

WAN Manager Guide



[SAFARI Montage](#)

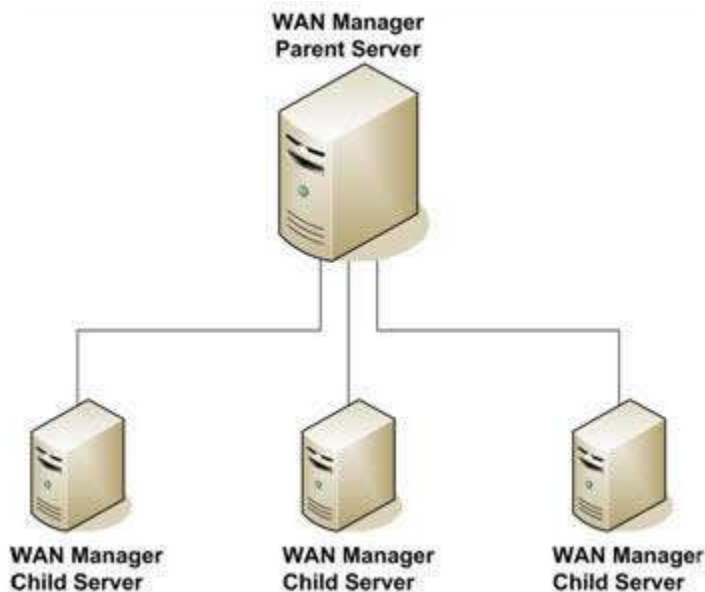
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WAN Manager Overview

Overview

WAN Manager is a centrally managed Video-on-Demand solution. The Central Server, or WAN Manager, can be used directly by clients (direct schools) and/or in a single tier architecture called Parent/Child. WAN Manager services all of the Video On Demand (VOD) needs in a Wide Area Network by being able to support numerous direct schools and remote school servers.

Server Types



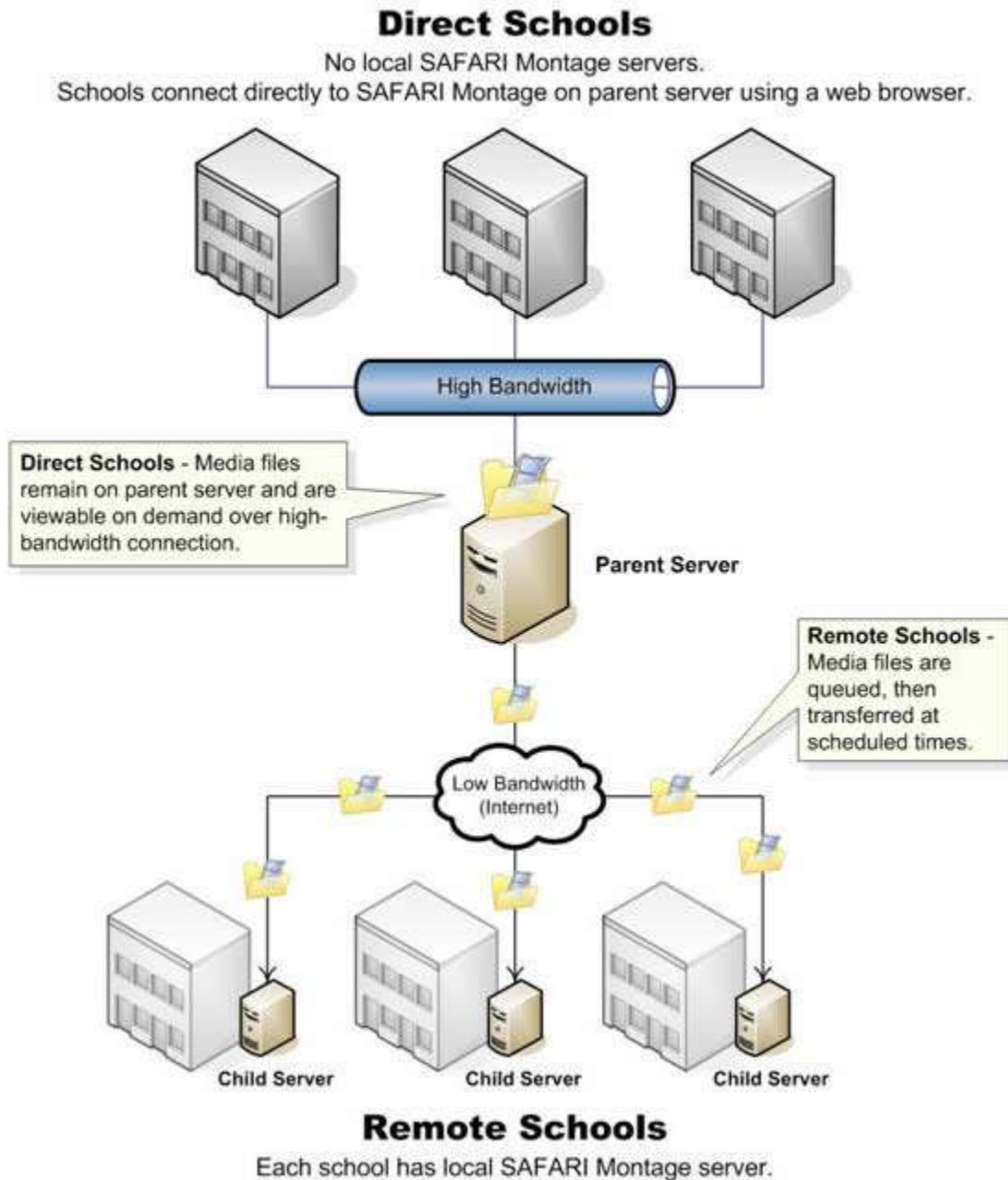
- **Parent Server**

The parent server is the WAN Manager. WAN Manager can have any number of connected remote school servers. The parent server has control over certain functions on its remote school servers, such as specifying what things are sharable (see '[Sharing in WAN Manager](#)'), whether shared items are subject to approval and what times of day media may be transferred between servers. Parent servers may also assign content package licenses to schools on remote school servers, thereby giving them access to that content (see WAN Manager Media and License Management).

- **Remote School Server**

Remote School servers can only have a single parent server. Remote school servers, in most cases, reside in a remote location to the parent server. They may have their own local content or may be granted content licenses from the parent server (see '[WAN Manager Media and License Management](#)').

School Types



- **Direct (Virtual)**

A direct school can be thought of as a 'virtual school.' It is a private instance of SAFARI Montage on a particular server. A direct school has its own set of user accounts, content packages, playlists and user preferences. Users at this school connect directly to the WAN Manager server over a high-bandwidth connection by using a browser. They do not need a SAFARI Montage server at their location.

- **Remote**

A remote school is one that is located on a connected server, which is external to your local server. For example, in the case of a parent server, remote schools are schools located on the remote school servers. In the case of the remote school server, remote schools are schools that do not reside on the local remote school server. Schools located on the parent server and/or other remote school servers are considered remote. Remote school servers usually do not connect directly to the parent server through a browser, because bandwidth between parent and remote school servers is usually too low to play back SAFARI Montage's high-quality video. These 'remote schools' connect to their local WAN Manager-enabled SAFARI Montage server.

Content packages may exist locally to their server or may be assigned to them from the parent server. When a content package exists locally, its media files also exist locally, so titles are readily available for instant playback to all schools on that server. When a content license has been assigned to a remote school from the parent server, the media files do not exist locally. Instead, the files must be transferred to the remote school server, upon user request, during times specified in the school's transfer schedule. This ensures that SAFARI Montage's large video files are only transferred during off-peak hours so they do not consume the school's network bandwidth during the school day (peak hours).

Activating WAN Manager Add-On Modules

WAN Manager is a SAFARI Montage Module product. Like all modules, before it may be used, it must be activated. Modules cannot be activated without a valid license from Library Video Company. A valid license was created for your organization at the time you purchased WAN Manager.

There are three types of activation available: **Automatic**, **Semi-Automatic** and **Manual** activation. Both automatic forms of activation require that your SAFARI Montage server has access to the Internet. When a module is activated, SAFARI Montage communicates with a remote licensing system via the HTTP protocol over the standard port 80. If a valid license exists, the product will activate.

To perform any of these activation methods, you must be logged in to SAFARI Montage as an administrator.

Automatic Activation

Automatic activation will attempt to detect and activate all inactive content packages and modules in the system. For the package to activate, a valid license must be found in the remote licensing system.

1. Click 'Admin' in the SAFARI Montage header.
2. Click 'Settings' from the left-hand menu.
3. Click 'Add-On Modules' from the submenu of Settings.
4. Mark the 'check box' agreeing to the License Agreement.
5. Fill out the required information.
6. Click the 'Next' button.

The system will activate each inactive package and add-on, verifying each activation with the remote licensing. Please be aware that this process can take some time (sometimes up to several hours), depending on the number of packages being activated.

Semi-Automatic Activation

During semi-automatic activation, you will be asked to enter the 'Product ID' that was provided to you by Library Video Company when you ordered the product.

Semi-auto activation requires that the SAFARI Montage server has access to the Internet. When a module is activated, SAFARI Montage communicates with our remote licensing system via the HTTP protocol over the standard port 80. If a valid license exists, the product will activate.

1. Click 'Admin' in the SAFARI Montage header.
2. Click 'Settings' from the left-hand menu.
3. Click 'Add-On Modules' from the submenu of Settings.
4. Click the 'Activation' link to the right of the WAN Manager module.
5. Click the 'Activate' button.
6. Enter the 'Product ID' in the provided field.
7. Click the 'Activate' button.

Manual Activation

Manual activation can be used if auto-activation fails for whatever reason. The most likely reason would be that Internet connectivity does not exist to the SAFARI Montage server.

To manually activate the WAN Manager module, you must be logged in to SAFARI Montage as an administrator. First, you need to gather three pieces of information from the Manual Activation page in SAFARI Montage. These codes must be entered into our activation web site to retrieve your manual activation ID and password.

1. Click 'Admin' in the SAFARI Montage header.
2. Click 'Settings' from the left-hand menu.
3. Click 'Add-On Modules' from the submenu of Settings.
4. Click the 'Activation' link to the right of the WAN Manager module.
5. Click the 'Manual' button.

The Manual Activation page displays with three key pieces of information: **Unit ID**, **Version Number** and **Serial Number**. You will need this information to retrieve your Activation ID and Password from the web site.

6. Launch a new browser window, leaving the manual activation page open in the background.

Retrieve Activation Codes


A web site has been set up to allow you to acquire your manual activation codes.

1. Navigate to <http://software.safarivideonetworks.com/> in the browser window opened above.
2. Click the 'Activate' link next to the SAFARI Montage logo.
3. Enter the 'Product ID.'
4. Mark the 'check box' agreeing to the License Agreement.
5. Fill out the required information.
6. Click the 'Next' button.

7. Verify the contact information entered, and create a log in for the web site.
8. Click the 'Save' button.
9. Enter the 'Unit ID,' 'Version Number' and 'Serial Number' into the provided fields.
10. Click the 'Get Password' button.

An Activation ID and Password will displayed.

11. Switch to the browser window containing the Manual activation.
7. Enter the 'Activation ID' and 'Password' received during 'Retrieve Activation Codes.'
8. Click the 'Activate' button.

If activation was successful, you will be returned to the Modules page and the Active checkmark () will be shown next to WAN Manager module.

Repeat the above process for any other parent or remote school servers.

Activation Assistance

If you need further assistance with the manual activation process, please contact our technical support department <http://www.safarimontage.com/support/>.

WAN Manager Administrative Functions

All WAN Manager-specific administrative settings are grouped under their own submenu in the Admin area. The options in the navigation are different, depending on whether you are using a WAN Manager parent server or remote school server.



Descriptions of each WAN Manager administrative menu items are below.

- **Content Pending Approval**

Content Pending Approval houses all media titles that are waiting for approval before they are made live on the system. Any user in either of the Teacher groups can be designated as an Approver by an administrator. Users in the Administrators group can always approve content.

- **Playlists Pending Approval**

Playlists Pending Approval houses all playlists that are waiting for approval from an Approver before they are made live on the system. Any user in either of the Teacher groups can be designated as an Approver by an administrator. Users in the Administrators group can always approve playlists.

- **Remote School Servers**

The Remote School Servers page is only available on the parent server. This page shows you a list of the remote school servers that are currently connected to this parent server. Also shown is the current syncing activity between the databases. See Data Syncing for more information. Located under each remote school server is a listing of content packages that are local to that remote school.

- **Schools**

The Schools section is where all school management functions take place. These functions include the creation and removal of schools on this server, assignment of content package to

schools (both local and remote), and management of school-specific settings such as WAN settings, user accounts and LDAP mappings. See School Management for complete information.

- **Transfer Queue**

The transfer queue lists all pending media file transfers. When a remote media file is requested by a user, the media file is queued and transferred during the times of day surrounding the peak hours set in the transfer schedule.

- **WAN Settings**

The WAN Settings page allows you to configure an array of WAN Manager-specific settings, such as disk space limits, media transfer schedule and, in the case of the parent server, upload and content approval constraints. See '[WAN Settings](#)' for more information.

On the remote school server, the WAN Settings page allows you to specify which server to use as your parent server when connecting two units together. For more information, please see '[Connecting Remote School Servers to Parent Server](#).'

WAN Settings

All WAN Manager-specific administrative settings are grouped under their own submenu in the Admin area. The options in the navigation are different, depending on whether you are using a WAN Manager parent server or remote school server.

Common to Parent and Remote School Servers

Drive Space

- **Disk Space Warning**

The drive space warning is labeled ‘CreationStation and WAN Manager space available warning at this threshold.’ When free drive space reduces beyond this level, SAFARI Montage will begin displaying warning messages to Administrators.

- **Disk Drive Space Limit**

The drive space limit is labeled ‘Prevent CreationStation uploads and WAN Manager transfers when at this threshold.’ When free drive space reduces to this limit, uploads and WAN Manager media file transfers will cease.

Transfer Schedule

The transfer schedule allows you to specify peak times of day when you would not like media file transfers to occur between your connected SAFARI Montage units. It also allows you to throttle bandwidth usage down to specific levels.

- **Limit Transfer Speed**

This setting will throttle bandwidth used for media file transfers between SAFARI Montage units.

- **Ignore Transfer Schedule**

Activating this checkbox disables the transfer schedule. Media files will transfer between SAFARI Montage units at all times of day.

Parent Servers Only

The following settings are found on WAN Manager parent servers only.

- **Allow Users to Publish Uploaded Media to District**

Activating this setting gives users the ability to share user-uploaded media with the parent server.

- **Allow Users to Publish Uploaded Media to District Requires Approval**

Activating this setting causes all published media to be subject to approval first before they are made live on the system. Published media that is awaiting approval sits in the 'Content Pending Approval' area until it is approved by a designated Approver.

- **Allow Users to Share Playlists with the District**

Activating this setting gives users the ability to share playlists with the parent server.

- **Allow Users to Share Playlists with the District Requires Approval**

Activating this setting causes all shared playlists to be subject to approval first before it is live on the system. Playlists that are awaiting approval sit in the 'Playlists Pending Approval' area until they are approved by a designated Approver.

- **Apply All Settings Below to Remote School Servers**

This checkbox, when active, causes all settings below that point, including the transfer schedule, to migrate to remote school servers. The remote school servers will no longer have control of those settings on their SAFARI Montage system. Changes in settings will not arrive on the remote school server until the next data sync background process runs. Please allow up to 30 minutes for settings to arrive at the remote school servers.

Remote School Servers Only

The following settings are found on WAN Manager remote school servers only.

- **Parent Server (IP or Hostname)**

This textbox contains the hostname, or IP address, of the parent server. After entering the valid hostname or IP address of the parent server, the remote school server will go through an initialization and data syncing process between it and the parent server.

Connecting Child Servers to Parent Server

To connect a remote school server to a parent server, you must be logged into the remote school server as an administrator.

1. Click 'Admin' in the SAFARI Montage header.
2. Click 'WAN Manager' from the left-hand menu.
3. Click 'WAN Settings' from the sub-menu of WAN Manager.
4. Enter the 'Hostname' or 'IP address' of the parent server into the field labeled 'Parent Server.'
5. Click the 'Update' button.

Data Syncing


SAFARI Montage WAN Manager maintains data concurrency between servers through a background data syncing process. This process runs every 15 to 30 minutes. It is responsible for transferring the data for such things as media metadata, playlists, personal user data and various WAN settings that must be exchanged.

The user may monitor the data syncing progress via the 'Remote School Servers' page on the parent server or via the 'WAN Settings' page on the remote school server. Both of these areas show the date and time of the last communication, and a progress indicator shows how much of the database is synced.

Remote School Servers

The Remote School Servers page lists all of the child servers that are attached to the WAN parent server.

Listing of Attached Child Servers

1. Log into the WAN Manager Parent Server.
2. Click 'Admin' on the SAFARI Montage header. 
3. Click 'WAN Manager' from the secondary navigation menu.
4. Click 'Remote School Servers' from the WAN Manager submenu. This displays a listing of all of the child servers attached to the WAN Parent that you are logged into. The percent synchronized, the time of the last communication with each child and the content packages installed on each child server is listed for quick viewing.

Results 1 to 1 of 1										
Version	Serial Number	IP	Host	Last Communication	% Synchronized	Status	Local Packages	Networks		
4.0.9	001034	172.20.50.170	frost.wyn.lvc.com	3 mins 55 secs	100%	ok	13 	add/remove	clear	

Remotely Update All Child Servers

On the Remote School Servers page, you have the option to remotely push out the update to all child servers whenever a software or content update is run on the WAN parent server. By enabling this feature, it will save the administrator the time of manually updating each child server individually. To enable this feature, check the box at the top of the screen labeled 'Remote update all servers.'

Assigning Networks to a Child Server

Multiple ranges of IP addresses can be associated with a specific remote school server for the purposes of forwarding permanent links created on the parent server. If a user's IP address falls within the range, it is forwarded to the associated remote school, where the media will play it if it is available. These networks are defined by IP/Netmask pairs. Any number of networks may be associated with a single remote school server.

To assign a network to a remote school server:

1. Log into the WAN Manager Parent Server.
2. Click 'Admin' in the SAFARI Montage header.
3. Click 'WAN Manager' from the left-hand menu.
4. Click 'Remote School Servers' from the submenu of WAN Manager.
5. Locate the remote school server that you want to modify network assignments for and click the 'add/remove' link under the 'Networks' column for that server.



Results 1 to 4 of 4

Version	Remote Update	Serial Number	IP	Host	Last Communication	% Synchronized	Status	Networks
Hornet	<input type="checkbox"/>	001587	172.20.50.189	hornet.wyn.lvc.com	7 secs	100%	ok	add/remove

Local content packages: 5

6. Enter the 'IP address' and its corresponding 'Netmask' to assign additional networks to this remote school server.

Hornet

Assigned Networks / Network Masks

To assign additional networks to this server, please enter an IP Address, its corresponding Netmask, then click the "Add" button.

IP Address

Netmask

Note: Multiple ranges of IP addresses can be associated with a specific child server for the purposes of forwarding permanent links created on the parent server. If a user's IP address falls within the range, it is forwarded to the associated child, where the media will play *if available.* These networks are defined by IP/Netmask pairs. Any number of networks may be associated with a single child.

7. Click the Add button.

To remove an assigned network from a remote school server:

1. Log into the WAN Manager Parent Server.
2. Click 'Admin' in the SAFARI Montage header.
3. Click 'WAN Manager' from the left-hand menu.
4. Click 'Remote School Servers' from the submenu of WAN Manager.
5. Locate the remote school server that you want to modify network assignments for, and click the 'add/remove' link under the 'Networks' column for that server.
6. Select the assigned network you want to remove and click the 'Remove' button.

Hornet

Assigned Networks / Network Masks

172.20.140.186 / 255.255.255.0

To assign additional networks to this server, please enter an IP Address, its corresponding Netmask, then click the "Add" button.

IP Address

Add

Netmask

Remove

Remove All

Note: Multiple ranges of IP addresses can be associated with a specific child server for the purposes of forwarding permanent links created on the parent server. If a user's IP address falls within the range, it is forwarded to the associated child, where the media will play *if available.* These networks are defined by IP/Netmask pairs. Any number of networks may be associated with a single child.

School Management

The Schools section of the WAN Manager administrative area is where all school management functions take place, such as creation of schools, LDAP mappings, user accounts and assignment of content package licenses.

A **school** in SAFARI Montage can be thought of as a separate, private instance of the SAFARI Montage system. A school has its own set of licensed content, user-uploaded content, playlists, user accounts, configuration settings, school logo and preferences.

Schools may be **local** or **remote** to the SAFARI Montage server. On a parent server, remote schools are those that exist on connected remote school servers. On the remote school servers, remote schools are those that exist on the parent server. **Local schools** are sometimes referred to as **direct schools** or **virtual schools**. Users in these schools must connect directly to the SAFARI Montage server by using a web browser.

School Settings

To add a school, click the ‘add school’ link on the Schools page. To add users to a school, click the ‘Users’ link.

[Add School](#)


Group: [View All Schools in All Groups](#) [New Group](#) • [Edit Groups](#)

Results 1 to 11 of 11

Name	Serial #	Assignments	Log In	Users	Delete	
Alpine High School	001590	7 (H)	Log In	LDAP	Users	✖
Blaze Elementary School	001590	3 (H)	Log In	LDAP	Users	✖
Central High School	001590	3 (H)	Log In	LDAP	Users	✖
Drexel Hill Middle School	001590	3 (H)	Log In	LDAP	Users	✖
Haverford Elementary School	001590	0 (H)	Log In	LDAP	Users	✖
LVC School	001590	0 (H)	Log In	LDAP	Users	✖
Merton High School	001590	0 (H)	Log In	LDAP	Users	✖
Monolith High School	001590	18 (H)	Log In	LDAP	Users	✖
Hape Middle School	001590	4 (H)	Log In	LDAP	Users	✖
Brady's Elementary School	001590	0 (H)	Log In	LDAP	Users	✖
Washington Elementary School	001590	18 (H)	Log In	LDAP	Users	✖

To modify a school’s specific preferences and settings, click a school name on the Schools page.

Monolith High School

School Name:	<input type="text" value="Monolith High School"/>
Link to SAFARIMontageHDNetwork.com on Dashboard:	<input checked="" type="checkbox"/>
Maximum Items per Search Page:	<input type="text" value="25"/>
Grade Range Defaults:	<input type="checkbox"/>
Default Grade Range:	<input type="text" value="Pre-K"/> to <input type="text" value="Adult"/>
Stills Display Running Time (seconds):	<input type="text" value="5"/> <small>(Minimum: 5 seconds, Maximum: 3600 seconds.)</small>
SAFARI Montage Media Player Support:	<input checked="" type="checkbox"/>
Media Player:	<input type="text" value="User's choice"/>
School Logo for Uploaded Content:	 Update
CreationStation Content Downloadable By:	Change Download Permissions
Packaged Content Downloadable By:	Change Download Permissions <small>(School must have a downloadable content package assigned, or this setting has no effect.)</small>

Interactive Whiteboard Settings

Enable Whiteboard Integration:	<input checked="" type="checkbox"/>
Default Whiteboard:	<input type="text" value="SMART"/>
Upload and Share Whiteboard Files:	<input type="text" value="Only teachers (w/ upload)"/>
Whiteboard File Size Limitation:	<input type="text" value="10240"/> <input type="text" value="KB"/>

LDAP Groups

Administrator User Type:	No LDAP Groups Assigned
Teacher (w/Upload) User Type:	<input type="text" value="⊕ LDAP Groups Assigned: 1"/>
Teacher User Type:	No LDAP Groups Assigned
Student User Type:	No LDAP Groups Assigned

LDAP Groups

Each school may have its own set of user accounts from the LDAP server to which SAFARI Montage is connected. Any number of user account groups from your LDAP directory server may be mapped to each of the four SAFARI Montage groups. For more information on connecting SAFARI Montage to an LDAP directory server, please see the LDAP Settings section of the SAFARI Montage Administrator Guide.

- **Mapping LDAP Groups**

To map your LDAP groups for a school, click the 'LDAP' link on Schools page. **Note:** You must have LDAP enabled in order to have this link visible. The 'Edit LDAP Groups' page will be displayed. The four SAFARI Montage groups are listed as tabs: Administrator, Teacher w/Upload, Teacher and Student. Follow the instructions on the 'LDAP Groups' page of the SAFARI Montage Administrator Guide.

WAN Manager Media and License Management

Media Content Types

There are two types of media content within SAFARI Montage: licensed content and user-uploaded content.

- **Licensed**

Licensed content is pre-packaged content that was purchased from Library Video Company.

- **User-Uploaded (CreationStation™)**

User-uploaded content is content that was uploaded by a user using the CreationStation module. This document uses the phrases **user-uploaded content** and **CreationStation content** interchangeably.

License Management - Assigning Licensed Content to Schools

Licensed content packages may be assigned to any school, direct or remote. CreationStation licenses may only be assigned to direct schools (on your local server). Media uploaded using the CreationStation module may be viewed by all schools, whether they have a CreationStation license or not. Schools with a CreationStation license may upload their own media. Schools without a CreationStation license will not see 'Upload' functions or 'Edit' buttons next to uploaded media.


For a content package to be assigned to a school, the parent server must own a license to that package. When a content package is activated, one or more licenses for that package are granted to that SAFARI Montage system. This license count is indicated in the 'Available' column on the Content Packages page in the Admin area. When a package is assigned to a school, the 'Used' column will increment by one. When all available licenses are assigned to schools, no additional content packages may be assigned. Due to licensing policies, package assignments cannot be deleted (unassigned) or reassigned to other schools without the approval of Library Video Company or SAFARI Video Networks. Please be sure that you are assigning content package licenses accurately.

- **Assignment to Direct Schools (Single Content Package)**

Assigning a content package license to a direct school makes the content immediately available to that school. They may play back content immediately, because the school resides on the same server as the content. The content does not need to be transferred from a remote SAFARI Montage server. To assign a licensed package that has been activated to a direct school, follow these steps:

1. Log into the WAN Manager Parent Server.
2. Click 'Admin' in the SAFARI Montage header.
3. Click 'WAN Manager' from the left-hand menu.
4. Click 'Schools' from the submenu of WAN Manager.
5. Locate the direct school that you want to assign an activated package to. Expand the content package assignment list for the school.



6. Select the activated package you want to assign to this school, and click the 'Add' button. The package will show up in the assigned list below. To unassign a package from a school, click the  icon next to the package.

- **Assignment to Direct Schools (Multiple Content Packages)**

Assigning multiple content package licenses to a direct school makes the content immediately available to that school. Because the school resides on the same server, licensed content may be played back immediately. To assign multiple content package on a direct school, follow these steps:

1. Log into the WAN Manager Parent Server.
2. Click 'Admin' in the SAFARI Montage header.
3. Click 'WAN Manager' from the left-hand menu.
4. Click 'Schools' from the submenu of WAN Manager.
5. Locate the direct school that you want to assign multiple content packages to and click on the 'assignments' link.

4.1.11 New School

Select the content packages below that you wish to assign to this school. Each assignment will use a new license unless unavailable.

Content Packages

Name	Licenses	Licenses Available	Expiration Date	
<input type="checkbox"/> G1113B01GN Additional Schlessinger K-8 Content Pkg (MOV)	99	93	May 24, 2011	manually assign
<input type="checkbox"/> G1113B01VN Additional Schlessinger Media K-8 Content Pkg (VMV)	99	93	January 12, 2011	manually assign
<input type="checkbox"/> G1113B03GN Additional Schlessinger Media K-8 Content Pkg (MOV)	99	98	March 23, 2012	manually assign
<input type="checkbox"/> G1113B03VN Additional Schlessinger Media K-8 Content Pkg (VMV)	99	98	March 12, 2011	manually assign
<input type="checkbox"/> G1117B01VN Additional Schlessinger Media K-8 Content Pkg Upgrade (VMV)	99	99	March 12, 2011	manually assign
<input type="checkbox"/> G1117B02GN R8 (MOV)	99	96	January 17, 2013	manually assign
<input type="checkbox"/> G1121B03GN Additional Schlessinger Media 9-12 Content Pkg (MOV)	99	99	March 23, 2012	manually assign
<input type="checkbox"/> G1125B01VN Core K-12 Content Pkg (VMV)	99	81 new • 1 old	May 3, 2011	manually assign
<input type="checkbox"/> G1128B02GN Core K-8 Content Pkg (MOV)	99	97	January 17, 2013	manually assign
<input type="checkbox"/> G1145B02GN Core K-8 w/ib Schlessinger Media Content Pkg (MOV)	99	98	March 23, 2012	manually assign
<input type="checkbox"/> G1170B02GN Schlessinger Media K-8 Content Pkg (MOV)	99	99	March 23, 2013	manually assign
<input type="checkbox"/> G1174B02GN Schlessinger Media 9-12 Content Pkg (MOV)	99	99	March 23, 2013	manually assign
<input type="checkbox"/> G1174B02VN Schlessinger Media 9-12 Content Pkg (VMV)	99	97	March 12, 2011	manually assign
<input type="checkbox"/> G1204B01VN Algebra'scool Teaching System Content Pkg (VMV)	99	91	November 20, 2012	manually assign
<input type="checkbox"/> G1208B01VN Math'scool Teaching System Content Pkg (VMV)	99	92	November 20, 2012	manually assign
<input type="checkbox"/> G1214B01DN Images from NASA Pkg (IMG)	99	90 new • 1 old		manually assign
<input type="checkbox"/> G1224B01VN National Underground Railroad Freedom Center Pkg (VMV)	99	91	August 1, 2011	manually assign

6. Check the activated content packages you want to assign to the school, and click the 'Save' button.

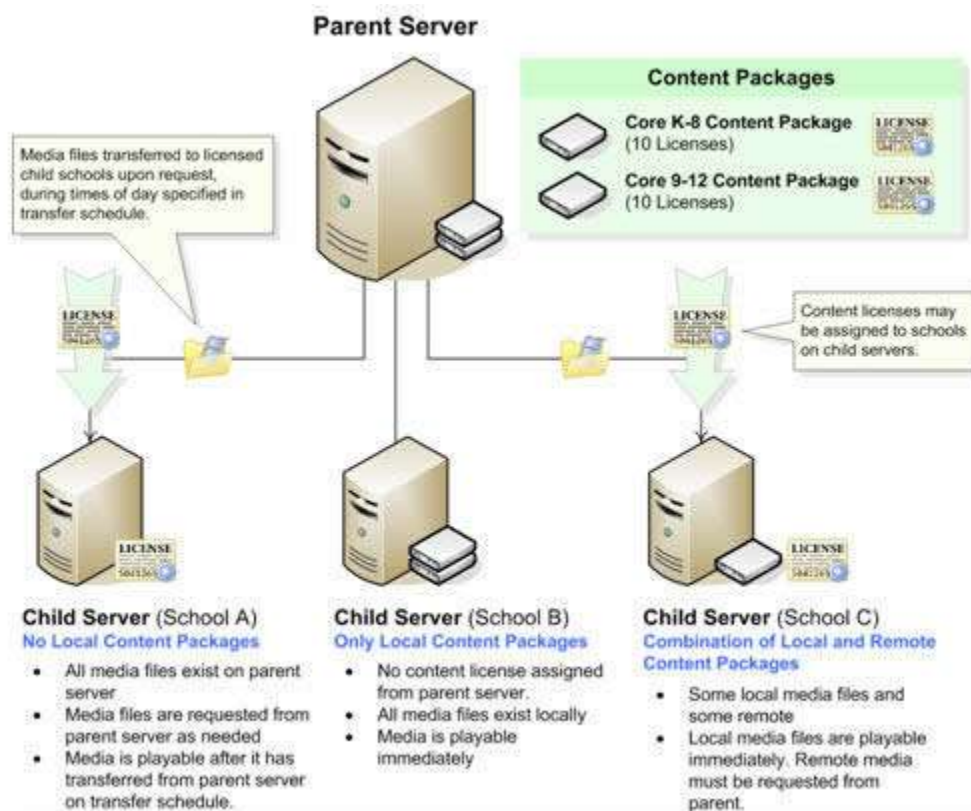
Note: To unassign multiple content packages, follow the steps above but uncheck the content package to unassign.

- **Assignment to Remote Schools**

Content package licenses may be assigned to schools on connected remote school servers by using the ‘Schools’ admin page on a parent server. In this case, the remote school does not need to have a local content package hard drive for that package. The media files remain on the parent server, and they are delivered to the child server upon request, during the times of day specified in their transfer schedule.



Assigning a content package license to a remote school causes several events:

- The data for that package becomes available in the remote school’s search results after the next sync process runs in 15 to 30 minutes.
- ‘Transfer’ buttons appear next to each title in the remote school’s search results for that package.
- Media files are not transferred to the remote school until a user in that school requests to transfer a title.




To assign a licensed package that has been activated to a remote school, follow these steps:


1. Log into the WAN Manager Parent Server.
2. Click ‘Admin’ in the SAFARI Montage header.
3. Click ‘WAN Manager’ from the left-hand menu.
4. Click ‘Schools’ from the submenu of WAN Manager.

5. Locate the remote school that you want to assign an activated package to. Remote schools have  next to the school name. Expand the content package assignment list for the remote school. Packages listed under 'Remote content package assignments' are active, assigned packages that reside on the remote school server.
6. Select the activated package you want to assign to this school and click the 'Add' button. The package will show up in the assigned list below. To unassign a package from a school, click the  icon next to the package.


Requesting a Media File Transfer

Once the content package is assigned to a remote school, all titles within the package will display in the school's search results. The titles are designated as remote by the 'Transfer' () icon that appears. By clicking the Transfer icon, the user is requesting to have the media file for that title transferred to their local SAFARI Montage server. When that request is made, the media file is queued in the Transfer Queue and is downloaded during the times of day permitted by the Transfer Schedule. Look at the 'Newly Received Content' panel on your dashboard for a list of newly transferred content.

Cancelling Queued Items


When the Transfer icon is clicked, it will change to a 'Cancel' () icon. Clicking Cancel will remove the item from the transfer queue, and the Transfer icon will reappear.

Delete Transferred Items

When the transfer is complete, the Cancel icon will change to a 'Delete' () icon. Clicking Delete will remove the file from your local server.

User Management in WAN Manager

When WAN Manager is enabled on a SAFARI Montage server, each school has its own set of user accounts. User accounts are managed in the same way that they are on a SAFARI Montage standalone system by using the **Settings > Users** section of the Admin area. To manage the user accounts for a particular school, select a school from the Schools drop-down list on the user management page. The users for that school will display. From that point on, users are managed exactly as they are on a SAFARI Montage standalone server.

On a WAN Manger parent server with multiple direct play schools, the administrator has the ability to transfer users from one school to another. To transfer a user to another school, click on the 'Transfer' () icon next to the user you wish to transfer. Then, select the school to which you wish to transfer the user from the drop-down list.



Sharing in WAN Manager

There are two items that may be shared to other schools across your district's Wide-Area Network: uploaded media and playlists.

Uploaded Media

To share uploaded media with other users within your school on either a parent or child server, activate the 'Share' checkbox on the CreationStation™ media upload page or the edit media page. When the checkbox is filled, a drop-down list of user groups becomes active. Select the user group to whom you would like to grant access within your school.

- **On a Parent Server**

Marking an item as 'Share to District' on a parent server makes the item available to all schools on the local parent server and distributes only the metadata to all schools on the remote school servers. The item will be immediately playable for schools on the parent server. Schools on the remote school server will see the metadata immediately and may transfer the media file upon request. Media marked as Share to District will bypass the approval queue.

Auto-Distribution is different than 'Share to District' in that 'Share to District' merely transfers the metadata (a media title's title, description, chapters, etc.). The 'Auto-Distribute' feature also transfers the media file immediately, along with its metadata. With 'Share to District,' the media file remains on the parent server until it is requested by a user on the remote child server. Two priority choices are available when auto-distributing content: standard and high. Standard priority items are placed at the bottom of the transfer queue. High priority items are transferred immediately or as the transfer schedule permits.

Please note, the 'Share to District' and 'Auto-Distribute' features are only available to users with administrator access.

- **On a Remote School Server**

Marking an item as 'shared' on a child server makes the item available to other users within your school on that local server. It does not share the item with the parent server. To share an item to the parent server and the rest of your sibling servers, if the parent permits, you must publish it (see Publishing in WAN Manager).

Auto-Distribution is different than 'Share to District' in that 'Share to District' merely transfers the metadata (a media title's title, description, chapters, etc.). The 'Auto-Distribute' feature also transfers the media file immediately, along with its metadata. With 'Share to District,' the media file remains on the parent server until it is requested by a user on the remote child server. Two priority choices are available when auto-distributing content: standard and high. Standard

priority items are placed at the bottom of the transfer queue. High priority items are transferred immediately or as the transfer schedule permits.

Please note, the 'Share to District' and 'Auto-Distribute' features are only available to users with administrator access.

Playlists

Two options are available in a drop-down list when sharing a playlist: School and District. The District option is only available if you have at least one item on your playlist and the 'share playlists with the district' option is active on the parent server.

- **School**

Selecting the 'School' sharing option on a playlist makes that playlist available to other users in your school only.

- **District**

Selecting the 'District' sharing option on a playlist makes that playlist available to all schools outside of yours. A district-shared playlist created on a remote school will travel to the parent server. The parent server has the option to allow that playlist to travel to other remote school servers. If the 'share playlists with the district' and 'Approval required' options are active in the WAN Settings page of the parent server, all playlists shared from remote school servers will be sent to the 'Playlists Pending Approval' area until it is approved by the administrator or a user designated as an 'Approver.'

Publishing in WAN Manager

In SAFARI Montage, 'publishing,' is the act of sharing uploaded CreationStation™ media to the district. The item's distribution to child servers is dependent upon two settings on the parent server called 'publish uploaded media to district' and 'approval required.' If the 'approval required' checkbox is active, the published item goes into a temporary holding area on the local server until it is approved by the administrator or any user designated as an 'Approver.' Once approved, the content is distributed to the parent server and all child servers. If the 'approval required' checkbox is inactive, the content is automatically passed through to the child servers as the transfer schedule allows.

Note: Sharing an item on a remote school server does not cause content to travel to the parent and sibling servers. It only shares the item with other users within your school. It must be published in order for the parent and sibling servers to receive the item.

Dashboard in WAN Manager

Descriptions of the dashboard panels relating only to WAN Manager are below. Panels that are common to all SAFARI Montage configurations, such as My Recent Playlists and My Recent Videos, are described in the SAFARI Montage Users Guide.

School Playlists Tab

The School Playlists panel contains playlists that have been recently shared locally with your school on your SAFARI Montage server.

District Playlists Tab

The District Playlists panel contains playlists that have been recently shared with the district; in other words, they have been shared remotely with your SAFARI Montage server.

School News Tab

This panel houses a list of uploaded videos that are marked as school news. Only users in the Administrator group may flag uploaded content as school news. Media flagged as school news may be shared exactly like other media in the system. This means a district-level administrator could create school news and share it with all of the dependent schools, both locally on the parent server and on remote child servers.

To create a school news media title, check the School News checkbox on the media upload or edit page for any piece of media uploaded with CreationStation™.

Received Content Tab

This panel contains your recently completed media-file transfers from other remote SAFARI Montage servers.

Search in WAN Manager

Outlined below are descriptions of the search options that are relevant to the WAN Manager module only. Search options that are common to all SAFARI Montage configurations are described in the SAFARI Montage User Guide.

The search criteria always remain set on your last selections. To reset the search back to the default criteria, click the 'Reset Search' link at the bottom of the page near the Search button.

Uploaded By

This filter allows you to show only media uploaded by a particular user.

School News

Activating this checkbox will show only upload titles marked as school news.

School

To view only media uploaded by a particular school, select a school from this drop-down list.

Location

This drop-down list has three options: 'All,' 'Local' and 'Remote.' Local shows you only media titles (including those from direct schools) that were uploaded to your local SAFARI Montage server. Remote shows you only titles that were shared to your server from external servers.

Newly Received

Activating this checkbox will show you titles that have recently finished transferring from remote SAFARI Montage servers.

WAN Expansion

Overview

WAN Expansion is a load-balancing feature for SAFARI Montage WAN Manager. It enables a WAN Manager parent server to be clustered with other SAFARI Montage servers, thereby increasing the overall concurrent user capacity of the parent server.

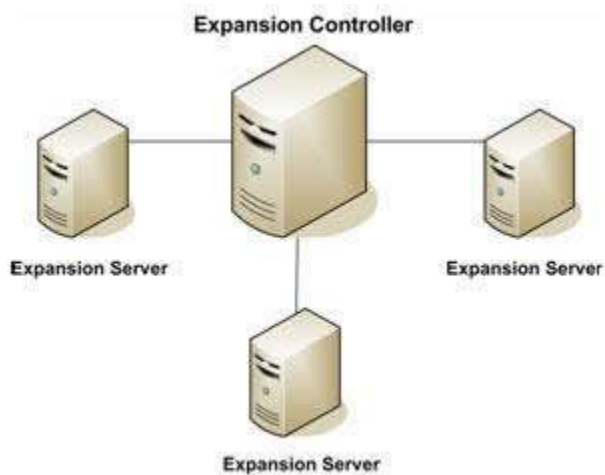
Server Types

- **Expansion Controller**

The Expansion Controller facilitates all user logins and distributes users evenly across all servers in the cluster, including the controller itself. Any WAN Manager parent server can become an Expansion Controller by activating a software license for the Expansion Controller module.

- **Expansion Servers**

Expansion Servers are members of a cluster managed by the Expansion Controller. Expansion Servers cannot be logged into directly by users. All users connect and log in to the Expansion Controller directly. The Expansion Controller then hands off its connection to any server that is a member of the cluster. This is done behind the scenes and is not apparent to the end user. Any SAFARI Montage server can become an Expansion Server by activating a software license for the Expansion Server feature.



- **School**

To view only media uploaded by a particular school, select a school from this drop-down list.

- **Location**

This drop-down list has three options: ‘All,’ ‘Local’ and ‘Remote.’ Local shows you only media titles (including those from direct schools) that were uploaded to your local SAFARI Montage server. Remote shows you only titles that were shared to your server from external servers.

- **Newly Received**

Activating this checkbox will show you titles that have recently finished transferring from remote SAFARI Montage servers.

Activating WAN Expansion Module

The WAN Expansion Server and Expansion Controller modules are activated in the same manner as WAN Manager modules. See [‘Activating WAN Manager Add-On Modules,’](#) earlier in this document for complete instructions on the activation process.

Expansion Controller Settings

Once the Expansion Controller module is active on the controller, an ‘Expansion’ submenu will appear under the WAN Manager menu in the Admin area of SAFARI Montage.

Clicking this submenu reveals the two sections that are specific to Expansion Controller management: Controller Settings and Expansion Servers. Controller Settings contains a single checkbox called ‘Load balance usage across expansion servers.’ This checkbox activates and deactivates all WAN Expansion load-balancing functions.

Expansion Controller Settings

Clicking the ‘Expansion Servers’ submenu button displays a page listing all Expansion Servers that are currently connected to this controller. To log in to an Expansion Server to manage its settings, click the ‘Expansion Server (000000)’ link. The six zeros represent the serial number for that Expansion Server. You must use this link to log in to the Expansion Servers. If you attempt to log into the Expansion Server’s direct IP or hostname, you will be redirected back to the controller.

Also listed is each Expansion Server's version, serial number, IP address, last synchronization time, percent synchronized, usage rate and a remove function. Serial Number and IP Address are self-explanatory, so descriptions of the other five columns are listed below.

- **Version**

Versions of the SAFARI Montage software must match between servers in the expansion cluster. The 'Software Update' submenu item is available on controllers and Expansion Servers. The software update is performed in the same manner as on SAFARI Montage standalone servers.

- **Database Synchronized**

The databases between servers in the cluster are synced every four minutes. The 'Database Synchronized' column lists how long ago the database for that expansion server was synced.

When a user makes any changes to data, those changes will not migrate to other servers in the cluster until the sync process occurs again.

- **% Synchronized**

The '% Synchronized' column indicates the current level of synchronization between servers in the cluster. A sync level of 100% means that the Expansion Server's database is completely synchronized with the other servers in the cluster.

If the sync level is below 100%, there exists some temporary data disparity between servers. During this two- to four-minute period of asynchrony, users may see some differences in data between servers. For example, if a user makes a change to the title of their uploaded media, then immediately asks another user to look for those changes and the other user is connected to a different server in the cluster, that user will not see the changes until the next sync occurs.

- **Usage**

The 'Usage' column indicates how utilized that Expansion Server has been in relation to the other servers. For example, if you have a two-server cluster (one controller and one Expansion Server), you should see usage at approximately 50%, because load is distributed evenly between two servers.

- **Disconnecting Expansion Servers**

The 'Clear' link is used to remove an Expansion Server from the list after the Expansion Server is disconnected from the controller. The 'Clear All' link removes all Expansion Servers from the list.

It is important to understand that disconnecting an Expansion Server from the cluster is a two-step process. First, the Expansion Server must be disconnected from the controller by removing

the controller's hostname or IP from the Expansion Server Settings page. Once that is complete, the 'Clear' link is used on the controller to remove the Expansion Server from the list. If the 'Clear' link is used without first disconnecting the Expansion Server, the Expansion Server will reappear in the list when the sync process executes again.

Expansion Server Settings

Once the Expansion Server module is active, an 'Expansion Server' submenu will appear under the WAN Manager menu in the Admin area of SAFARI Montage. Since an Expansion Server is essentially a drone of the controller, many of the usual SAFARI Montage Admin functions are unavailable.

- **Back to Controller**

The 'Back to Controller' button will return you to the Settings area of the controller.

- **Server Settings**

The 'Server Settings' submenu button displays a page with data similar to what was shown on the controller: version number, last synchronization data/time, synchronization progress and a text box for the hostname or IP of the Expansion Controller.

- **Status**

The Status link displays a real-time progress bar of the active sync.

- **Login**

Once a controller has been successfully connected, the Login link will take you to the Login page of the controller.

Connecting Expansion Server to Controller

To connect an Expansion Server to a controller, click 'Server Settings.' Enter the IP address or hostname of the controller into the text box labeled 'Expansion Controller (IP or Computer Name),' and click the 'Update' button. A confirmation page will appear to verify that you wish to perform this action. If you confirm, the servers will connect and begin the synchronization process.

Important: The sync process can take up to several hours (or a day), depending upon speed of hardware and the amount of data that needs to sync.

