From the object selector, click the one category that the Available Content table should describe. To learn more about content categories, see Creating and Categorizing Digital Signage Content, page 3-6. <ul data-bbox="467 867 1524 1016" style="list-style-type: none"> <li data-bbox="467 867 1524 896">–  (“<i>Opened Media Library</i>”)—Shows all the content categories in your media library. <li data-bbox="467 911 1524 970">–  (“<i>Closed Media Library</i>”)—Hides the list of content categories until you click to show them. <li data-bbox="467 984 1524 1014">–  (“<i>Content Category</i>”)—A content category that you created. <li data-bbox="407 1031 1524 1585">• Available Content—A table in which you can click any row to select one content item in the specified content category. The table sorts content item information into these columns: <ul data-bbox="467 1108 1524 1585" style="list-style-type: none"> <li data-bbox="467 1108 1524 1138">– Name—A unique and human-readable name that you entered. <li data-bbox="467 1152 1524 1182">– Type—Says whether the content item is a file (F) or an HTTP URL (U). <li data-bbox="467 1197 1524 1226">– Size—The filesize in bytes. <li data-bbox="467 1241 1524 1270">– Path—The full pathname that points to the content file on the DMP. <li data-bbox="467 1285 1524 1314">– Description—A brief description. The description is optional. <li data-bbox="467 1329 1524 1388">– Upload Started—Time stamp (in the format YYYY-MM-DD hh:mm:ss:ms) that says when you started to upload the file. <li data-bbox="467 1402 1524 1461">– Upload Finished—Time stamp (in the format YYYY-MM-DD hh:mm:ss:ms) that says when the file was completely uploaded. <li data-bbox="467 1476 1524 1585">– 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.
Zoning	Divide a DMP display virtually into areas called screen zones, play particular content types simultaneously in each of those zones, change the DMP startup URL so that the zoning application loads quickly after a DMP restarts or recovers from problems with its network connection, and restart each targeted DMP automatically. See Working with Screen Zones , page 3-16.

Supported Fonts

The browser that is preinstalled on DMPs supports some bitmap fonts and some TrueType fonts. The browser will substitute an installed font for any unsupported font.



Note

Other typographic representations that you might show on a DMP display, such as the opening titles for a theatrical film, do not require that any font be installed. Similarly, when a font is embedded within a Flash file that you show, the Flash file will load correctly even if the corresponding font is not installed on your DMP.

Supported X11 Bitmap Fonts

These X11 bitmap fonts are preinstalled as part of this release:

Foundry	Family Name	Weight Name	Slant	Setwidth Name	Add Style Name	Pixel Size	Point Size	Resolution X	Resolution Y	Spacing	Average Width	Charset Registry	Charset Encoding
adobe-	helvetica-	bold-	r-	normal-	-	0-	0-	75-	75-	p-	0-	iso8859-	1
adobe-	helvetica-	bold-	r-	normal-	-	12-	120-	75-	75-	p-	70-	iso8859-	1
adobe-	helvetica-	bold-	r-	normal-	-	14-	140-	75-	75-	p-	82-	iso8859-	1
adobe-	helvetica-	bold-	r-	normal-	-	18-	180-	75-	75-	p-	103-	iso8859-	1
adobe-	helvetica-	bold-	r-	normal-	-	24-	240-	75-	75-	p-	138-	iso8859-	1
b&h-	lucida-	bold-	l-	normal-	sans-	0-	0-	75-	75-	p-	0-	iso8859-	1
b&h-	lucida-	bold-	l-	normal-	sans-	12-	120-	75-	75-	p-	79-	iso8859-	1
b&h-	lucida-	bold-	l-	normal-	sans-	14-	140-	75-	75-	p-	92-	iso8859-	1
b&h-	lucida-	bold-	l-	normal-	sans-	18-	180-	75-	75-	p-	120-	iso8859-	1
b&h-	lucida-	bold-	l-	normal-	sans-	24-	240-	75-	75-	p-	152-	iso8859-	1
misc-	fixed-	medium-	r-	normal-	-	7-	50-	100-	100-	c-	50-	iso8859-	1
misc-	fixed-	medium-	r-	normal-	-	7-	70-	75-	75-	c-	50-	iso8859-	1
misc-	fixed-	medium-	r-	normal-	-	8-	60-	100-	100-	c-	50-	iso8859-	1
misc-	fixed-	medium-	r-	normal-	-	8-	80-	75-	75-	c-	50-	iso646.1991-	irv
misc-	fixed-	medium-	r-	normal-	-	8-	80-	75-	75-	c-	50-	iso8859-	1

- 5x7
- 5x8
- 6x13
- cursor
- fixed

Supported TrueType Fonts

These TrueType fonts are preinstalled as part of this release:

Name	Filename	Typographic Sample
Vera Sans	Vera.ttf	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#\$%^&
Vera Sans Bold	VeraBd.ttf	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890
Vera Sans Bold Oblique	VeraBI.ttf	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890</i>
Vera Sans Oblique	VeraIt.ttf	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#\$%^&</i>
Vera Sans Mono	VeraMono.ttf	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#\$%^&* ()
Vera Sans Mono Bold	VeraMoBd.ttf	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#\$%^&* ()
Vera Sans Mono Bold Oblique	VeraMoBI.ttf	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#\$%^&* ()</i>
Vera Sans Mono Oblique	VeraMoIt.ttf	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890!@#\$%^&* ()</i>
Vera Serif	VeraSe.ttf	ABCDEFGHIJKLMNOPQRSTUVWXYZabcd efghijklmnopqrstuvwxyz1234567890!@#\$
Vera Serif Bold	VeraSeBd.ttf	ABCDEFGHIJKLMNOPQRSTUVWXYZabcd efghijklmnopqrstuvwxyz1234567890

Delivering Saved Commands and Content Files to Your DMPs



Tip

Network congestion or other performance problems at a DMP deployment site might cause the content that you deliver 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.

Topics in this section tell you how to publish (deliver to your DMPs) the content files and commands that you saved elsewhere in DMM-DSM.

- [Delivering Commands or Content Files Immediately](#), page 3-30
- [Scheduling Future Deliveries of Commands or Content Files](#), page 3-31
- [Preempting a Recurring Delivery for a One-time Event](#), page 3-35

Delivering Commands or Content Files Immediately

You can deliver commands or content files 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 publishing to external (FTP) servers.
- We recommend that you avoid using immediate publishing with ACNS, due to the amount of time required to distribute content 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.

Before You Begin

- You must already have created and saved the commands or the content files that you will deliver. See [Creating and Categorizing Digital Signage Content](#), page 3-6.
- You must already have created the DMP group whose member DMPs should receive the delivery. See [Managing and Grouping DMPs](#), page 3-1.

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
 - Step 2** Select **Publisher > Immediate**.
 - Step 3** In the **DMP Groups** object selector, click the name of a DMP group to see its member DMPs in the DMP List table.
 - Step 4** In the DMP List table, select the check box for each DMP that should receive the delivery.
 - Step 5** Select from the **Actions** list the name of the saved application that you want to deliver.

Options in the Actions list are sorted into categories, based on their purpose. For example, the Playlists category contains every playlist that you have defined, while the Zoning category contains every zoning application that you have created. The Actions list contains a particular category only if you have created what the category should describe; for example, if you have not defined any playlists, the Actions list does not show the Playlists category.

Step 6 Click **Go**.

Scheduling Future Deliveries of Commands or Content Files

You can schedule future one-time or repeated delivery of commands or content files to:

- One registered DMP.
- Multiple registered DMPs that all use the same one DMP group as their parent.
- All of your registered external (FTP) publishing servers; DMM-DSM treats all of your registered external servers identically.

In addition, you can view two types of summary for any scheduled delivery. See:

- [Understanding Tooltips in the Scheduler Timeline, page 3-33](#)
- [Understanding Popup Windows in the Scheduler Timeline, page 3-34](#)

When you publish to DMPs, the only supported application type is zoning applications, which you can publish only one at a time. If you want a particular zoning application to play during stage-one failover on a DMP, the combined filesize of all its files must not be any more than 900 MB.



Caution

Do not delete the scheduled publishing job for a playlist to stop the playlist from playing content on your DMPs. If you delete the publishing job, your DMPs will continue to use the playlist as if you did nothing. This happens because each publishing job includes an instruction to stop, but you delete that instruction when you delete the publishing job that contains it. To stop your DMPs from using a playlist in this case, create a new publishing job that delivers the instruction to *stop all applications*. See the “[System Tasks](#)” row in [Table 3-6 on page 3-20](#).



Note

It is important that you understand all of the possible limitations and effects of publishing 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. Also, DMM-DSM can publish only some application types to FTP servers.

- Video files do not play at all if you publish a playlist (or publish a zoning application that uses a playlist) to an FTP server when the playlist uses MPEG files that are:
 - Served from Microsoft Internet Information Server (IIS). On Windows, we support only Apache.
 - Requested through Microsoft Proxy Server.
 - Requested through Microsoft Internet Security and Acceleration Server.
- When your media library in DMM is the source for a file that you publish as part of a playlist, 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, then changes the relevant playlist application 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 published 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.
- When you publish to an FTP server, the supported application types are these only:
 - **Playlists**—See [Creating and Organizing Digital Signage Playlists](#), page 3-11.
 - **Flash**—See [Working with Flash Applications](#), page 3-14.
 - **Zoning**—See [Working with Screen Zones](#), page 3-16.
 - **Multicast**—See the “Multicasts” row in [Table 3-6 on page 3-20](#).

You can schedule a delivery to occur at any time and recur any number of times, and you can schedule any number of deliveries. DMM-DSM can make multiple deliveries simultaneously and—assuming that a DMP has a fast network connection and you send deliveries to it that are not mutually exclusive—a DMP can receive multiple deliveries simultaneously.

Before You Begin

- You must already have created and saved the commands or the content files that you will deliver. See [Creating and Categorizing Digital Signage Content](#), page 3-6.
- You must already have created the DMP group that should receive a delivery. See [Managing and Grouping DMPs](#), page 3-1.

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Publisher > Scheduler**.
- Step 3** Click **Select Target Date**, then click the calendar date for the first delivery.
- Step 4** Do one of the following:
- If you are scheduling a new delivery, select from the **DMP Groups** list the DMPs or the external (FTP) publishing servers that should receive the delivery.
 - If you are editing a scheduled delivery, find that task in the timeline row that names the recipient DMP group. You might have to scroll horizontally through the timeline to see earlier or later times. When you find the task, click it to select it.
- Step 5** Set or edit the timing for delivery:
- a. From the **How Often** list, select the interval between deliveries.
 - b. In the **From** area, click , then select the hour and minute to start the delivery.
 - c. In the **To** area, click , then select the calendar date, hour, and minute to stop the delivery.

The times that you configure for deliveries are relative to the time zone where you deployed your DMM appliance, not to the time zone where you deployed any DMP. You set the time zone value when you used AAI to set up your DMM appliance and you can change 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 4.0* on Cisco.com.

- Step 6** Select the **Applications** list option that names what you want to deliver.

Options in the Applications list are sorted into categories, based on their purpose. For example, the Playlists category contains every playlist that you have defined, while the Zoning category contains every zoning application that you have created. The Applications list contains a particular category only if you have created what the category should describe; for example, if you have not defined any playlists, the Applications list does not show the Playlists category.

- Step 7** Do one of the following:
- If you are scheduling a new delivery, click **Add Task**.
 - If you are editing a scheduled delivery, click **Update Task**.
 - If you are deleting a scheduled delivery, click **Remove Task**.
- Step 8** To save your selections, click **Save**.
- If you do not save your selections for a delivery that you add or update, DMM-DSM discards your selections immediately after you refresh your browser or load any other page in it.
- Step 9 (Optional)** To make copies of a delivery, so that it recurs as many times as you want and at any interval that you specify, click **Multiply Task**.
- a. At the first prompt, enter the hours and minutes between copied instances of the delivery. Use the format for military time (24 hours that increment from 0100 to 2400) and the format **HH:MM**.
 - b. At the second prompt, enter the number of copies to make.
- Step 10 (Optional)** To transmit the delivery according to the schedule that you defined—and synchronize it if you use ACNS—click **Publish**.
-

Understanding Tooltips in the Scheduler Timeline

Whenever your pointer hovers over a scheduled delivery in the timeline, DMM-DSM displays a tooltip. Information in the tooltip describes the current status of the corresponding delivery and summarizes its most important attributes. Information in the tooltip is organized as follows:

- **Status**—One of the following:
 - **New**—You made selections to define a new delivery. 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 delivery and you clicked Save. DMM-DSM created a permanent record for the delivery, but has not scheduled it yet to run.
 - **Published**—You made selections to define a delivery, you saved your selections, and DMM-DSM has scheduled the delivery to run at the times that you specified.
 - **Scheduled**—The delivery is occurring now.
 - **Finished**—The delivery 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 delivery is (or was) scheduled to start.
- **To**—The date and time when the delivery is (or was) scheduled to stop.
- **How Often**—The number of times that the delivery 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 deliver the command to start the designated application.
 - The second *N* is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in delivering the command to start the designated application.
 - The third *N* is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deliver the command to start the designated application.
- **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 deliver the command to stop the designated application.
 - The second *N* is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in delivering the command to stop the designated application.
 - The third *N* is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deliver the command to stop the designated application.

Understanding Popup Windows in the Scheduler Timeline

Whenever you double-click a scheduled delivery in the timeline, DMM-DSM opens a popup window. Information in the popup describes the current status of the corresponding delivery and summarizes its most important attributes. Information in the popup is organized as follows:

- **Application Name**—The selection that you made from the Applications list.
- **Application Type**—One of the following (see [Using Other DMM-DSM Applications, page 3-19](#)):
 - **DMP Discovery**
 - **DMP Video/Audio Settings**
 - **Go to URL**
 - **Flash**
 - **Multicasts**
 - **Playlists**
 - **Publishing**
 - **Startup URL**
 - **System Tasks**
 - **Upgrade DMP**
 - **Zoning**
- **From**—The date and time when the delivery is (or was) scheduled to start.
- **To**—The date and time when the delivery is (or was) scheduled to stop.
- **How Often**—The number of times that the delivery is scheduled to recur.
- **Status**—One of the following:
 - **New**—You made selections to define a new delivery. 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 delivery and you clicked Save. DMM-DSM created a permanent record for the delivery, but has not scheduled it yet to run.

- **Published**—You made selections to define a delivery, you saved your selections, and DMM-DSM has scheduled the delivery to run at the times that you specified.
- **Scheduled**—The delivery is occurring now.
- **Finished**—The delivery occurred at the scheduled time and is now stopped.
- **Group**—The selection that you made from the DMP Groups list.
- **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 deliver the command to start the designated application.
 - The second N is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in delivering the command to start the designated application.
 - The third N is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deliver the command to start the designated application.
- **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 deliver the command to stop the designated application.
 - The second N is a color-coded (green) numeral that counts the number of times that DMM-DSM succeeded in delivering the command to stop the designated application.
 - The third N is a color-coded (red) numeral that counts the number of times that DMM-DSM failed to deliver the command to stop the designated application.

In addition, a status bar at the bottom of the popup window counts the number of errors associated with the described delivery.

Preempting a Recurring Delivery for a One-time Event

In some cases, you might want to show a playlist or a zoning application one time, or for a limited time, that overlaps with a recurring delivery. For example, you might schedule a playlist 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 playlist 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 ways that you might schedule a preemption. In this scenario, you can do any of the following:

- Schedule a recurring event for the first uninterrupted span of dates, schedule the one-time event, then schedule a copy of the first recurring event for the second uninterrupted span of dates.
- Create two DMP groups. In this scenario, 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. When the one-time event should begin, move your DMPs from Group_A to Group_B. When the one-time event should end, move your DMPs back to Group A.
- Schedule the recurring event to run every weekday, as you would expect, from 9:00 a.m. to 6:00 p.m. Schedule the one-time event to start at 9:05 a.m, so that it interrupts the recurring event instead of conflicting with its start time, and schedule it to stop at 6:00 p.m. The recurring task will begin again, as expected, the next day.

Using Administrative Options

This section contains these topics:

- [Configuring DMM-DSM User Accounts, page 3-36](#)
- [Limiting User Permissions, page 3-38](#)
- [Configuring DMM-DSM to Use a Servlet Server, page 3-41](#)
- [Configuring DMM-DSM to Send Notification Settings, page 3-41](#)
- [Configuring DMM-DSM to Use ACNS, page 3-42](#)
- [Configuring DMM-DSM to Use External Publishing Servers, page 3-43](#)
- [Viewing the DMM-DSM ‘About Box’, page 3-44](#)
- [Working with Downloads, page 3-44](#)

Configuring DMM-DSM User Accounts

You can configure user accounts for DMM-DSM.

Before You Begin

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

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Settings > User Accounts**, then select the options that meet your requirements. If you do not understand your options, see [Table 3-7](#).
- Step 3** Click **Submit**.
-

Table 3-7 Elements for Configuring DMM-DSM User Accounts

Element	Description
Users List	<p>Add, select, edit, or delete user accounts.</p> <ul style="list-style-type: none"> • Click a username to highlight it, so that you can edit or delete it. DMM-DSM automatically shows the Change User pane for the corresponding account, where you can edit its settings. •  (“Add New User”)—Shows the Add New User pane, where you can define the settings for a new user account. •  (“Delete User”)—Deletes the user account that you highlighted.

Table 3-7 Elements for Configuring DMM-DSM User Accounts (continued)

Element	Description
{Add New Change} User	<p>You can add or edit a user account. Elements and options are as follows:</p> <ul style="list-style-type: none"> • 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, then reenter it. • Administrator—The check box to select if this account belongs to an administrator. Otherwise, deselect the check box. 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. If you deselect the check box, 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, the check box is selected 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. Select a role to see or change the corresponding permissions for the user whose account you are adding or editing. After you select a role, you can set the permissions to create, read, write, and delete objects that are relevant to whichever role you selected. Depending on the user role that you select, an object might be a registered DMP, a registered FTP server, a content category in your digital media library, an application that you configured, or the target device (DMP or FTP server) to receive a scheduled delivery. <ul style="list-style-type: none"> – 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 content category in your digital signage media library, only the particular content categories that you specify, or none of the content 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 content deliveries to all of your registered DMPs and external (FTP) publishing servers, only the particular DMPs and FTP servers that you specify, or none of the registered DMPs or FTP servers. <p>The untitled table sorts user account permissions information into these rows:</p> <ul style="list-style-type: none"> • 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 deselect 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. • 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 delete} objects that pertain to whichever user role you selected from the Role list. Click the relevant button, then select 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 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, then select 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 displays either an object selector or the a from which to select 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 applications that you choose or to deliver content to only the DMPs that you choose.

Before You Begin

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

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Settings > User Accounts**.
- Step 3** 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 4** Make selections to limit any or all of the permissions that you will grant to the user. If you do not understand your options, see [Table 3-7 on page 3-36](#).

By limiting permissions in specific ways, you can assign highly specialized combinations of access to any DMM-DSM user. This table describes some of the types of limited permissions that you might want to assign and tells you how to assign them:

Scenario	What You Must Do
Allow a user to create content but not to publish it.	<ul style="list-style-type: none"> • From the Role list, select DMP Manager, then deselect every check box in the Create, Read, Write, and Delete columns. • From the Role list, select Content Manager, then select the All check box in the Create, Read, Write, and Delete columns. • From the Role list, select Application Manager, then select the Selected check box in the Create, Read, Write, and Delete columns. Next, do all of the following: <ul style="list-style-type: none"> – Click Create, then—in the table that associates permissions with applications—select only these check boxes: Flash, Go to URL, Multicasts, Playlists, and Zoning. – Click Read, then—in the table that associates permissions with applications—select only these check boxes: Flash, Go to URL, Multicasts, Playlists, and Zoning. – Click Write, then—in the table that associates permissions with applications—select only these check boxes: Flash, Go to URL, Multicasts, Playlists, and Zoning. – Click Delete, then—in the table that associates permissions with applications—select only these check boxes: Flash, Go to URL, Multicasts, Playlists, and Zoning. • From the Role list, select Publisher Manager, then deselect every check box in the Create, Read, Write, and Delete columns.

Scenario	What You Must Do
<p>Allow a user to administer one DMP (or all of the DMPs in one DMP group), but have no content-related permissions.</p>	<ul style="list-style-type: none"> • From the Role list, select DMP Manager, then select the Selected check box in the Create, Read, Write, and Delete columns. Next, do all of the following: <ul style="list-style-type: none"> – Click Create. Then, in the object selector, click a DMP or a DMP group to highlight it. – Click Read. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. – Click Write. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. – Click Delete. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. • From the Role list, select Content Manager, then deselect every check box in the Create, Read, Write, and Delete columns. • From the Role list, select Application Manager, then—in the table that associates permissions with applications—select only these check boxes: DMP Discovery, DMP Video/Audio Settings, System Tasks, Upgrade DMP. • From the Role list, select Publisher Manager, then select the Selected check box in the Create, Read, Write, and Delete columns. Next, do all of the following: <ul style="list-style-type: none"> – Click Create. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role. – Click Read. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role. – Click Write. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role. – Click Delete. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role.

Scenario	What You Must Do
<p>Allow a user to administer one DMP (or all of the DMPs in one DMP group), manage content for it, and publish content to it.</p>	<ul style="list-style-type: none"> • From the Role list, select DMP Manager, then select the Selected check box in the Create, Read, Write, and Delete columns. Next, do all of the following: <ul style="list-style-type: none"> – Click Create. Then, in the object selector, click a DMP or a DMP group to highlight it. – Click Read. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. – Click Write. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. – Click Delete. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. • From the Role list, select Content Manager, then select the All check box in the Create, Read, Write, and Delete columns. • From the Role list, select Application Manager, then—in the table that associates permissions with applications—select every check box. • From the Role list, select Publisher Manager, then select the Selected check box in the Create, Read, Write, and Delete columns. Next, do all of the following: <ul style="list-style-type: none"> – Click Create. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role. – Click Read. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role. – Click Write. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role. – Click Delete. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for the DMP Manager role.
<p>Allow a user to publish content to one DMP (or all of the DMPs in one DMP group), without any other permissions.</p>	<ul style="list-style-type: none"> • From the Role list, select DMP Manager, then deselect every check box in the Create, Read, Write, and Delete columns. • From the Role list, select Content Manager, then deselect every check box in the Create, Read, Write, and Delete columns. • From the Role list, select Application Manager, then deselect every check box in the Create, Read, Write, and Delete columns. • From the Role list, select Publisher Manager, then select the Selected check box in the Create, Read, Write, and Delete columns. Next, do all of the following: <ul style="list-style-type: none"> – Click Create. Then, in the object selector, click a DMP or a DMP group to highlight it. – Click Read. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. – Click Write. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions. – Click Delete. Then, in the object selector, click and highlight the same DMP or DMP group that you highlighted for Create permissions.

Step 5 Click **Submit**.

Configuring DMM-DSM to Use a Servlet Server

You can configure DMM-DSM to use a servlet server.

Before You Begin

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

-
- Step 1 Select **Digital Signage Module** from the untitled list at the top far-right of any page.
 - Step 2 Select **Settings > Network Settings**.
 - Step 3 In the Servlet Server Address field, enter the routable IP address or resolvable DNS hostname.
 - Step 4 Click **Save**.
-

Configuring DMM-DSM to Send Notification Settings

You can configure DMM-DSM to notify you or other interested parties automatically whenever important events affect your digital signage network.

Before You Begin

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

-
- Step 1 Select **Digital Signage Module** from the untitled list at the top far-right of any page.
 - Step 2 Select **Settings > E-Mail Notification Settings**, then select the options that meet your requirements. If you do not understand your options, see [Table 3-8](#).
-

Table 3-8 Elements for Configuring Notification Settings

Element	Description
SMTP Mail Server Configuration	Enter the required values for DMM-DSM to use an SMTP server. You must enter these values or you cannot send notification messages. <ul style="list-style-type: none"> • Host—Enter the routable IP address or resolvable DNS hostname for the SMTP server. • User—Enter the username for an email account on the SMTP server. • Password—Enter the password for the email user account on the SMTP server.
Administrator	E-mail Address —Enter the administrator email address.

Table 3-8 Elements for Configuring Notification Settings (continued)

Element	Description
Notification Events	<p>Make selections and enter required values to configure notification settings, then click Save.</p> <ul style="list-style-type: none"> • Notification Events—Select the event type. <ul style="list-style-type: none"> – DMP Registered—Select before you will enter the sender and recipient addresses for messages that list all newly registered DMPs. – DMP Up—Select before you will enter the sender and recipient addresses for messages that list all registered DMPs that restarted recently. – DMP Down—Select before you will enter the sender and recipient addresses for messages that list all registered but inaccessible DMPs. – DMP IP taken—Select before you will enter the sender and recipient addresses for messages that 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; see Managing and Grouping DMPs, page 3-1. 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. • From Addresses—Enter the email address from which to send notification messages. You can enter a unique sender address for each of the notification event types. • To Address—Enter the email address that should receive notification messages. You can enter a unique recipient address for each of the notification event types. • From Address—The human-readable “name” that notification messages should associate with the From address that you entered. You can enter a distinct name for each of the different notification categories to assist you in filtering or recognizing important messages when you receive them. • Text before List of the DMPs—Enter the text that notification messages should place before the list of DMPs. • Text after List of the DMPs—Enter the text that notification messages should place after the list of DMPs.

Configuring DMM-DSM to Use ACNS

You can configure DMM-DSM to use ACNS.

Before You Begin

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

-
- Step 1 Select **Digital Signage Module** from the untitled list at the top far-right of any page.
 - Step 2 Select **Settings > ACNS Settings**, then select the options that meet your requirements. If you do not understand your options, see [Table 3-9](#).
 - Step 3 Click **Save**.
-

Table 3-9 Elements for Using ACNS

Element	Description
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.

Configuring DMM-DSM to Use External Publishing Servers

You can configure DMM-DSM to use external publishing servers. The only supported server type is FTP in this release.

Before You Begin

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

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
 - Step 2** Select **Settings > External Publishing Servers**, then select the options that meet your requirements. If you do not understand your options, see [Table 3-10](#).
 - Step 3** Click **Save**.
-

Table 3-10 Elements for Using External Publishing Servers

Element	Description
External Server Publishing List	<p>Add, select, edit, or delete external publishing (FTP) servers.</p> <ul style="list-style-type: none"> • 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. •  (“Delete External Publishing Server”)—Deletes the server that you highlighted.

Table 3-10 Elements for Using External Publishing Servers (continued)

Element	Description
{Add New Change} External Publishing Server	<p>You can add or edit an FTP server. Elements and options are as follows:</p> <ul style="list-style-type: none"> • Host—The routable IP address or resolvable DNS hostname of the external publishing (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—Enter the directory to use on the external publishing server. You can use a forward slash (/) as the first character, but we do not require it. • HTTP Port—Enter the port number to use on the external publishing 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 <i>anonymous</i>. • Password Confirm Password—You must enter the FTP password, then reenter it.

Viewing the DMM-DSM 'About Box'

To view version information about DMM-DSM, select **Digital Signage Module** from the untitled list at the top far-right of any page, then select **Help > About**.

Working with Downloads

You can use the Downloads page.

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Help > Downloads**, then click a button to download the software that the corresponding row describes (or run a test that tells you if you must download software).
-

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

You can create a zoning application that shows video files from a playlist, then publish the playlist and its media files 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 1 GB.
- A zoning application cannot play *any* file with a filesize greater than 1.9 GB.
- For purposes of stage-one failover, the combined size of *all* files cannot exceed 900 MB. To understand failover, see the “Understanding Content Substitution (Failover)” topic in *User Guide for Cisco Digital Media Player Device Manager 1.0* on Cisco.com.

Step 1 Select **Digital Signage Module** from the untitled list at the top far-right of any page.

Step 2 To create a playlist of videos that you can show in the video zone of a zoning application, select **Applications > Playlist**, then do the following:

- Click **Add New Playlist** (📄), then enter a unique name for the new playlist in the Name field; for example, you might enter the name *LocalPlaylist*.
You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM.
- From the Content Categories object selector, select the category for video files that meet your requirements.
- In the Available Content table, click a row to highlight a video, then click **Select Applications** (➕) to move the highlighted video to the Selected Content table, so that it will be part of the playlist. To add videos to the playlist, repeat this step as many times as necessary.
- (Optional)** Highlight a video in the playlist, then do either or both of the following:
 - To reposition the video in the playlist, click **Move Selected Item Up** (⬆️) or **Move Selected Item Down** (⬇️).
 - To move the video from the Selected Applications table to the Available Applications table, click **Delete Selected Item** (✖️).
- To save the playlist, click **Submit**.

Step 3 To create a zoning application that contains the playlist, select **Applications > Zoning**, then do the following:

- Click **Add Zoning Application** (📄), then enter a name for the new zoning application in the Name field; for example, you might enter the name *LocalZones*.
You must enter a name. The name is unique in the sense that you have not used it as the name for any other application that you created in DMM-DSM.
- From the Template Type list, select the zoning template to use.
Each zone type (logo, video, Flash, and ticker) supports particular types of content files and your selection determines whether you must populate two, three, or four zones. To understand the zoning templates, see the “Template Type” row in [Table 3-5 on page 3-17](#).

- c. In the thumbnail representation of the zoning template that you selected, click a zone to highlight it, so that you can make selections for what to show in that zone.
 - d. Select appropriate content for the highlighted zone. To understand the requirements, see the “Template Type” row in [Table 3-5 on page 3-17](#).
 - e. To save the zoning application, click **Submit**.
- Step 4** To create a publishing application that can deliver the zoning application anywhere in your digital signage network, select **Applications > Full Applications List > Publishing**, then do the following:
- a. Click **Add New Application** (📄), then enter a name for the new publishing application 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 as the name for any other application that you created in DMM-DSM.
 - b. In the Applications list, click **Zoning**.
 - c. In the Available Content table, click a row to highlight the zoning application, then click **Select Applications** (➕) to move the highlighted zoning application to the Selected Content table, so that it will be part of the publishing application.
 - d. To save the publishing application, click **Submit**.
- Step 5** To deploy the publishing application to a DMP or DMP group, select **Publisher > Immediate**, 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 publishing application that you created, then click **Go**.

DMM-DSM deploys the files and commands immediately to the DMPs that you selected, and the targeted DMPs restart automatically. After they restart, your DMPs show the newly received content on their attached DMP displays.

Understanding and Using DMP Status Report Charts

This section contains these topics:

- [Viewing the DMP Access Status Summary, page 3-46](#)
- [Viewing Available and Used Disk Space, page 3-47](#)

Viewing the DMP Access Status Summary

You can view a color-coded chart that illustrates in real time how many of the DMPs you registered in DMM-DSM are reachable for centralized management.

- The color green represents registered DMPs that are reachable.
- The color red represents registered DMPs that are unreachable.

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Site Manager > Site Report**.
-

**Tip**

The interval between polling cycles is 2 minutes, so any newly added DMP might report temporarily that it is unavailable; if this happens to you, wait a few minutes, then check again.

If you notice that any of your DMPs are unreachable, see *Troubleshooting Guide for Cisco Digital Media Player 4300G*.

Viewing Available and Used Disk Space

You can view a color-coded chart that illustrates the percentages of free disk space and used disk space.

- The color green represents available space in gigabytes.
- The color blue represents used space in gigabytes.

-
- Step 1** Select **Digital Signage Module** from the untitled list at the top far-right of any page.
- Step 2** Select **Content Manager > Disk Space**.
-

