



HELIUS MEDIAGATE SERVER

PROVIDER MANUAL

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SECTION 1

OVERVIEW

The Helius MediaGate Server comes equipped to support MediaGate Routers on a network. To allow for the greatest flexibility and use of the network, Helius provides several user level account for the server:

- **Support**
A Support User is primarily responsible for setup and configuration of the MediaGate Server and Routers, and arranging with the client to assign the appropriate bandwidth availability to their account. Support level access creates Providers.
- **Provider**
A Provider is a client or customer requiring the ability to create and send packages, add receivers and provide authorizations. A Provider is responsible for the content that needs to be delivered and the creation and sending of those packages.
- **SiteAdmin**
SiteAdmin is a limited access level.

This manual is intended to provide instructions for Provider level access to server functions. This manual assumes a basic understanding of web-based interfaces and how to interact with them. For details on Provider level functions for MediaSignage, please refer to the MediaGate Server MediaSignage Provider Manual.

This manual is designed for either CD-based use or printing for hard copy. Please use the bookmarks table of contents to navigate this PDF.

Legal Declarations

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Versioning

MediaCore 2.8.2/3

MediaWrite 2.0

Safety

The MediaGate Server contains parts connected to a power supply. Customers should never open the covers of a Server. No internal parts are intended to be field serviceable.



Electric shock hazard. Potentially lethal voltage.

Electrical safety measures should be used when working with the MediaGate Server.



The following safety and caution procedures should be followed when working with or installing a Helius MediaGate Server.

- Do not expose the internal parts of the Server.
- Do not subject the Server to physical shock or vibration.
- Allow the Server to stabilize to room temperature before connecting and powering up.
- Prevent exposure to extreme hot or cold temperatures or moisture.
- Do not cover ventilation openings. Ensure air can circulate freely through ventilation openings.
- Do not allow fluids or objects to pass through ventilation openings.
- Do not place the Server close to an external source of heat or near devices generating magnetic fields.
- Never place the Server in direct sunlight or expose to rain and moisture. Short circuit may cause fire or hazard.
- Use a damp chamois leather or soft cloth for cleaning. Never use an abrasive cleaner or cloth.

Specifications

Dimensions

Height	4.29 cm (1.69 in)
Width	48.26 cm (19 in)
Depth	76.2 cm (30 in)
Weight	17.69 kg (39 lb) (maximum configuration)

Environmental Conditions

Temperature	
Operating Temperature	10° to 35° C (50° to 95° F)
Storage Temperature	-40° to 65° C (-40° to 149° F)
Relative Humidity	
Operating	8% - 85% non-condensing with a maximum humidity gradation of 10% / hour.
Storage	5% - 95% non-condensing
Maximum Vibration	
Operating	0.25 G at 3-200 Hz for 15 minutes
Storage	0.5 G at 3-200 Hz for 15 minutes
Maximum Shock	
Operating	One shock pulse in the positive z axis on each side of the system of 41 G for up to 2 ms.
Storage	Six consecutively executed shock pulses in the positive and negative x, y, and z axes, one pulse on each side of the system, of 71 G for up to 2 ms.
Altitude	
Operating	-16 to 3048 m (-50 to 10,000 ft)
Storage	-16 to 10,600 m (-50 to 35,000 ft)

Power

AC Power supply	
Wattage	550 W
Voltage	84-262 VAC, autoranging, 47-63 Hz, 7.6 A
Heat dissipation	2130 BTU/hr (theoretical maximum)
Maximum inrush current	Under typical line conditions and over the entire system ambient operating range, the inrush current may reach 25 A per power supply for 10 ms or less

What is a Provider?

Provider accounts are created by the Support level technician. One Provider may be created per server.

Provider accounts manage the data, channels and events available to their Routers.

A Provider is allowed to perform the following functions:

- Create receivers and groups
- Create and modify channels and events (Video Services)
- Set up Authorizations (Video Services)
- Create, modify and send MediaWrite packages (MediaWrite MediaBuilder)
- Create and modify encrypted networks (MediaLock)
- Add or remove receivers and groups from MediaWrite packages, events, networks and authorizations.
- Create users and make assignments for MediaTraining.
- Publish MediaTraining information and content to the network.
- Create clients, contracts, spots, playlists and schedules for managing and delivering MediaSignage.
- Publish MediaSignage schedules and content to the network.

These functions are integral to managing the data created and sent to Routers on the network.

The Provider password and username should be provided by the Support level technician. To perform the functions of a Provider, the user must login to the Server using a web-based client.

Using the Helius Management Console



A Main navigation menu

B Navigation bar

- 1 Main menu selection displays in the orange region of the navigation bar.
- 2 Main menu sub-selection displays in the gray region of the navigation bar.
- 3 Navigation bar selections display in the gray region when selected.

The selection above is written: **MediaWrite** > **MediaBuilder** > **Package Manager** when referenced in this manual. Refer to the typographical conventions and symbols pages for more information.



Typographical Conventions


Typographical conventions in this manual are used to show the link path that should be selected in the Helius Management Console to perform an action.

	Example	Description	Explanation
A	<u>MediaWrite</u>	Bold, Underlined	Navigation menu link.
B	<u>Connections</u>	Bold, Underlined, Oblique	Navigation bar link.
C	<i>Daemons</i>	Oblique	Heading title of a section of the Console page.
D	<i><u>DialAccess</u></i>	Oblique, Underlined	Title of a link within the Management Console.
E	START	All caps	Button on the Management Console.
	Overview	Blue, bold, 14, 12 or 11 pt typesize	Headings for manual organization and table of contents/bookmarks.



Symbols

Symbol	Meaning
>	Link path. Indicates link selections in the Helius Management Console to display the correct screen
↓	Part of the link path. Indicates to scroll down the Console screen to the specified heading.
	Note Icon.
	Attention Symbol. Indicates caution should be taken.

 The screen graphics in this manual are obtained using MS Internet Explorer 6.0. The appearance of windows in other browser versions may vary slightly but will function the same.

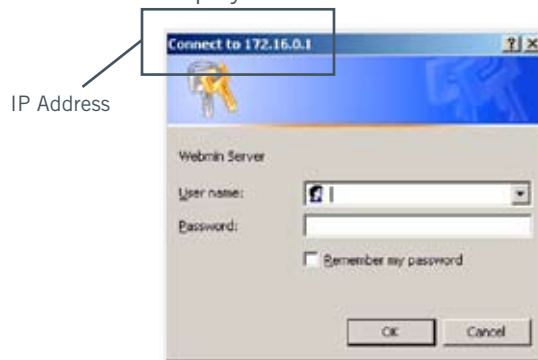
Login to MediaGate Server

To access the MediaGate Server, the IP address of the Server is required.

1. Launch a web browser.
2. Specify the IP address of the equipment followed by “:1000” For example: “http://IP_address:1000”.



The login window will display.



The IP address specified will display in the upper left hand corner of the login screen. Enter the appropriate user name and password. The Support level technician creates the Provider account including username and password. Please refer to your support level technician for this information.

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SECTION 2

RECEIVERS AND GROUPS

Overview

The Provider adds each Router to the Server database. To add Routers, the IP address and MAC address of each Router for each site is required.

Gather Router Information

The following information is required to create a receiver:

- IP address of Router interface
- MAC address (HW address) of the Router interface
- Name to identify each Router (this is defined by the Provider)
- Contact information at each site where each Router is located (optional).

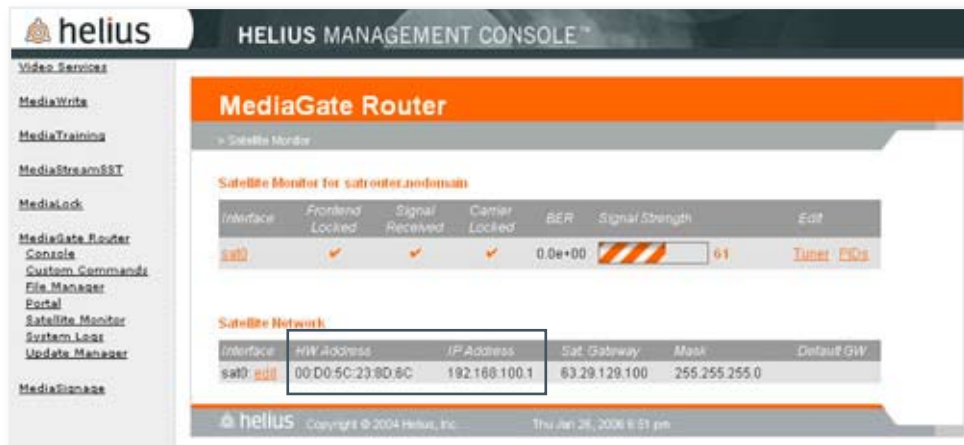
The MAC and IP address may be obtained using the Support level login to the Router. Obtain the MAC and IP information of each Router from the Support level technician or perform the steps on page 2-2.

With groups and receivers defined, the features of Channel Editor and Authorizations in Video Services, package creation and management in MediaWrite, Organizations in MediaTraining and encryption in MediaLock may be used.

MediaSignage requires a MediaWrite group to be created for its use, but all receivers will be created and defined in MediaSignage. Subgrouping cannot be used with MediaSignage.

Identify Sat0 MAC and IP

1. Login to the Router using Support level access.
2. Select **MediaGate Router** > **Satellite Monitor** to obtain the sat0 information.



The screenshot shows the Helius Management Console interface. The main content area is titled "MediaGate Router" and "Satellite Monitor". It displays a table for the Satellite Monitor and a table for the Satellite Network. The IP and MAC addresses for the sat0 interface are highlighted.

Interface	Frontend Locked	Signal Received	Carrier Locked	BER	Signal Strength	Edit
sat0	✓	✓	✓	0.0e+00	61	Timer PING

Interface	HW Address	IP Address	Sat. Subway	Mask	Default GW
sat0	00D05C238D8C	192.168.100.1	63.29.129.100	255.255.255.0	

3. Copy the IP and MAC addresses for sat0 interface.

Identify Eth0 MAC and IP

1. Login to the Router using Support level access.
2. Select **MediaGate Router** > **Configuration** > **Generate Report** to obtain the eth0 information.



The screenshot shows the Helius Management Console interface. The main content area is titled "MediaGate Router" and "Configuration". The "Generate Report" button is highlighted. A terminal window shows the output of the "show interfaces" command, with the configuration for the eth0 interface highlighted.

```
*** Running Interfaces ***
eth0  Link encap:Ethernet HWaddr 00:40:63:D8:B6:1D
       inet addr:192.168.0.1 Bcast:192.168.255.255 Mask:255.255.0.0
       UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
       RX packets:3200 errors:0 dropped:0 overruns:0 frame:0
       TX packets:3314 errors:0 dropped:0 overruns:0 carrier:0
       collisions:0 txqueuelen:100
       Interrupt:11 Base address:0x0000

eth0:0 Link encap:Ethernet HWaddr 00:40:63:D8:B6:1D
        inet addr:172.16.254.1 Bcast:172.16.254.3 Mask:255.255.255.252
        UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
        Interrupt:11 Base address:0x0000

lo     Link encap:Local Loopback
       inet addr:127.0.0.1 Mask:255.0.0.0
       UP LOOPBACK RUNNING MTU:16384 Metric:1
       RX packets:729196 errors:0 dropped:0 overruns:0 frame:0
       TX packets:729196 errors:0 dropped:0 overruns:0 carrier:0
       collisions:0 txqueuelen:0

sat0   Link encap:Ethernet HWaddr 00:80:5C:23:8D:8C
       inet addr:192.168.100.1 P-t-P:63.29.129.100 Mask:255.255.255.0
       UP POINTOPOINT RUNNING NOARP MULTICAST MTU:1500 Metric:1
       RX packets:1492119 errors:0 dropped:0 overruns:0 frame:0
       TX packets:0 errors:255 dropped:0 overruns:0 carrier:255
       collisions:0 txqueuelen:64
       Interrupt:11 Memory:de003000-de0031ff
```

3. Copy the IP and MAC addresses for eth0 interface.

Groups

Planning groups carefully will help enable delivering content to the largest number of Routers in the easiest fashion possible. When defining a group, keep in mind the kinds of authorizations, events and encryption that will be used.

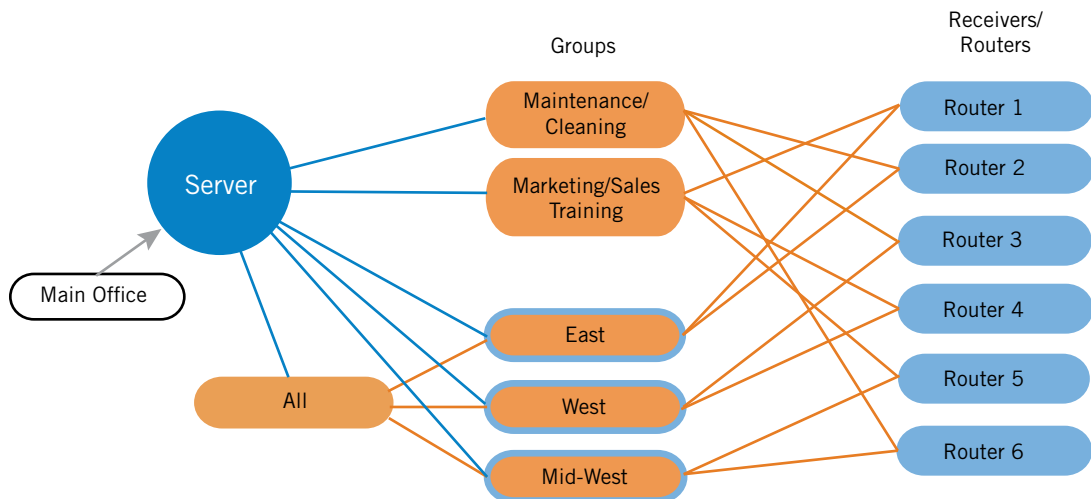
Examples of ways to organize groups:

- Regional
- Purpose or usage type
- Company divisions such as departments (marketing, sales, technical services or women's fashions, children's clothing, shoes)

Do not limit groups to these examples. How groups of Routers are defined on a network depends on the need of delivery. Each Router in a group will receive access permissions granted to that group. If a group consists of several Routers or several groups of Routers, they will all receive the same access and authorizations granted to that group.

EXAMPLE

Ways to group:	By Location			By Function		All
Groups	East	West	Mid-West	Marketing/Sales Training	Maintenance/Cleaning	ALL
Group Members	#1 #2	#3 #4	#5 #6	#5 #4 #1	#3 #2 #6	East West Mid-West



- ☰ If creating a group for MediaTraining or MediaSignage purposes, title the group so that it is clearly identified as a MediaTraining or MediaSignage group.

Create a Receiver

1. Select **MediaWrite** > **MediaBuilder** > **Groups/Receivers**.



2. Select **Create Receiver**.

The screenshot shows the 'Create New Receiver' dialog box. It has a title bar 'Create New Receiver' and a section 'Receiver Properties'. Under this section, there are several fields: 'Descriptive Name' (marked with an asterisk as required), 'E-mail Address', 'Contact Name', 'Telephone Number', 'Hardware Address', and 'IP Address' (also marked with an asterisk as required). Below these fields are three checkboxes: 'Encrypt unicast to this receiver', 'Add SST', and 'Group Receiver and SST'. At the bottom of the dialog are four buttons: 'Save and Create New', 'Save Receiver', 'Save and Edit Memberships', and 'Cancel'.

* = required field

3. Enter the necessary information. A unique descriptive name, MAC and IP addresses are the only required fields. Enter other information if desired.

If encryption is available and MediaLock is licensed, activate (✓) the checkbox to enable unicast.

If an SST is to be used with this receiver, activate (✓) the checkbox next to “Add SST” to identify the SST.

4. Select **SAVE AND CREATE NEW** if adding another receiver.
Select **SAVE AND EDIT MEMBERSHIPS** to add this receiver to a group.
Select **SAVE RECEIVER** to add this receiver and return to the Groups/Members page.

Create a Group


1. Select **MediaWrite** > **MediaBuilder** > **Groups/Receivers**.



2. Select **Create Group**.

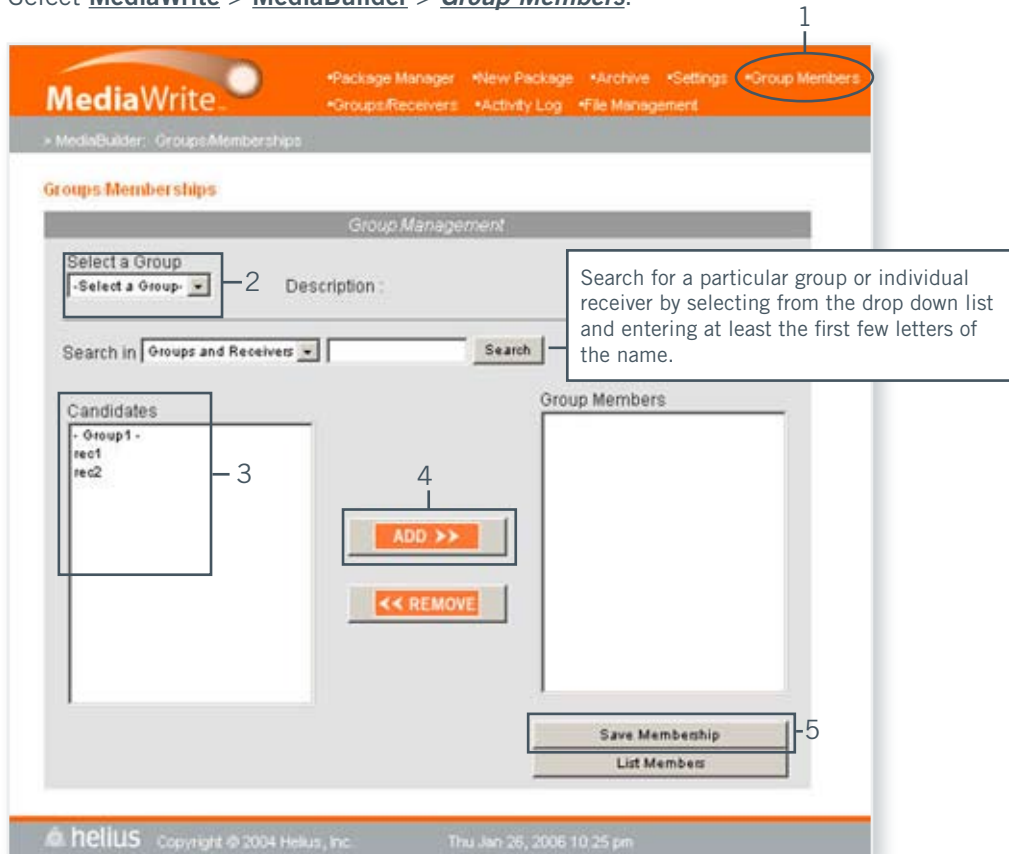


3. Enter group name and description.
4. Select SAVE GROUP.

 To begin adding this group to other groups, select EDIT MEMBERSHIPS after saving the group. If EDIT MEMBERSHIPS is selected before saving, the option will be provided to save the changes made to the group. If the group is not saved, the new group will not be created.

Add Receivers to Groups

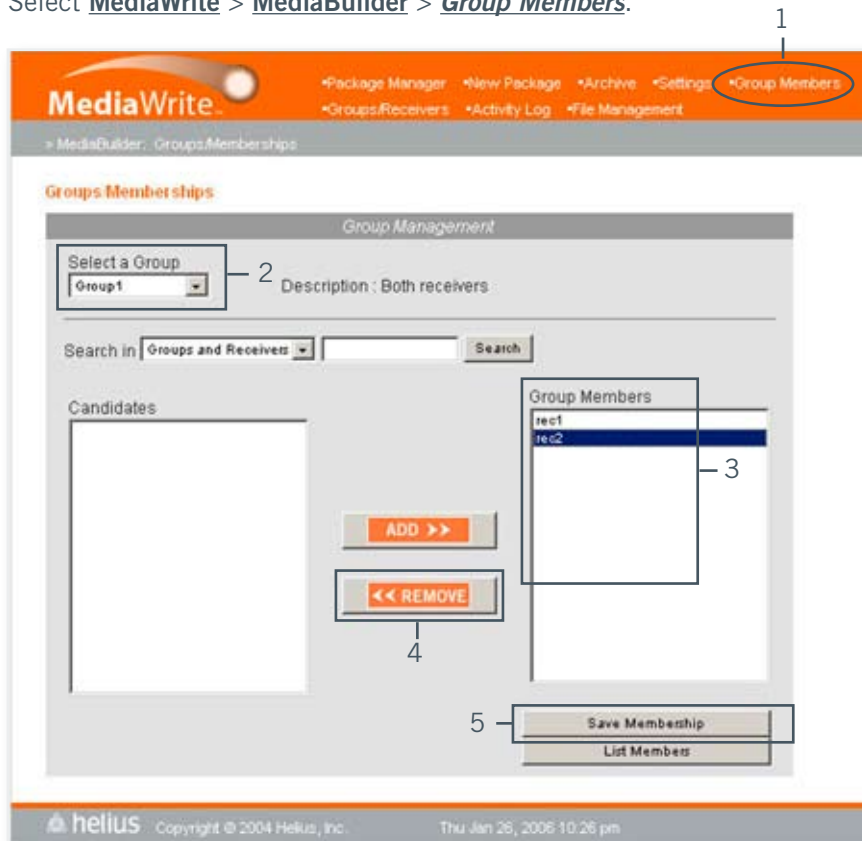
1. Select **MediaWrite** > **MediaBuilder** > **Group Members**.



2. Use the drop down menu to select a group. Once a group is selected, the current group members will display in the Group Members column on the right. Candidates for adding to the group membership will display in the Candidates column on the left.
3. Highlight selected groups or receivers listed in the Candidates column. Groups are displayed using “_” (quotes) around the title. Multiple candidates can be selected by holding the CTRL key down while selecting each candidate.
4. Select ADD>>.
5. Select SAVE MEMBERSHIP.

Remove Receivers from a Group

1. Select **MediaWrite** > **MediaBuilder** > **Group Members**.



2. Select a group. Current group members will display in the Group Members column on the right.
3. Highlight selected group or receiver in the Group Members column. Groups are displayed using “_” (quotes) around the title. Multiple members can be selected by holding the CTRL key down while selecting each member.
4. Select <<REMOVE.
5. Select SAVE MEMBERSHIP.

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SECTION 3

CHANNELS AND EVENTS

Overview

A channel is a multicast stream with an associated name and channel number.

An event is a program that is available on a channel. The program will display in the Electronic Program Guide (EPG) to the end user provided the event has been appropriately setup to be announced.

Channels



The Channel Editor page provides a snapshot of information about the channels available and the ability to open the create a channel page.

ID-Channel Name

Channel Name and ID is determined when the channel is created.

Multicast Address

Multicast address identified in Create a Channel.

Encrypted

If MediaLock is used, and the channel is selected for encryption, a lock icon will display indicating that encryption is active. Encryption can be removed by editing the channel.

Authorizations

Event and Channel authorizations can be selected from this interface. Refer to Authorizations in this manual for more information.

Events

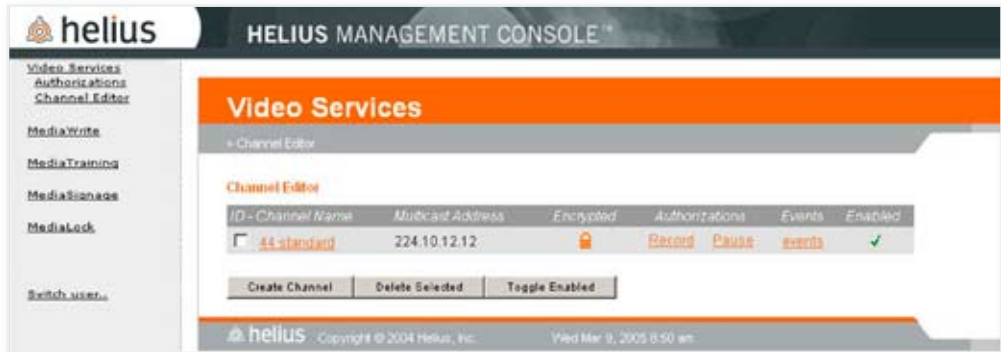
Events can be created and edited through this page.

Enabled

A green checkmark in this column indicates the channel is active and enabled. A channel may be disabled temporarily and re-enabled at a later date or deleted.

Create a Channel

1. Select **Video Services** > **Channel Editor**.



2. Select CREATE CHANNEL.

The screenshot shows the 'Create Channel' dialog box. It has a title bar 'Create Channel' and a section 'Channel Settings'. The settings are organized into two columns. The left column contains: Channel Name (text input), Channel ID (text input), Multicast Address (text input), and Multicast Port (text input). The right column contains: SAP Port (text input with value '9075'), SAP TTL (text input with value '5'), and SAP Multicast Address (text input with value '224.127.254'). Below the Channel Settings is a section 'MediaLock Encryption' with three radio buttons: 'Encrypt', 'Clear', and 'None' (which is selected). At the bottom of the dialog are two buttons: 'Save Settings' and 'Cancel'.

3. Specify the Channel Name, ID and multicast address. Channel ID is the number or 4-digit ID that represents the channel. This should be a unique number.

The SAP information will be imported from the SAP configuration settings and should not be modified.

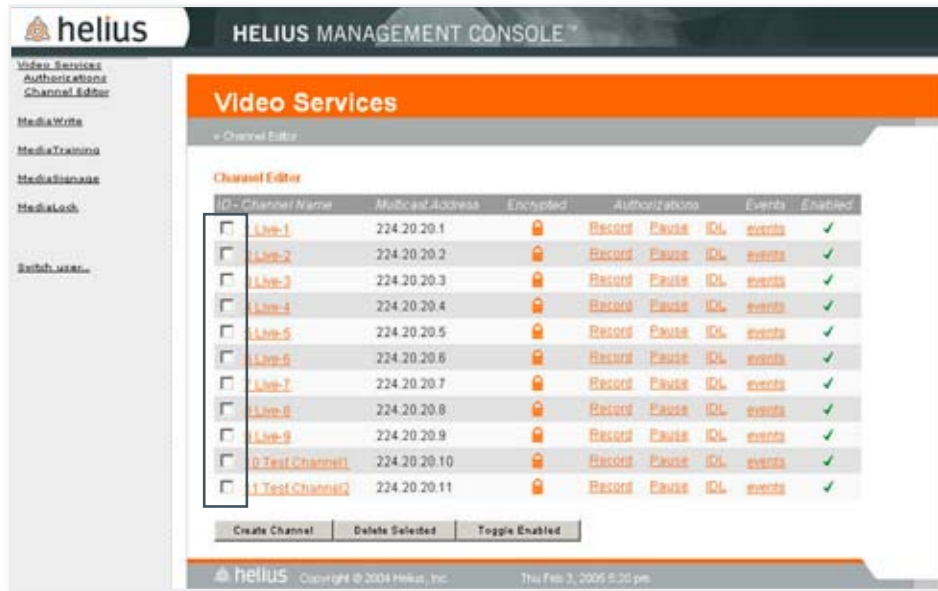
4. Select SAVE SETTINGS.

Edit a Channel

To edit a channel, open **Video Services** > **Channel Editor** and select the orange highlighted link under *Channel Name*.

Delete a Channel

1. Select **Video Services** > **Channel Editor**.



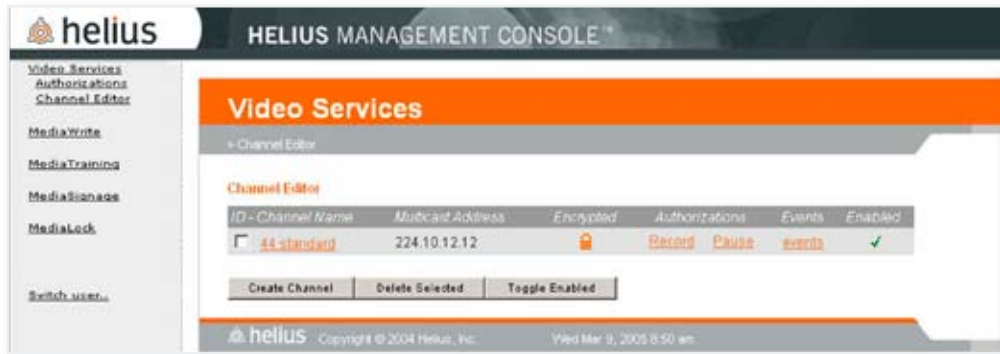
2. Activate (✓) the checkbox to the left of the channel to be deleted.
3. Select DELETE SELECTED.

Events

Creating an event allows viewers to see when particular broadcasts or shows will begin and end. If Authorizations is being used, only authorized receivers will be allowed to view the advertised event.

Create an Event

1. Select **Video Services** > **Channel Editor**.



2. Select **Events** next to the channel broadcasting the event.



3. Select CREATE EVENT.

Specify Event Name, Description, Start Time and Duration.

If this event is a pre-recorded file, identify the file name in the Playback File field.

If an event is to play several times or at multiple times, select the correct option and identify the criteria. (See next page.)

Select Force Record for each receiver to automatically record the event.

Provide a deletion date for the file, if desired.

Identifying a SAP address restricts the event to broadcast only on that SAP address.

OneTouch Host Name is only available on receivers with IDL capability. Providing a Host Name will cause the Router to attempt login to that site controller prior to event start time.

Color code, country, content description: If available, select descriptions for this event. The color code identifies the color this event will display as in the EPG.

If MediaLock is licensed, select encryption level.
 ENCRYPT - event only encryption
 SERVICE ENCRYPT - encrypt if channel is encrypted
 CLEAR - allow no encryption
 NONE - allow no encryption for this event only


4. Select SAVE SETTINGS.



Multiple Time and Repeat Time Events

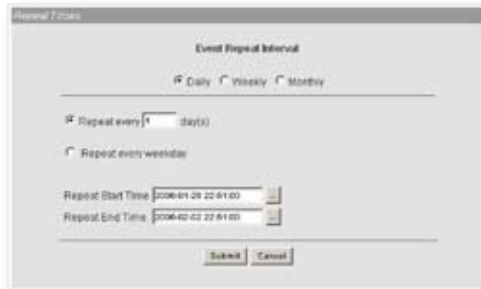
To set an event to occur at multiple times or repeat the event a specified number of times, select either Multiple Time or Repeat Time on the Create Event page.

Multiple Time Event



1. Select a date by using the ... button to display the date selection popup.
2. Select ADD to add the date and time to the list of Start Times.
3. When all the dates and times have been added, select SUBMIT.
4. To remove a date and time, highlight the date and time in the Start Times list and select DELETE.

Repeat Time Event



1. Select the Repeat interval: Daily, Weekly or Monthly.
2. Identify the remaining repeat criteria.
3. Select SUBMIT.

Edit an Event

To edit an event, open [Video Services](#) > [Channel Editor](#) and select the orange highlighted link under *Events*. Once in the Events page, select the name of the event from the *Event Name* column.

Search for Event

1. Select **Video Services** > **Channel Editor**.

helius HELIUS MANAGEMENT CONSOLE™

Video Services
Authorizations
Channel Editor
MediaWrite
MediaTraining
MediaStorage
MediaLock
Switch user...

Video Services

> Channel Editor

Channel Editor

ID-Channel Name	Multicast Address	Encrypted	Authorizations	Events	Enabled
<input type="checkbox"/> 1 Live-1	224.20.20.1		Record Pause IDL	events	✓
<input type="checkbox"/> 2 Live-2	224.20.20.2		Record Pause IDL	events	✓
<input type="checkbox"/> 3 Live-3	224.20.20.3		Record Pause IDL	events	✓
<input type="checkbox"/> 4 Live-4	224.20.20.4		Record Pause IDL	events	✓
<input type="checkbox"/> 5 Live-5	224.20.20.5		Record Pause IDL	events	✓
<input type="checkbox"/> 6 Live-6	224.20.20.6		Record Pause IDL	events	✓
<input type="checkbox"/> 7 Live-7	224.20.20.7		Record Pause IDL	events	✓
<input type="checkbox"/> 8 Live-8	224.20.20.8		Record Pause IDL	events	✓
<input type="checkbox"/> 9 Live-9	224.20.20.9		Record Pause IDL	events	✓
<input type="checkbox"/> 10 TestChannel1	224.20.20.10		Record Pause IDL	events	✓
<input type="checkbox"/> 11 TestChannel2	224.20.20.11		Record Pause IDL	events	✓

Create Channel Delete Selected Toggle Enabled

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2. Select **Events** in the **Events** column of the channel.


standard Submitted Events

ID-Event Name	Start Time	Authorizations	Disable
<input type="checkbox"/> 2 snowmans	2005-03-09 09:00:00	Tune Single Tune	<input type="checkbox"/>

Create Event Delete Selected

Display View Date Go

Broadcasting Events

3. Select from the drop down menu next to “Display.”  OR
Identify the View Date. This will default the Display type.
4. Select GO. All events within the criteria set will be displayed.

Disable Event

1. Select **Video Services** > **Channel Editor**.

The screenshot shows the Helius Management Console interface. On the left is a navigation menu with options: Video Services, Authorizations, Channel Editor (selected), MediaWrite, MediaTraining, MediaStorage, MediaLock, and Switch user... The main content area is titled 'Video Services' and 'Channel Editor'. It contains a table with the following columns: ID - Channel Name, Multicast Address, Encrypted, Authorizations, Events, and Enabled. The 'Events' column is highlighted with a red box. Below the table are buttons for 'Create Channel', 'Delete Selected', and 'Toggle Enabled'. The footer shows 'helius Copyright © 2004 Helius, Inc. Thu Feb 3, 2005 5:20 pm'.

ID - Channel Name	Multicast Address	Encrypted	Authorizations	Events	Enabled
<input type="checkbox"/> 1 Live-1	224.20.20.1		Record Pause IDL	events	✓
<input type="checkbox"/> 2 Live-2	224.20.20.2		Record Pause IDL	events	✓
<input type="checkbox"/> 3 Live-3	224.20.20.3		Record Pause IDL	events	✓
<input type="checkbox"/> 4 Live-4	224.20.20.4		Record Pause IDL	events	✓
<input type="checkbox"/> 5 Live-5	224.20.20.5		Record Pause IDL	events	✓
<input type="checkbox"/> 6 Live-6	224.20.20.6		Record Pause IDL	events	✓
<input type="checkbox"/> 7 Live-7	224.20.20.7		Record Pause IDL	events	✓
<input type="checkbox"/> 8 Live-8	224.20.20.8		Record Pause IDL	events	✓
<input type="checkbox"/> 9 Live-9	224.20.20.9		Record Pause IDL	events	✓
<input type="checkbox"/> 10 TestChannel1	224.20.20.10		Record Pause IDL	events	✓
<input type="checkbox"/> 11 TestChannel2	224.20.20.11		Record Pause IDL	events	✓

2. Select **Events** in the **Events** column of the channel.

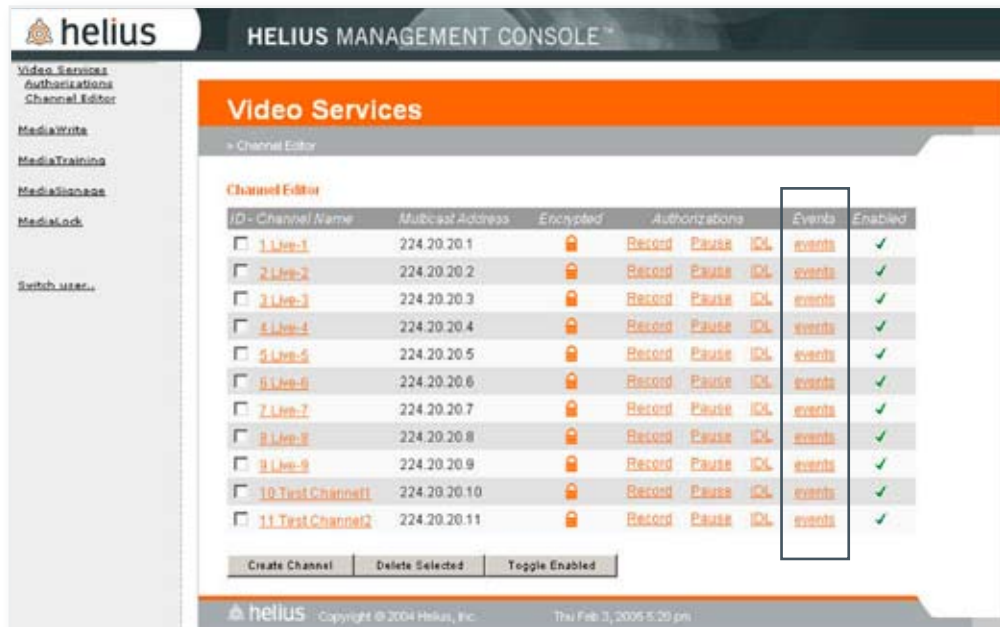
The screenshot shows the 'standard Submitted Events' interface. It features a table with columns: ID - Event Name, Start Time, Authorizations, and Disable. The 'Disable' column for the event '2 snowmans' is highlighted with a red box. Below the table are buttons for 'Create Event' and 'Delete Selected'. At the bottom, there is a 'Display' dropdown menu set to 'Current Events', a 'View Date' field set to '2005-03-09', and a 'Go' button. Below the table is a link for 'Broadcasting Events'.

ID - Event Name	Start Time	Authorizations	Disable
<input type="checkbox"/> 2 snowmans	2005-03-09 09:00:00	Tune Single Tune	<input type="checkbox"/>

3. Activate (✓) the checkbox in the **Disable** column of the event.

Delete Event

1. Select **Video Services** > **Channel Editor**.



The screenshot shows the Helius Management Console interface. The left sidebar contains navigation links: Video Services, Authorizations, Channel Editor, MediaWrite, MediaTraining, MediaStorage, MediaLock, and Switch user... The main content area is titled 'Video Services' and 'Channel Editor'. It displays a table with the following columns: ID - Channel Name, Multicast Address, Encrypted, Authorizations, Events, and Enabled. The 'Events' column is highlighted with a black box. Below the table are buttons for 'Create Channel', 'Delete Selected', and 'Toggle Enabled'. The footer shows 'helius Copyright © 2004 Helius, Inc. Thu Feb 3, 2005 5:20 pm'.

ID - Channel Name	Multicast Address	Encrypted	Authorizations	Events	Enabled
<input type="checkbox"/> 1 Live-1	224.20.20.1		Record Pause IDL	events	✓
<input type="checkbox"/> 2 Live-2	224.20.20.2		Record Pause IDL	events	✓
<input type="checkbox"/> 3 Live-3	224.20.20.3		Record Pause IDL	events	✓
<input type="checkbox"/> 4 Live-4	224.20.20.4		Record Pause IDL	events	✓
<input type="checkbox"/> 5 Live-5	224.20.20.5		Record Pause IDL	events	✓
<input type="checkbox"/> 6 Live-6	224.20.20.6		Record Pause IDL	events	✓
<input type="checkbox"/> 7 Live-7	224.20.20.7		Record Pause IDL	events	✓
<input type="checkbox"/> 8 Live-8	224.20.20.8		Record Pause IDL	events	✓
<input type="checkbox"/> 9 Live-9	224.20.20.9		Record Pause IDL	events	✓
<input type="checkbox"/> 10 TestChannel1	224.20.20.10		Record Pause IDL	events	✓
<input type="checkbox"/> 11 TestChannel2	224.20.20.11		Record Pause IDL	events	✓

2. Select Events in the *Events* column of the channel.



The screenshot shows the 'standard Submitted Events' interface. It displays a table with the following columns: ID - Event Name, Start Time, Authorizations, and Disable. The 'Snowmans' event is selected with a checkbox. Below the table are buttons for 'Create Event' and 'Delete Selected'. At the bottom, there is a 'Display' dropdown menu set to 'Current Events', a 'View Date' input field set to '2005-03-09', and a 'Go' button. The 'Broadcasting Events' link is visible at the bottom.

ID - Event Name	Start Time	Authorizations	Disable
<input checked="" type="checkbox"/> Snowmans	2005-03-09 09:00:00	Tune Single Tune	<input type="checkbox"/>

3. Activate (✓) the checkbox to the left of the event name.
4. Select DELETE SELECTED.



SECTION 4

AUTHORIZATIONS

Overview

The Authorizations program allows restrictions to be set for record, pause and IDL features that can be used during a broadcast. Authorizations can be assigned to one or more Routers on a network-wide basis, or for a specified channel or event.

The Helius MediaGate Server is the Authorizations server and provides authorizations information for channel and program access to each assigned Router on the network. Authorizations data is multicast from the MediaGate Server to the Routers, therefore the Server and the Routers must be configured to the same multicast address. The multicast address is set by the Support level technician.

Using Groups, Routers are granted permissions through the Authorizations Server to record, perform pause on live broadcasts or view and participate in Interactive Distance Learning (IDL) programs.

Group Members are either given permission or denied permission to Record, Pause or login to an IDL channel.

Record

A Router or group of Routers may be granted permission or restricted from recording a specific channel or event.

Pause

Using a Helius MediaGate Router, Pause may be initiated during a live channel or event. The Router will automatically record the event when PAUSE is selected on the remote control, and begin delayed playback when PAUSE is reselected. Delayed playback may be skipped and the live event rejoined by selecting STOP on the remote control.

Using Authorizations, a Router or group of Routers may also be restricted from using the Pause feature during a live channel or event.

IDL

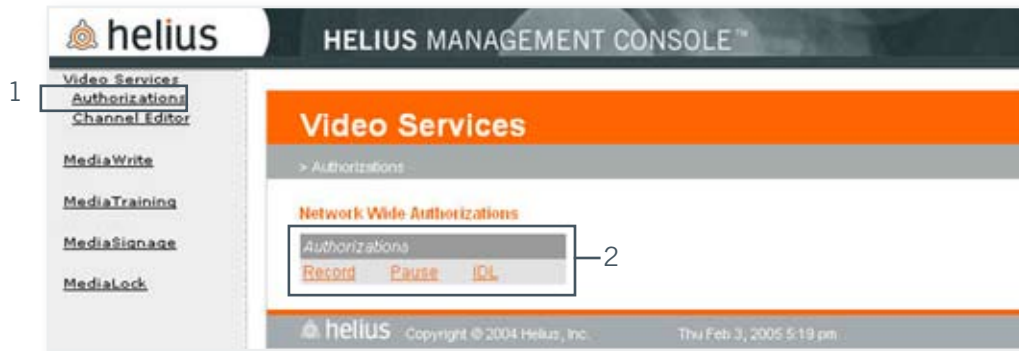
Routers may be restricted from accessing IDL channels or events. This feature is only available on Routers with MediaClassroom Live enabled. This authorizations feature allows the Provider to assign which IDL channels and events are viewable by selected Routers. The IDL selection will not display if MediaClassroom Live has not been purchased.

Network Wide Authorizations

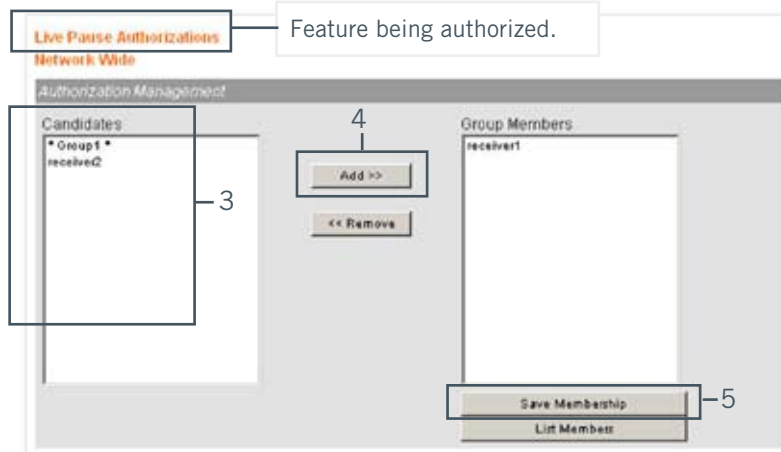
Groups and individual Routers may be assigned network-wide authorizations for record, pause and IDL functions. The interface for selecting groups and allowing each function is the same. Which feature you are authorizing or restricting will be noted in the upper left hand corner of the white screen. Candidates added to the group have permission to perform the function.

Add Receiver or Group

1. Select **Video Services** > **Authorizations**.



2. Select *Record*, *Pause*, or *IDL*.



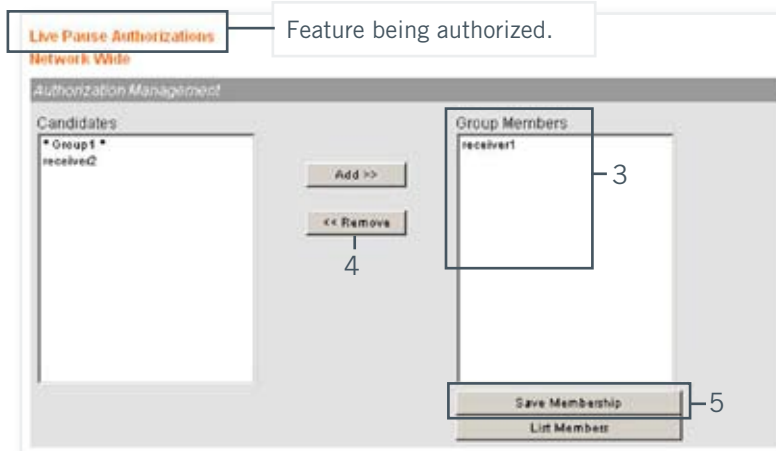
3. Select Candidates from the Candidates list in the left column. Multiple candidates can be selected by pressing CTRL while selecting each name.
4. Select ADD>>.
5. Select SAVE MEMBERSHIP.

Remove a Receiver or Group

1. Select **Video Services** > **Authorizations**.



2. Select *Record*, *Pause*, or *IDL*.



3. Highlight the receiver or group in the Group Members column.
4. Select <<REMOVE.
5. Select SAVE MEMBERSHIP.

Channel Specific Authorizations

Groups and individual receivers may be assigned channel specific authorizations. Authorization to record or pause may be given on a per channel basis instead of network wide. Candidates not on the Group Members list do not have permission to perform the function on that channel.

Add Receiver or Group

1. Select **Video Services** > **Channel Editor**.



2. Select **Record**, **Pause** or **IDL** in the Authorizations column of the channel. IDL will not display if the channel is not an IDL channel or if MediaClassroom Live is not a feature of the network.



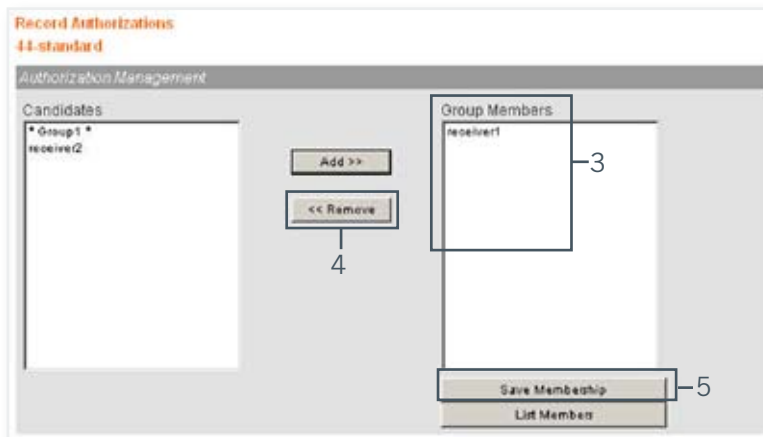
3. Select Candidates from the list in the left column. Multiple candidates may be selected by pressing CTRL while selecting each name.
4. Select ADD>>.
5. Select SAVE MEMBERSHIP.

Remove Receiver or Group

1. Select **Video Services** > **Channel Editor**.



2. Select **Record**, **Pause** or **IDL** in the Authorizations column of the channel. IDL will not display if the channel is not an IDL channel or if MediaClassroom Live is not a feature of the network.



3. Select current members from the Group Members list on the right. Multiple candidates may be selected by pressing CTRL while selecting each name.
4. Select <<REMOVE.
5. Select SAVE MEMBERSHIP.

Event Specific Authorizations

Groups and individual receivers may be assigned event specific authorizations. Using this step, a receiver or group of receivers may be forced to tune in to the event.

If an event is to be recorded, Force Record may be selected on the Edit Event or Create Event page. If Force Record is selected in the Create Event page, verify that receivers are authorized to record on that channel.



More than one event can be scheduled to force tune at the same time with the same group or receiver. In this case, a “race” condition can occur and not all authorized receivers may force tune to the same event.



The Edit Event page can be accessed directly from the Event Authorizations page by selecting the highlighted Event Name.

Authorize an Event to Tune

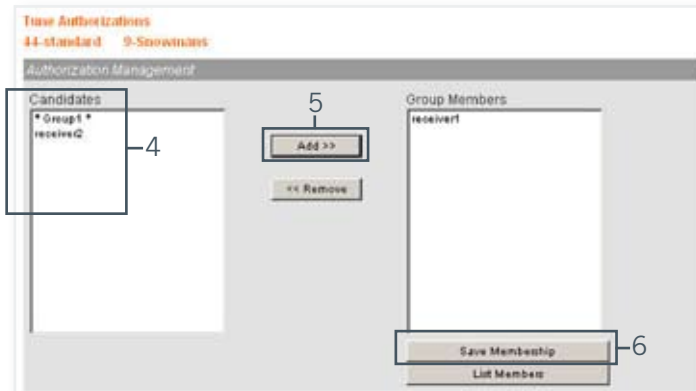
1. Select **Video Services** > **Channel Editor**.



2. Select **Events** in the **Events** column of the channel.



3. Select **Tune** or **Single Tune**.
Tune tunes a receiver for the duration of a specified event.
Single Tune tunes a receiver at the start of an event. With single tune, the channel may be changed after the beginning of the event.



4. Highlight the receivers or groups in the Candidates column.
5. Select ADD>>.
6. Select SAVE MEMBERSHIP.

Remove Event Authorization

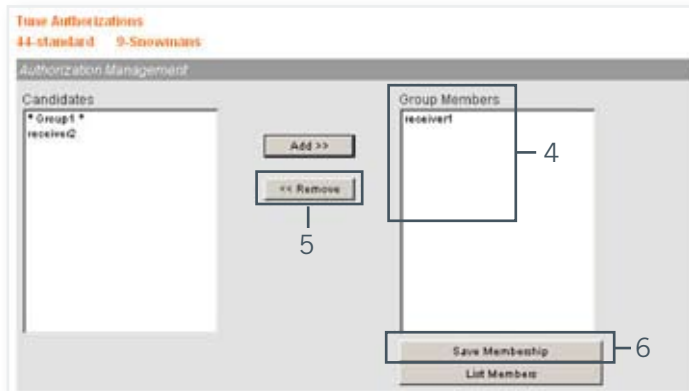
1. Select **Video Services** > **Channel Editor**.



2. Select Events in the *Events* column of the channel.



3. Select Tune or Single Tune.
Tune tunes a receiver for the duration of a specified event.
Single Tune tunes a receiver at the start of an event. With single tune, the channel may be changed after the beginning of the event.



4. Highlight the receivers or groups in the Group Members column.
5. Select <<REMOVE.
6. Select SAVE MEMBERSHIP.

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SECTION 5

MEDIAWRITE PACKAGES

Overview

MediaWrite™ is the Helius package delivery software tool.

Using MediaWrite, a Provider is allowed to:

- Transfer files from a personal computer to the server.
- Create package files, groups and receivers.
- Send packages from the MediaGate Server to MediaGate Routers on the network.
- Monitor and delete packages.
- Create and use templates for MediaWrite packages.

The Groups/Receivers and Group Members pages accessed through MediaWrite are the same pages accessible from Video Services and MediaLock (if enabled). Groups and receivers can be created in any of the interfaces.

Before creating packages to be sent to Routers on the network, the media files need to be uploaded to the Server hard drive. This can be performed using an FTP client, Samba share or File Management (in MediaWrite). Instructions for using File Management are given in “Transfer Files to Server” in this section.

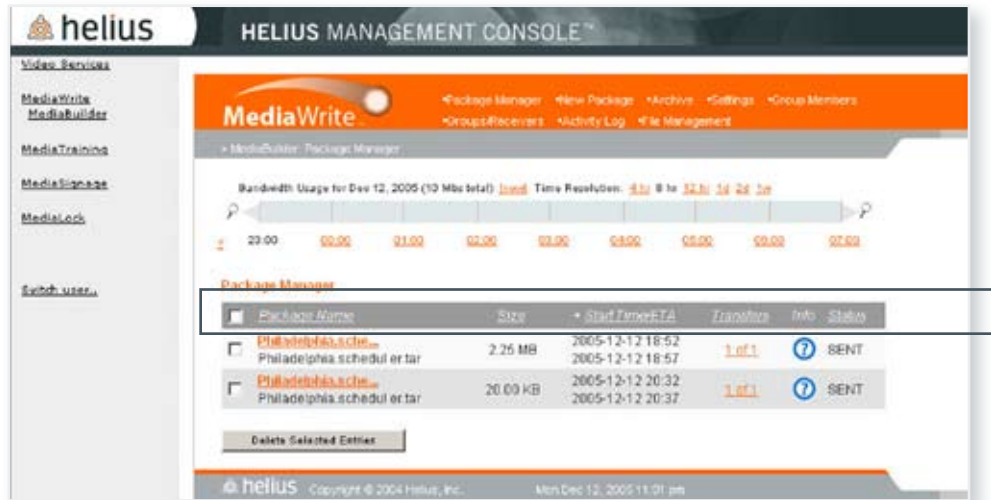
Transmission rates are the speed MediaWrite will attempt to send a file. This limit is set by the satellite administrator.



If using MediaSignage, create only the MediaSignage group within the MediaWrite interface. Create all receivers and zones within the MediaSignage interface. Groups and zones created in MediaSignage are not available to the MediaWrite/MediaLock interfaces.

Package Manager Interface

Package Manager is the default page for MediaWrite and will be used the most. This is an explanation of the basic information available on this page.



Package Name

The package name is the name given when the package is created. By selecting the highlighted link in the Package Name column, the Edit Package page will open and changes can be made to package information. Changes cannot be made once the file is in SENDING status.

Size

Size of package.

Start Time/ETA

Start time for package transfer and estimated time of delivery to the Router.

Transfers

Total number of transfers attempted.

Info

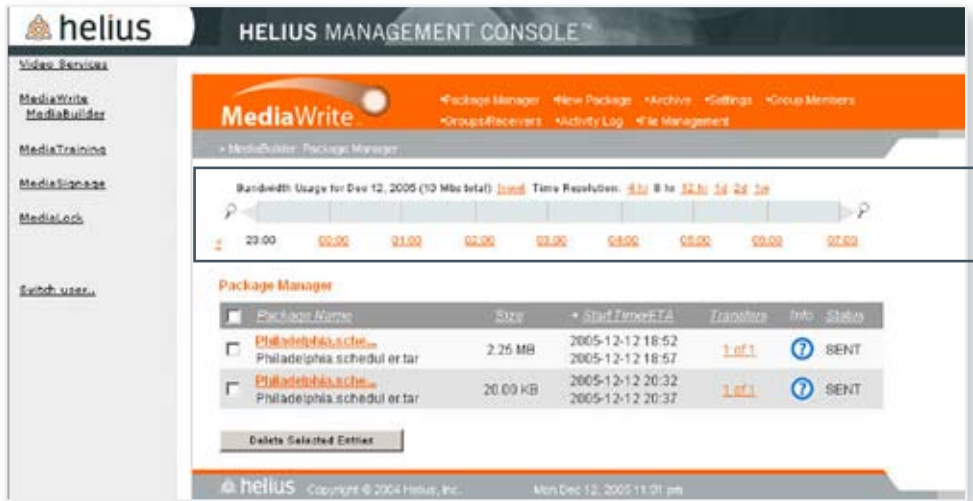
Select the Info  button for detailed information about the package.

Status

Current status of the package. Sent packages may be deleted and removed from the Server. Package information from deleted packages will be moved to Package Archive. See Appendix A: Glossary for a list of MediaWrite status messages. See Package Archive in this manual for instructions on how to permanently delete files off the Server.

Bandwidth Usage Graph

The Bandwidth Usage Graph provides a visual reference to your bandwidth usage allowing for greater control over management of package delivery.



Use the magnifying glass icon on either side of the graph to move forward or backward on the graph time scale.

Select the time span to display on the graph: 4, 8 or 12 hours, 1 or 2 days or 1 week

The ≤ performs the same function as the magnifying glass icon does.

Selecting a time link moves that time to become the visual beginning time (left) of the graph. The span of time displayed remains the same but begins at the selected time slot.

Selecting a spot on the bandwidth usage graph will open the New Package page with the start time automatically set.

Settings

Options that affect the bandwidth graph display and the order of packages in the Package Manager page may be selected using the Settings page.

1. Select **MediaWrite** > **Settings**.

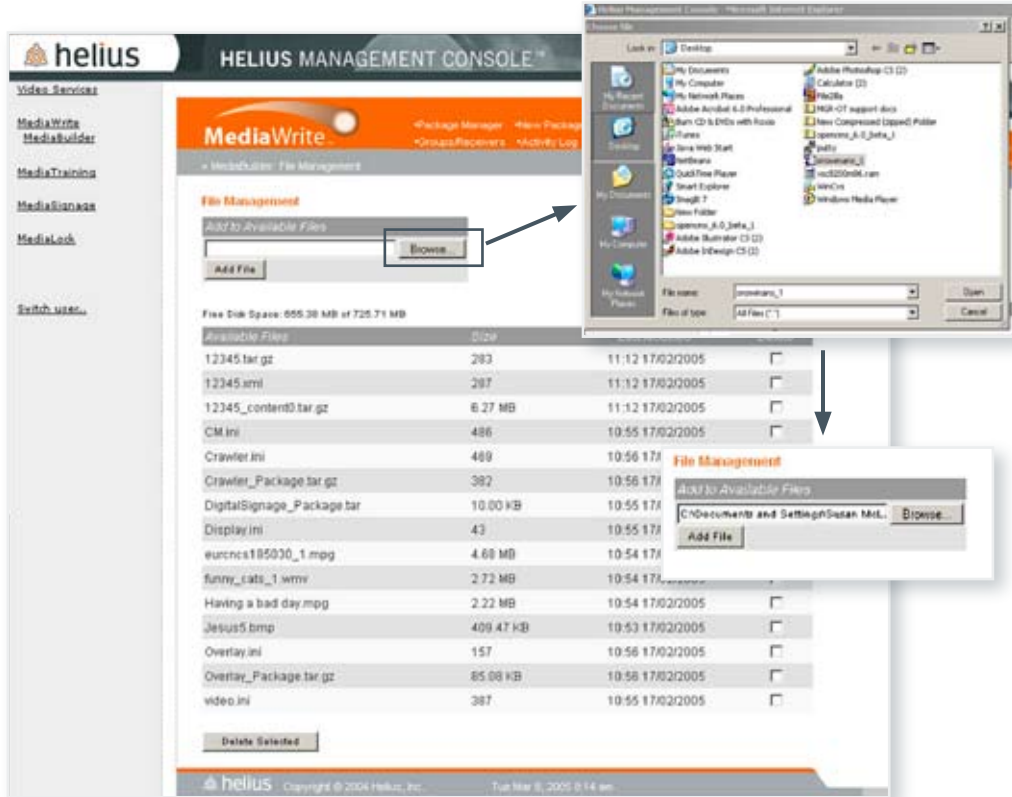


2. Select the settings for the bandwidth graph.
3. Select SAVE SETTINGS.


Transfer Files to Server

Media files must first be transferred to the MediaGate Server before being packaged and sent to Routers on the network. No matter which method is used for the transfer (FTP, Samba share, or File Management as shown here) media file names should contain no spaces. For example: SalesTraining.mpg or Sales_Training.mpg are acceptable, but Sales Training.mpg is not.

1. Select **MediaWrite** > **File Management**.



2. Select BROWSE.
3. Select file.
4. Select OPEN.
5. Select ADD FILE.

 MediaClassroom OnDemand files that are uploaded will be .tar.gz files. The .tar.gz files need to be transferred from the OnDemand server to the MediaGate Server. Please see the OneTouch OnDemand server documentation for more information on publishing OnDemand courses.

Create and Send a Package

If multiple files are to be included in a package, they must be combined into one file before the package is created. Combine the file prior to transferring the file to MediaWrite. MediaClassroom OnDemand files will be published as a .tar.gz on the OnDemand Server first and then uploaded to the MediaGate Server for packaging and disbursement to Routers.

1. Select **MediaWrite** > **New Package**.

MediaWrite - Package Manager - **New Package** - Archive - Settings - Group Manager
- Groups/Receivers - Activity Log - File Management

New Package

Package Information

* = Required Field

File Name*

Package Name*

Package Type*

Command

Notes and Comments


Recipients Information

Search in Search

Candidates

Recipients*

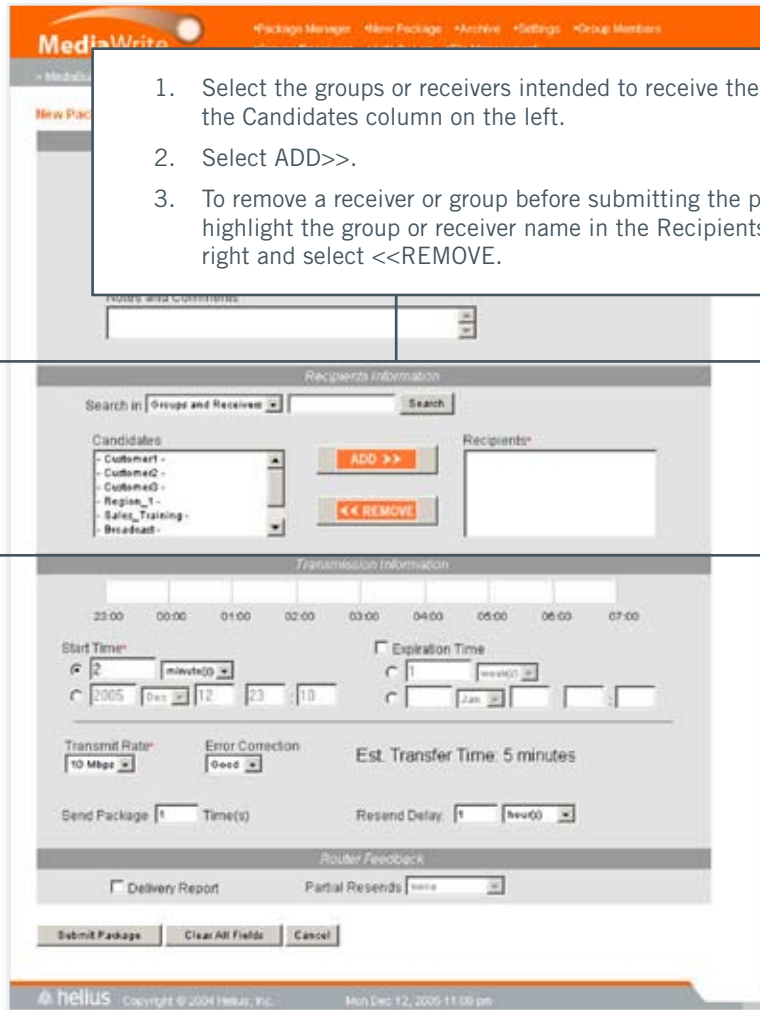
* = required field

1. Select the File Name*. Select the  button to display a directory of available files on the server. Select a file.
2. Provide a descriptive Package Name*.
3. Select Package Type*. If sending a MediaClassroom OnDemand file, select the OTS-ODCR package type.
4. If using a preset command, select command from the drop down menu. OnDemand packages do not need a separate command. The package type contains the command information.
5. Add notes and comments, if desired.

Delivery Report Partial Resends

helius Copyright © 2004 Helius, Inc. Mon Dec 12, 2005 11:09 pm

2. Provide Package Information.
3. Provide Recipient Information (See next page for details).



1. Select the groups or receivers intended to receive the package from the Candidates column on the left.
2. Select ADD>>.
3. To remove a receiver or group before submitting the package, highlight the group or receiver name in the Recipients column on the right and select <<REMOVE.

You may reduce the number of items displayed by using the Search feature. Select Groups, Receivers or Groups and Receivers, enter the name or part of the name if desired, then select SEARCH to initiate the change.

Select the groups and receivers to receive this package from the Candidates column and select ADD >> to move them to the Recipients column. Multiple Candidates may be selected by pressing and holding the CNTRL key while selecting.

4. Select Transmission Information.

* = required field

1. Select Start Time*. Start time can be selected by providing the number of minutes, hours or days in the future to begin transmission or identifying an exact time. Activate the radio button next to the option to be used and identify the criteria.
2. Select Package Expiration by activating (✓) the checkbox. Enter the date by providing the number of hours, days or weeks in the future to expire the transmission file, or by assigning the date and time. Activate the radio button next to the option to be used and identify the criteria.
3. Select Transmission Rate*.
4. Select Error Correction (Good, Better, Best).
5. Identify the number of times to send the package. A higher number of iterations of the package being sent increases delivery success.
6. Select number of times to send the package. Set the delay time between package delivery attempts.

The screenshot shows the MediaWrite software interface. The 'Transmission Information' section includes a time selection bar from 23:00 to 07:00. Below it, the 'Start Time*' field is set to 2 minutes, with a radio button selected for 'minutes(s)'. The 'Expiration Time' section has a radio button selected for 'hours(s)'. The 'Transmit Rate*' is set to 10 Mbps, and 'Error Correction' is set to Good. The 'Est. Transfer Time' is 5 minutes. The 'Send Package' field is set to 1 Time(s), and 'Resend Delay' is set to 1 hour(s). The 'Router Feedback' section has a radio button selected for 'Delivery Report' and 'Partial Resends' set to none. At the bottom, there are buttons for 'Submit Package', 'Clear All Fields', and 'Cancel'. The footer shows the helius logo, copyright information, and the date/time: Mon Dec 12, 2005 11:09 pm.

5. Complete Router Feedback settings. This feature is not mandatory and requires a return line (back channel) such as a modem phone line to send an email back to the intended recipient. Selecting Partial Resends enables the ability to have only the parts of the package file that are missing be sent on the subsequent attempts for delivery. If the package was completely delivered the first transmission, no resend is necessary.
6. Select SUBMIT PACKAGE.

Edit a Package

1. Select **MediaWrite** > **Package Manager**.

The screenshot shows the Helius Management Console interface. On the left is a navigation menu with options like Video Services, MediaWrite, MediaBuilder, MediaTraining, MediaSignage, MediaLock, and Subscribers. The main content area is titled 'MediaWrite' and 'Package Manager'. It features a bandwidth usage graph for Dec 12, 2005, and a table of packages. One package, 'Philadelphia.schedul er tar', is highlighted with a red circle and an arrow pointing to it. The table has columns for Package Name, Size, Start Time/ETA, Transfers, Info, and Status.

Package Name	Size	Start Time/ETA	Transfers	Info	Status
Philadelphia.schedul er tar	2.26 MB	2005-12-12 18:52	1 of 1	?	SENT
Philadelphia.schedul er tar	20.09 KB	2005-12-12 20:32	1 of 1	?	SENT

2. Select the highlighted file name.
3. Make changes. For a detailed explanation of the sections of the Edit Package page, please refer to Create and Send a Package.
4. Select SUBMIT PACKAGE.

The screenshot shows the 'Edit Package' page in the Helius Management Console. It is divided into several sections: Package Information, Recipients Information, Transmission Information, and Router Feedback. The Package Information section includes fields for File Name (Philadelphia.schedul er tar), Package Name (Philadelphia.schedul er tar), Package Type (Compressed), and Command (MediaSignage Publish). The Recipients Information section has a search box and a list of candidates (Customer, CustomerID, Sales Training, Broadcast, Receiver) with 'ADD' and 'REMOVE' buttons. The Transmission Information section includes Start Time (2005 Dec 12 20:32), Expiration Time, Transmit Rate (1 Mbps), Error Correction (Good), and Est. Transfer Time (5 minutes). The Router Feedback section has a checkbox for Delivery Report and a Partial Resends field.

Delete a Package

Packages may be deleted while in the Pending state. Deleting a pending package will stop progress and the package will not be delivered.

When a package is deleted from Package Manager, the package information moves to Package Archive. The actual media files are not included with the archived package information.

1. Select **MediaWrite > Package Manager**.



2. Activate (✓) the checkbox to the left of the files to be deleted. Multiple files may be selected.
3. Select DELETE SELECTED ENTRIES.

 Files deleted here are only deleted off the MediaGate Server. To delete files off the Router, select an expiration date in the Create a Package/Edit a Package page.

Package Archive

When a package is deleted from Package Manager, the package information is moved and stored in Package Archive until deleted from Package Archive.

The screenshot displays the Helius Management Console interface, specifically the Package Archive section. The interface includes a navigation menu on the left with options like Video Services, MediaWrite, MediaBuilder, MediaTraining, MediaStorage, MediaLock, and Switch user. The main content area shows a table of deleted packages. The table has the following columns: Package Name, Type, Size, Date, Info, and Status. The Info column contains question mark icons, which are highlighted by a red box in the image. Below the table are buttons for 'Delete Checked Entries' and 'Remove From Disk'.

Package Name	Type	Size	Date	Info	Status
Crawler_Package1... Crawler_Package.tar.gz	gz	1.76 KB	15-Nov-2004 23:48:07	?	DELETED
Crawler_Package1... Crawler_Package.tar.gz	gz	1.76 KB	16-Nov-2004 00:03:06	?	DELETED
Crawler_Package1... Crawler_Package.tar.gz	gz	1.76 KB	16-Nov-2004 00:18:07	?	DELETED
Crawler_Package1... Crawler_Package.tar.gz	gz	1.76 KB	16-Nov-2004 00:33:09	?	DELETED
Overlay_Package-1... Overlay_Package-1.tar.gz	gz	129.00 KB	16-Nov-2004 00:45:01	?	DELETED
Crawler_Package1... Crawler_Package.tar.gz	gz	1.76 KB	16-Nov-2004 00:48:10	?	DELETED
PL-1.tar.gz PL-1.tar.gz	gz	14.40 MB	16-Nov-2004 00:52:01	?	DELETED
Overlay_Package-2... Overlay_Package-2.tar.gz	gz	4.61 KB	16-Nov-2004 00:55:01	?	DELETED
Overlay_Package-1... Overlay_Package-109.tar.gz	gz	3.23 KB	13-Dec-2004 16:15:01	?	DELETED
Overlay_Package-1... Overlay_Package-107.tar.gz	gz	134.47 KB	13-Dec-2004 16:25:01	?	DELETED
Overlay_Package-1... Overlay_Package-103.tar.gz	gz	9.79 KB	13-Dec-2004 16:35:01	?	DELETED
Overlay_Package-1... Overlay_Package-109.tar.gz	gz	145.10 KB	13-Dec-2004 16:45:01	?	DELETED
PL-1.ini PL-1.ini	ini	526	23-Nov-2009 16:13:00	?	DELETED

Selecting the Info (?) button will display the same detailed package information as is available in Package Manager.

Delete Information

1. Select **MediaWrite** > **Package Archive**.
2. Activate (✓) the checkbox to the left of the file(s) to be deleted.
3. Select **DELETE CHECKED ENTRIES**.

View MediaWrite Activity

The MediaWrite Activity Log provides information on all MediaWrite activity for the Server.

Select **MediaWrite** > **Activity Log**.

The screenshot displays the Helius Management Console interface. The top navigation bar includes the Helius logo and the title 'HELIUS MANAGEMENT CONSOLE'. Below this, there are several menu items: 'Package Manager', 'New Package', 'Archive', 'Settings', 'Group Members', 'Groups/Receivers', 'Activity Log', and 'File Management'. The 'Activity Log' menu item is selected, and the page title is 'MediaBuilder - Activity Log'. The main content area shows the 'susan Activity Log' with a list of activity entries. The entries are timestamped and describe various actions such as adding provider accounts, creating receiver records, uploading files, and managing packages. The log entries are as follows:

- Feb 17 10:15:32 helius MediaBuilderAdmin/index.cgi[27765]: Added ACTIVE Provider account for "susan/susan"
- Feb 17 10:28:19 helius MediaBuilder/group.cgi[21063]: Receiver record created: "susan/receiver1"
- Feb 17 10:28:18 helius MediaBuilder/group.cgi[21063]: Contact info created: "susan00.D0:5C:23:8D:6C"
- Feb 17 10:53:37 helius MediaBuilder/webupload.cgi[32327]: "jesus5.bmp" was uploaded successfully: "susan/jesus5.bmp"
- Feb 17 10:54:02 helius MediaBuilder/webupload.cgi[32365]: "funny_cat_1.xwm" was uploaded successfully: "susan/funny_cat_1.xwm"
- Feb 17 10:54:18 helius MediaBuilder/webupload.cgi[32414]: "Having a bad day.mpg" was uploaded successfully: "susan/having a bad day.mpg"
- Feb 17 10:54:26 helius MediaBuilder/webupload.cgi[32426]: "euroncs185030_1.mpg" was uploaded successfully: "susan/euroncs185030_1.mpg"
- Feb 17 10:58:51 helius MediaBuilder/entry.cgi[4959]: File funny_cat_1.xwm; Stream_ID 1 added to the database: "susan/funny_cat_1.xwm"
- Feb 17 11:14:48 helius MediaBuilder/entry.cgi[2100]: File 12345.tar.gz; Stream_ID 2 added to the database: "susan/12345.tar.gz"
- Feb 17 11:14:55 helius MediaBuilder/index.cgi[21116]: Entry deleted from catalog: "susan/funny_cat_1.xwm"
- Feb 17 11:30:00 helius MediaWrite Sender[29857]: "susan/12345.tar.gz": changed status to SENDING
- Feb 17 11:30:00 helius MediaWrite Sender[3402]: "susan/12345.tar.gz": mode = Best Effort
- Feb 17 11:33:00 helius MediaWrite Sender[3402]: "susan/12345.tar.gz": Connected to MediaCentral at 127.0.0.1:5000
- Feb 17 11:33:00 helius MediaWrite Sender[3402]: "susan/12345.tar.gz": MCast=224.100.100.100:40030 Stream ID=2
- Feb 17 11:33:00 helius MediaWrite Sender[3402]: "susan/12345.tar.gz": Starting transfer...
- Feb 17 11:33:01 helius MediaWrite Sender[3402]: "susan/12345.tar.gz": Transfer complete. 283 bytes sent. FEC=10:5 Rate=10000000 bps
- Feb 17 11:33:01 helius MediaWrite Sender[3402]: "susan/12345.tar.gz": 3105 bytes sent including overhead
- Feb 17 11:33:10 helius MediaWrite Sender[29857]: "susan/12345.tar.gz": Changed status to SENT
- Feb 17 13:42:30 helius IPadlock/group.cgi[15433]: Receiver deleted: "susan/receiver1-SST"
- Feb 17 13:42:30 helius IPadlock/group.cgi[15433]: Group deleted: "susan/receiver1 and SST"
- Feb 17 14:39:26 helius IPadlock/group.cgi[2102]: Changed Hardware Address from 00:00:5C:23:8D:6C to 00:40:83:CC:1B:E7 for Receiver: "susan/receiver1"
- Feb 17 14:39:26 helius IPadlock/group.cgi[2102]: Receiver deleted: "susan/receiver1-SST"
- Feb 17 14:39:26 helius IPadlock/group.cgi[2102]: Group deleted: "susan/receiver1 and SST"
- Feb 17 15:12:46 helius MediaBuilder/entry.cgi[4856]: 12345.tar.gz entry updated in the database: "susan/12345.tar.gz"
- Feb 17 18:30:06 helius MediaWrite Sender[1354]: "susan/12345.tar.gz": changed status to SENDING
- Feb 17 18:30:06 helius MediaWrite Sender[19885]: "susan/12345.tar.gz": mode = Best Effort
- Feb 17 18:33:06 helius MediaWrite Sender[19885]: "susan/12345.tar.gz": Connected to MediaCentral at 127.0.0.1:5000
- Feb 17 18:33:06 helius MediaWrite Sender[19885]: "susan/12345.tar.gz": MCast=224.100.100.100:40030 Stream ID=2
- Feb 17 18:33:06 helius MediaWrite Sender[19885]: "susan/12345.tar.gz": Starting transfer...
- Feb 17 18:33:07 helius MediaWrite Sender[19885]: "susan/12345.tar.gz": Transfer complete. 283 bytes sent. FEC=10:5 Rate=10000000 bps
- Feb 17 18:33:07 helius MediaWrite Sender[19885]: "susan/12345.tar.gz": 3106 bytes sent including overhead
- Feb 17 18:33:16 helius MediaWrite Sender[1354]: "susan/12345.tar.gz": Changed status to SENT
- Feb 17 19:30:00 helius MediaWrite Sender[1354]: "susan/12345.tar.gz": changed status to SENDING
- Feb 17 19:30:00 helius MediaWrite Sender[24340]: "susan/12345.tar.gz": mode = Best Effort
- Feb 17 19:33:00 helius MediaWrite Sender[24340]: "susan/12345.tar.gz": Connected to MediaCentral at 127.0.0.1:5000
- Feb 17 19:33:00 helius MediaWrite Sender[24340]: "susan/12345.tar.gz": MCast=224.100.100.100:40030 Stream ID=2
- Feb 17 19:33:00 helius MediaWrite Sender[24340]: "susan/12345.tar.gz": Starting transfer...
- Feb 17 19:33:01 helius MediaWrite Sender[24340]: "susan/12345.tar.gz": Transfer complete. 283 bytes sent. FEC=10:5 Rate=10000000 bps
- Feb 17 19:33:01 helius MediaWrite Sender[24340]: "susan/12345.tar.gz": 2741 bytes sent including overhead
- Feb 17 19:33:10 helius MediaWrite Sender[1354]: "susan/12345.tar.gz": Changed status to SENT
- Feb 17 20:16:03 helius MediaWrite Sender[1354]: "susan/12345.tar.gz": changed status to SENDING

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SECTION 6

ENCRYPTED NETWORKS

Overview

If MediaLock was purchased and is licensed for the MediaGate Server and Routers on the network, networks can be defined for encryption services.

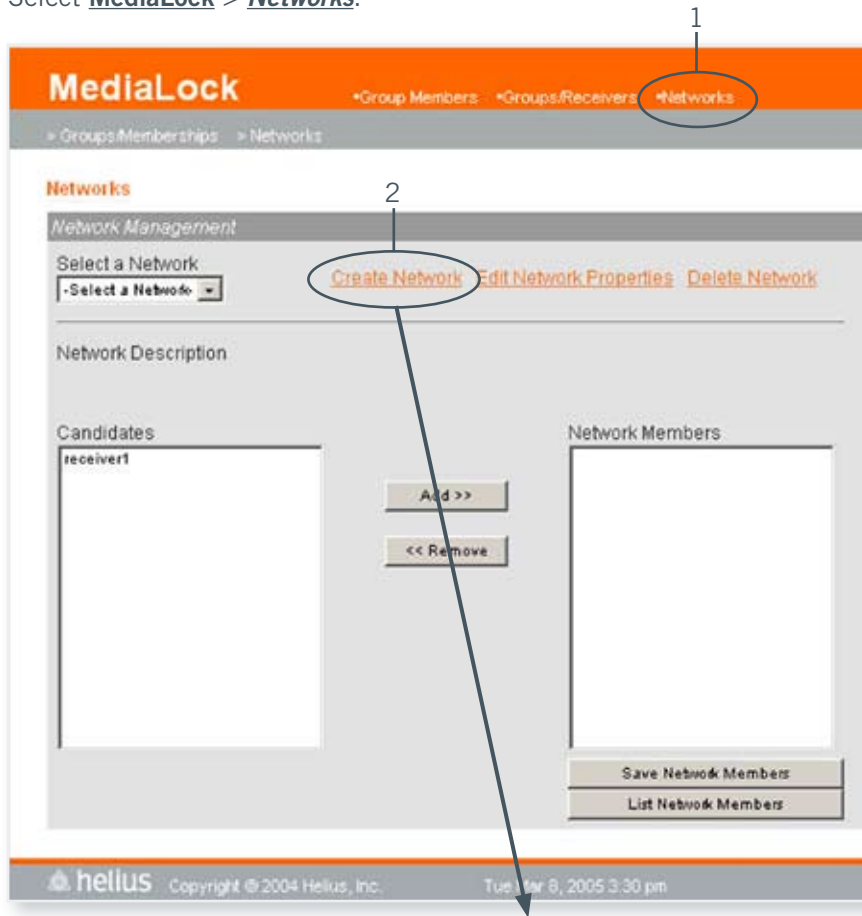
Within MediaLock, group members may be added, deleted and properties edited for the encrypted network. Encryption can be enabled and disabled for each network or channel.

The Group Members and Groups/Receivers interfaces in MediaLock are the same Group Members and Groups/Receivers interfaces for MediaWrite. Groups and receivers already created in Video Services and MediaWrite will be available to the MediaLock functions. Changes made in MediaLock to Groups/Receivers and Group Members affect the system globally on the Server.

- MediaSignage groups and zones created within the MediaSignage interface are nested groups within that interface and are not available to MediaLock and MediaWrite functions.

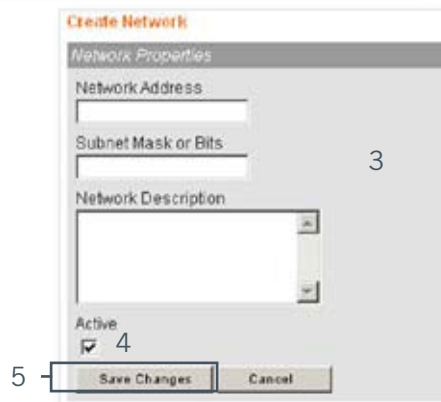
Create or Edit an Encrypted Network

1. Select **MediaLock** > **Networks**.



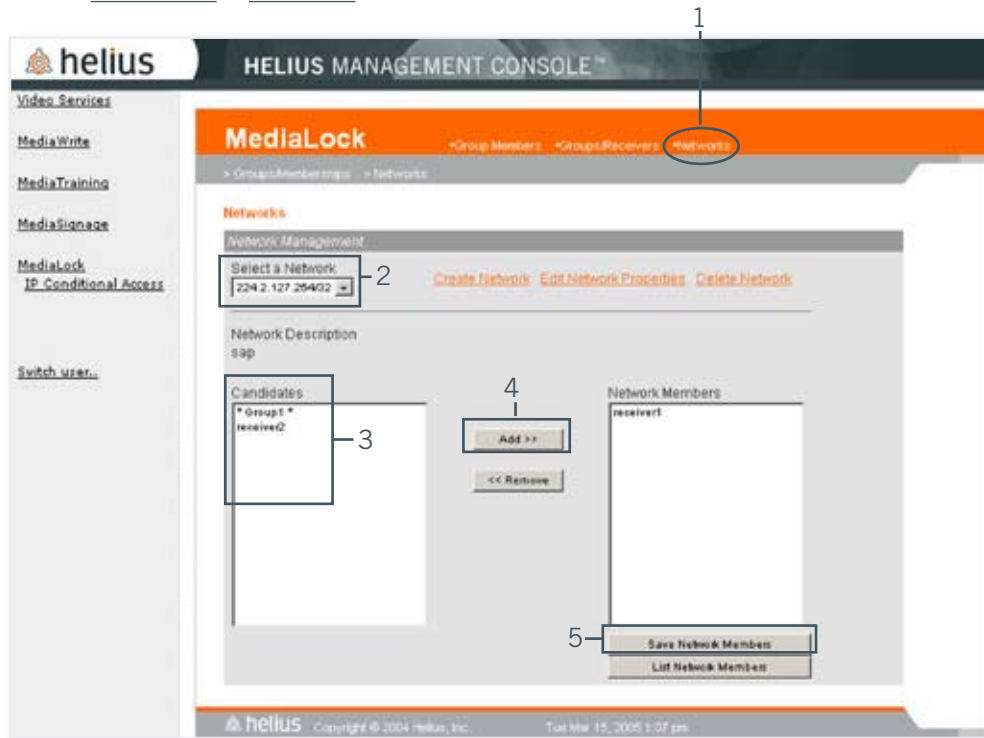
2. Select **Create Network**.
3. Enter Network Address, Subnet and description.
4. Activate (✓) the **Active** checkbox.
5. Select **SAVE CHANGES**.

To edit the network, select **Edit Network Properties**.



Add Groups/Receivers to Encrypted Network

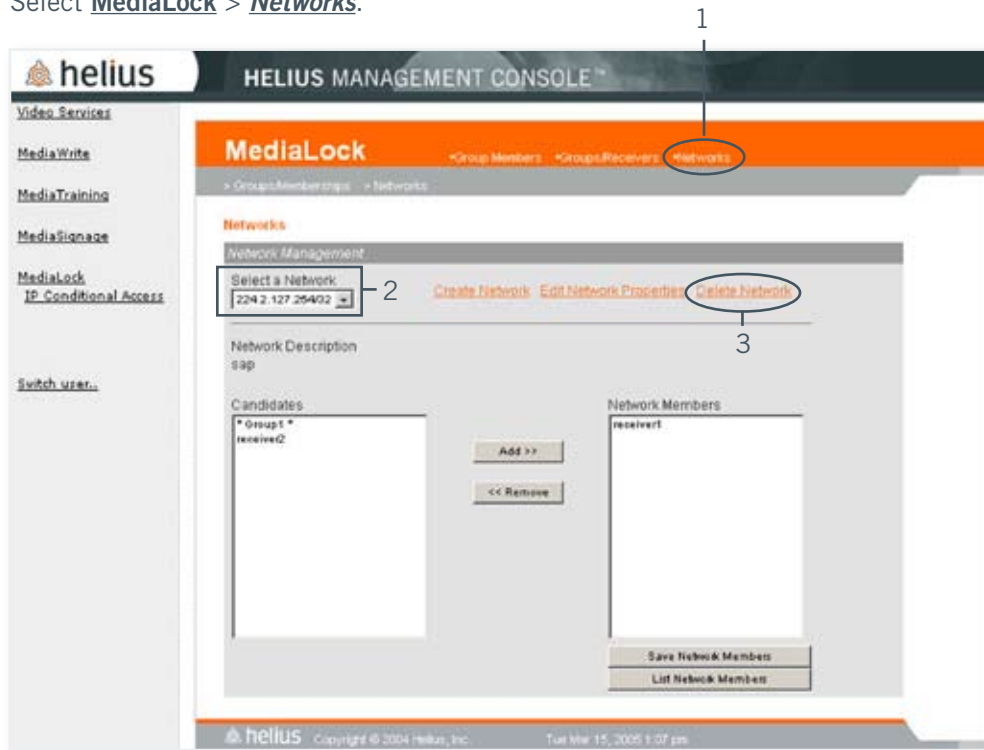
1. Select **MediaLock** > **Networks**.



2. Select a network from the Select a Network drop down menu.
3. Select Candidates from the Candidates column on the left. Press CTRL while selecting in order to select multiple candidates.
4. Select ADD>>.
5. Select SAVE NETWORK MEMBERS.

Delete an Encrypted Network

1. Select **MediaLock** > **Networks**.



2. Select a network from the Select a Network drop down menu.
3. Select **Delete Network**.

Channel Encryption

If MediaLock is enabled, encryption can be set in Channel Editor for a specific channel or event.

1. Select **Video Services** > **Channel Editor**.



The screenshot shows the Helius Management Console interface. The left sidebar contains navigation options: Video Services, Authorizations, Channel Editor (highlighted), MediaWrite, MediaTraining, MediaStorage, MediaLock, and Switch user. The main content area is titled "Video Services" and "Channel Editor". It displays a table with the following columns: ID - Channel Name, Multicast Address, Encrypted, Authorizations, Events, and Enabled. The Encrypted column contains lock icons for all channels. Below the table are buttons for "Create Channel", "Delete Selected", and "Toggle Enabled".

ID - Channel Name	Multicast Address	Encrypted	Authorizations	Events	Enabled
<input type="checkbox"/> 1 Live-1	224.20.20.1	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 2 Live-2	224.20.20.2	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 3 Live-3	224.20.20.3	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 4 Live-4	224.20.20.4	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 5 Live-5	224.20.20.5	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 6 Live-6	224.20.20.6	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 7 Live-7	224.20.20.7	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 8 Live-8	224.20.20.8	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 9 Live-9	224.20.20.9	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 10 Test Channel1	224.20.20.10	🔒	Record Pause IDL	events	✓
<input type="checkbox"/> 11 Test Channel2	224.20.20.11	🔒	Record Pause IDL	events	✓

2. Select the Lock/Unlock icon to enable or disable encryption on a channel. The LOCK icon represents enabled encryption. The UNLOCK icon represents disabled encryption for that channel. If MediaLock is not licensed and setup, "no" will appear in the Encryption column.

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SECTION 7

MEDIATRaining

Overview

MediaTraining is an option that provides user login access to assigned videos. Videos are assigned to users based on job or department.

To set up MediaTraining, at least one MediaWrite group must be created for use with MediaTraining. All router locations that will participate in the MediaTraining program must be assigned to that MediaWrite group. Each participating router needs to have the MediaTraining license enabled by Support.

It is recommended that the MediaWrite group for use in MediaTraining be named so it is easily identifiable from other MediaWrite groups. The MediaTraining group will be further defined in the MediaTraining interface.

The Provider Manual assumes that the server and all routers have been setup and configured properly on the network and licensed for MediaTraining. If a router needs to be created in MediaWrite, obtain MAC and IP address information from Support personnel.

MediaTraining Steps

Upload Videos

MediaTraining videos should be uploaded to the server prior to adding videos to the MediaTraining function. Refer to CHAPTER 5: MEDIAWRITE PACKAGES for information on uploading videos. Video titles should have no spaces in the name. For example: SalesTraining.mpg or Sales_Training.mpg is acceptable, Sales Training.mpg is not.

Setup MediaWrite Groups

Refer to CHAPTER 2: GROUPS AND RECEIVERS for more information.

Open **MediaWrite** > **MediaBuilder** > **Groups/Receivers**.

1. Create a MediaWrite group for MediaTraining.
2. Create all routers that are to receive MediaTraining content.
3. Add all routers to be used in MediaTraining to the MediaWrite group.

Setup MediaTraining

The steps below are detailed in the sections noted in parenthesis.

1. Register the MediaWrite group as an Organization (Organizations).
2. Create jobs and departments within that Organization (Jobs and Departments).
3. Create Users (Users).
4. Add videos to an Organization (Videos).
5. Assign videos to specific jobs or departments (Video Assignments).
6. Publish the Organization (Publish MediaTraining Information to the Network).

Once the MediaTraining Organization and videos have been published to the network, the video files and logins will be available on the individual routers assigned.

Using their individual login ID, participants will be able to login, select an assigned video, watch and then verify completion of the video. For end user information, please refer to the MediaGate Router User Manual.

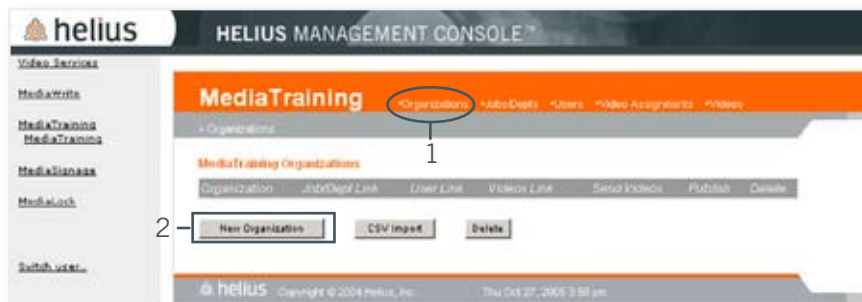
Organizations

An Organization is a MediaWrite group created specifically for MediaTraining purposes. Once the MediaWrite group has been created, the group must be registered as an Organization in the MediaTraining interface in order to begin using MediaTraining functions.

A registered Organization contains jobs/departments, users and video assignment information. When all jobs/departments, users and videos are defined and assigned, the Organization information must be published to the network to deliver the information to the routers.

Register a Group

1. Select **MediaTraining** > **Organizations**.



2. Select NEW ORGANIZATION.



All MediaWrite groups will display in the *Groups* column. It is helpful to clearly name the MediaWrite group intended for use with MediaTraining so it is easily identified.

3. Activate (✓) the checkbox in the *Register* column next to the group.
4. Select REGISTER ORGANIZATION.

Jobs and Departments

Each job or department can be assigned specific videos that need to be viewed by employees within that category. Each employee is assigned a job and department.

Create a Job or Department

1. Select **MediaTraining** > **Jobs/Depts**.



2. Select an Organization



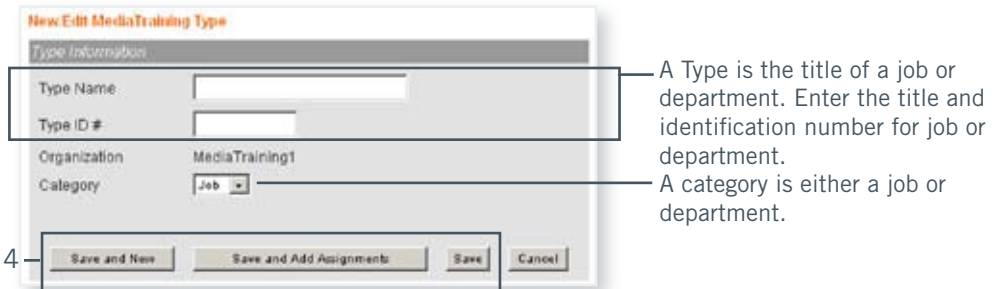
Selecting the *jobs/depts* link in an Organization's row opens the jobs/dept page for that Organization.



3. Select ADD.



4. Fill out required information.



Select SAVE AND NEW to continue to create jobs or departments, SAVE AND ADD ASSIGNMENTS to assign videos to the newly created job or department or SAVE to save and return to the Organization page.

Edit a Job or Department

1. Select **MediaTraining**. The Organizations page will display.



Select the Jobs/Depts link next to the Organization.

2. Select EDIT in the row of the job or department to be modified.



3. Modify the Type Name. Currently, you can only change the name of the job or department.



Select SAVE AND NEW to create a new job or department or SAVE AND ADD ASSIGNMENTS to add new video assignments to the job or department.

Delete a Job or Department

1. Select **MediaTraining** > **Jobs/Depts**.



The screenshot shows the MediaTraining web application interface. At the top, there is a navigation bar with the following links: Organizations, Jobs/Depts, Users, Video Assignments, and Videos. Below the navigation bar, there is a section for 'Types' with a dropdown menu set to 'MediaTraining1' and buttons for 'Add' and 'Delete'. The main content area displays a table titled 'MediaTraining Types' with the following data:

Name	Type ID	Organization	Category	Delete	Edit
OSHA	555	MediaTraining1	Job	<input type="checkbox"/>	Edit
Sales	333	MediaTraining1	Dept	<input type="checkbox"/>	Edit
Night_cleaning	111	MediaTraining1	Job	<input type="checkbox"/>	Edit

Below the table, there are buttons for 'Add' and 'Delete'. At the bottom of the page, there is a footer with the Helius logo, copyright information (Copyright © 2004 Helius, Inc.), and the date/time (Thu Oct 27, 2005 4:32 pm).

2. Activate (✓) the checkbox in the *Delete* column next to the job or department.
3. Select DELETE.

Users

Each employee must be given a login ID. the following information is necessary to create a user account:

- Job
- Department
- Site ID. The Site ID is the name of the router at the user's location. This is the router that will receive the Organization information and videos for playback. If the router does not display in the drop down menu, it needs to be added to the group in Media-Write.

Create Users

1. Select **MediaTraining** > **Users**.



2. Select an Organization from the drop down list.

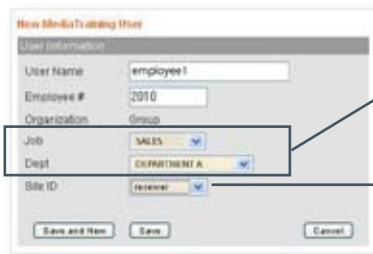


Selecting the *Users* link in an Organization's row opens the Users page for that Organization.

A single organization must be selected in order to define a user.



3. Select ADD. Enter required information.

A screenshot of the 'New Media Training User' form. The form has a title 'New Media Training User' and a subtitle 'User Information'. It contains several input fields: 'User Name' with the value 'employee1', 'Employee #' with the value '2070', 'Organization' with the value 'Group', 'Job' with a dropdown menu showing 'SALES', 'Dept' with a dropdown menu showing 'DEPARTMENT A', and 'Site ID' with a dropdown menu showing 'rechner'. There are 'Save and New', 'Save', and 'Cancel' buttons at the bottom.

Select job and department. If a job or department is not available, create the job or department. See Create Jobs/Depts.

Identify the Router at the user's location. This Router is the one that will be used by the employee for training.

4. Select SAVE AND NEW to continue creating users or SAVE to return the main page.

Edit Users

1. Select **MediaTraining** > **Users**.

The screenshot shows the Helius Management Console interface. The top navigation bar includes links for Organizations, Jobs/Depts, Users, Video Assignments, and Videos. The main content area is titled 'MediaTraining' and shows a table of 'MediaTraining Organizations'. The 'Users' link in the navigation bar and the 'Users' link in the 'MediaTraining Organizations' table are highlighted with callout boxes. The 'Users' link in the table is also highlighted with a red circle.

Selecting Users in the navigation bar opens the User Page, but requires you to select the Organization from the drop down menu.

Selecting the Users link in the Organization row displays the user list for that Organization.

2. Select EDIT to edit that user's information.

The screenshot shows the 'New MediaTraining User' form. The form contains the following fields and values:

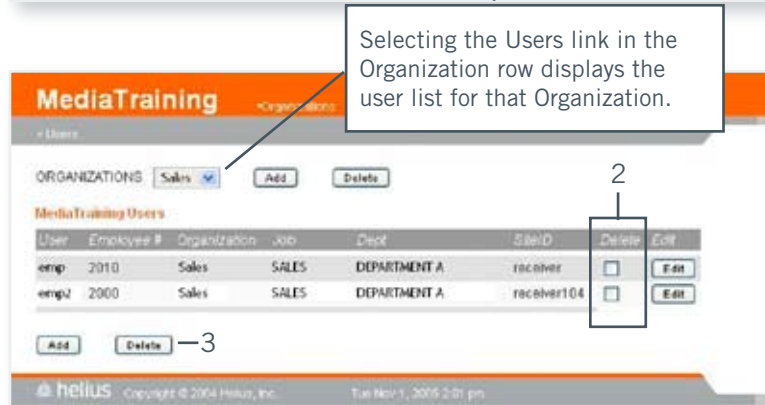
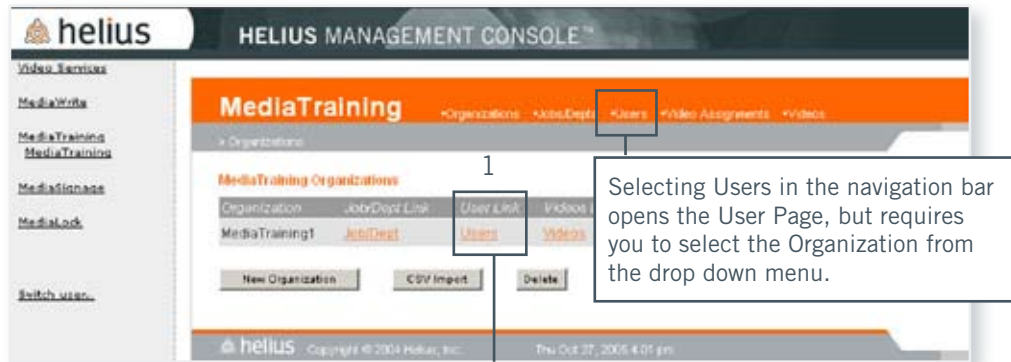
Field	Value
User Name	Employee1
Employee #	505
Organization	MediaTraining1
Job	Job1
Dept	Dept1
Site ID	test1

Buttons: Save and New, Save, Cancel

3. Make changes to available fields.
4. Select SAVE AND NEW to add a new user or SAVE.

Delete Users

1. Select **MediaTraining** > **Users**.



2. Activate (✓) the checkbox in the *Delete* column for that user.
3. Select DELETE.

Delete Videos

1. Select **MediaTraining** > **Videos**.



2. Activate (✓) the checkbox in the *Delete* column.
3. Select DELETE.

Video Assignments

Create or Edit Video Assignments

1. Select **MediaTraining** > **Video Assignments**.

MediaTraining > Organization 1 > Video Assignments > Videos

> Video Assignments

ORGANIZATIONS Organization 1 CATEGORIES ALL TYPES ALL Add Delete

MediaTraining Video Assignments:

Video Name	Description	Class	Organization	Category	Type	Delete	Edit
Sales_Training.mpg	Monthly meeting	Required	Organization 1	Job	Salesperson	<input type="checkbox"/>	Edit
Thinking_Positive.mpg	Thinking positively and showing that to customers.	Optional	Organization 1	Dept	Clothing	<input type="checkbox"/>	Edit
Having_a_bad_day.mpg	How to overcome a day when everything seems to go	Optional	Organization 1	Job	Salesperson	<input type="checkbox"/>	Edit

Add Delete

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Select an Organization to view the video assignments for that group.

Select a category and/or type to further define which videos are displayed.

2. Select ADD. An ADD button is positioned to the right of the Organization selection row for convenience when the video assignment page is full. Both the ADD button on the top right of the page and the ADD button on the bottom left of the page perform the same function.

New/Edit MediaTraining Video Assignment

Video Assignment Information

Video Monthly meeting New Video

Class Required

Organization Organization 1

Category Dept

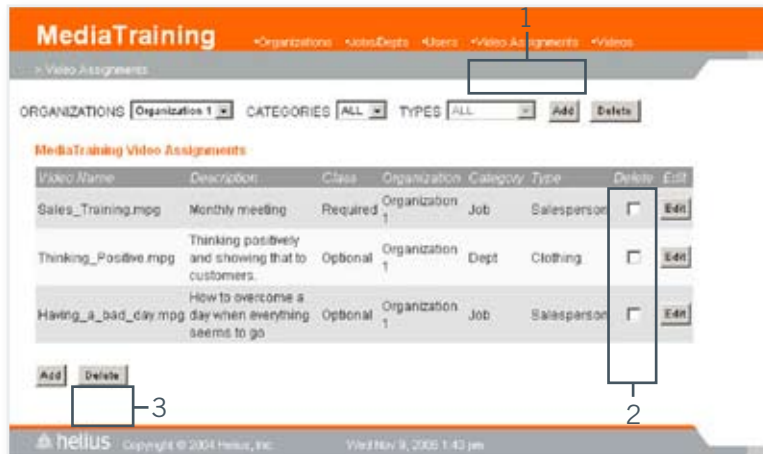
Type Salesperson

Save and New Save Cancel

3. Select a video from the drop down menu. If the video is not displayed, use the NEW VIDEO button to add the video to the Organization's video list.
4. Use the drop down menus to identify Class (Required or Optional), Category (Job or Department) and Type (Job or Department identification provided when the job or department was created).
5. Select SAVE or SAVE AND NEW in order to continue making video assignments.

Delete Video Assignments

1. Select **MediaTraining** > **Video Assignments**.



2. Activate (✓) the checkbox in the delete column for the assignment to be deleted.
3. Select DELETE.

Publish MediaTraining Information to the Network

Once all jobs and departments, users and videos have been created and assigned, the Organization is now ready to be published to the network. If the videos have been previously published to the routers, they do not need to be sent again.

1. Select **MediaTraining** > **Organizations**.



2. Activate (✓) the checkbox in the *Send Video* column to send a copy of the video file when the Organization information is published to the network. This is optional. If the videos were all previously sent and only user, job or department information has been updated, a copy of the video file is not required.
3. Select the PUBLISH button that displays on the same row as the Organization name. The MediaWrite New Package page will display with the package and recipient information already completed.

MediaWrite

Package Manager | New Package | Archive | Settings | Group Members
 Group Receivers | Activity Log | File Management

> MediaWriter: New Package

New Package

Package Information

* = Required Field

File Name*

Package Name*

Package Type*

Command

Notes and Comments

Recipients Information

Search in:

Candidates

Recipients*

Transmission Information

20:00 21:00 22:00 23:00 00:00 01:00 02:00 03:00 04:00

Start Time*

Expiration Time

2005 Jan 16 7:30

Transmit Rate*

Error Correction

Send Package Time(s)

Resend Delay week(s)

Router Feedback

Delivery Report

Partial Resends:

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4

5

4. If desired, add notes and comments and set transmission information. For a detailed description of the New Package page, refer to CHAPTER 5: MEDIWRITE PACKAGES..
5. Select SUBMIT PACKAGE. Once submission has begun, the New Package page will close and display MediaWrite Package Manager.



Glossary of Terms

This Glossary of Terms is separated into Definitions and Acronyms.

Definitions

Catalog

A list of packages to be sent via MediaWrite containing all send details.

Digital Video Broadcast (DVB)

DVB is standard satellite video only. DVB cannot be multicast nor forwarded on to other devices on a network as DVB. To be multicast to other devices on a network, DVB must be converted to IP. For devices on the network to receive DVB to IP broadcasts, they must be configured to the multicast address and port and interface the router is broadcasting on and have software loaded that allows DVB to IP viewing. Helius MediaStream Player provides DVB to IP viewing capability on local PCs.

Dynamic Host Configuration Protocol (DHCP)

A protocol that allows network administrators to centrally manage and automate assignment of IP addresses on a network. Using TCP/IP, each machine that can connect to the Internet requires a unique IP address. When an organization provides computer users with a connection to the Internet, an IP address must be assigned to each machine. Without DHCP, the IP address must be entered manually at each computer, and if computers move to another location in another part of the network, a new IP address must be entered. DHCP allows a network administrator to supervise and distribute IP addresses from a central point by automatically sending a new unique IP address when a computer is connected to the network in any location.

File Transfer Protocol (FTP)

The standard Internet protocol for file transfer. FTP is the simplest way to exchange files between computers on the Internet. FTP is an application protocol that uses TCP/IP.

Internet Protocol (IP)

Specifies the format of packets, also called datagrams, and the addressing scheme. Most networks combine IP with a higher-level protocol called Transport Control Protocol (TCP) which establishes a virtual connection between a destination and a source. IP by itself is similar to a letter: it allows you to address a package and drop it in the system, but there is no direct link between you and the recipient. TCP acts as the postal delivery service by establishing a connection between two hosts so that they can send messages back and forth for a period of time.

IP Address

A 32-bit address assigned to hosts using TCP/IP. Each address contains a network number, a subnetwork number (optional) and a host number. The network number and subnetwork number are used for routing. The host number is used to address an individual host within a network or subnetwork.

IP addresses can be private or public. Public addresses are sanctioned by the Internet Assigned Number Authority (IANA).

IP datagram

The unit end-to-end transmission in the protocol. An IP datagram consists of an IP header followed by transport layer data such as a message.

IPSec

A developing standard for security at the network or packet-processing layer of network communication. Earlier security approaches have inserted security at the application layer of the communications model. IPSec is useful for implementing virtual private networks and for remote user access through dialup connections to private networks. Security arrangements can be handled without requiring changes to individual user computers.

Local Area Network

A network of interconnected workstations sharing the resources of a single processor or server within a relatively small geographic area. Using Fiber Distributed Digital Interface (FDDI) extends a LAN over a much wider area and now a LAN may serve as few as four or five computers in a single location or several thousand.

Low Noise Block (LNB)

Converts satellite dish signals to an intermediate frequency.

Multicasting

Allows one host computer on the Internet to send content to other computers that have identified themselves as interested in receiving the originating computer's content. Multicasting can be used for such applications as updating the address books of mobile computer users in the field, sending out company newsletters to a distribution list, and broadcasting high bandwidth programs of streaming media to an audience that has set up a multicast group membership.

Point-to-Point Protocol

A protocol for communication between two computers using a serial interface such as a personal computer connected by phone line to a server. For example: An Internet Service Provider (ISP) may provide a PPP connection so the provider's server can respond to user requests, pass them on to the Internet and forward requested Internet responses back to the user. PPP uses IP and is designed to handle other protocols as well. PPP is sometimes considered a member of the TCP/IP suite of protocols. Relative to the Open Systems Interconnection (OSI) reference model, PPP provides layer 2 (data-link layer) service: PPP packages TCP/IP packets from a user's computer and forwards them to the server where they can actually be put on the Internet.

Simple Mail Transfer Protocol (SMTP)

A TCP/IP used in sending and receiving email. SMTP has limited ability to queue messages at the receiving end and is generally used for sending messages. POP3 or IMAP allow the user to save messages in a server mailbox and download them periodically from the server so POP3 or IMAP are generally used for receiving messages. Most mail programs allow specification of an SMTP server and a POP server.

Spider

A program that automatically fetches Web pages. Another term for these programs is webcrawler. Most Web pages contain links to other pages, so a spider can start almost anywhere. As soon as it sees a link to another page, it goes off and fetches it. MediaWrite can send spider packages to receivers to speed up browsing when using the MediaGate Router as the Internet access point.

Squid

A full-featured Web proxy cache with the following features:

- proxying and caching of HTTP, FTP, and other URLs
- proxying for SSL
- cache hierarchies
- ICP, HTCP, CARP, Cache Digests
- transparent caching
- WCCP
- extensive access controls
- HTTP server acceleration
- SNMP
- caching of DNS lookups

Status Messages/MediaWrite

PENDING	Package is being prepared for sending.
DOWNLOADING	Package is being sent from the server to the router. This message appears on the router.
SENDING	Package is being sent from the server to the router. This message appears on the server.
DELIVERED	Package was received by the router.
DELETED	Package has been deleted. This message displays in Package Archive.
ERROR	Something occurred to stop transmission of the package. Usually the package needs to be resent. It is suggested that all settings and connections on the router be checked to assure the IP addresses and configuration are correct for receiving packages.
INCOMPLETE	Package transfer initially failed and is waiting for a scheduled re-send to complete.

Subnet Address

The part of an IP address that is specified as the subnetwork by the subnet mask.

Subnet Mask

Address mask used in IP to indicate the bits of an IP address being used for the subnet address.

Subnetwork

In IP networks, a network sharing a particular subnet address. Subnetworks are arbitrarily segmented by administrators to provide a multi-level hierarchical routing structure while shielding the subnetwork from the addressing complexity of any attached networks.

Transmission Control Protocol (TCP)

A method used in conjunction with IP to send data in the form of message units between computers over the Internet. IP takes care of handling the actual delivery of data and TCP takes care of keeping track of the individual units of data (packets) that a message is divided into for efficient routing through the network.

Acronymns

BER	Bit Error Rate
CA	Conditional Access
CAM	Conditional Access Module (Channel Access Method)
CM	Content Manager (former playlist acronym)
CSV	Comma Separated Value
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name System
DVB	Digital Video Broadcast
EIT	Event Information Table
EPG	Electronic Program Guide
FEC	Forward Error Correction
GUI	Graphical User Interface
HMC	Helius Management Console
HSR	Helius Satellite Router
IGMP	Internet Group Management Protocol
IP	Internet Protocol
IP/DVB	Internet Protocol/Digital Video Broadcast
LAN	Local Area Network
LNB	Low Noise Block
MAC	Media Access Control (Hardware address)
MGR	MediaGate Router
MVP	Music-Video-Pictures
NAT	Network Address Translation
NOC	Network Operations Center
NTP	Network Time Protocol
PID	Program Identifier (DVB)/Process ID number (MGR)
PPP	Point-to-Point Protocol
PSTN	Public Switched Telephone Network. Same as PTSN.
PTSM	Public Telephone Switched Network. Same as PSTN.
RF	Radio Frequency
SAP	Session Announcement Protocol (also: Service Advertising Protocol)
SDT	Service Description Table
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol

SQF	Signal Quality Factor
SSP	Satellite Service Provider
SST	Not an acronym. Product Name
TCP	Transmission Control Protocol
TDT	Time and Date Table
TTL	Time To Live
UDP	User Datagram Protocol or Usenet Death Penalty
VA	Video-Audio

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