



User Guide

Version 2.3

Thank You for Choosing Ross

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1. Provide a Superior Customer Experience
 - offer the best product quality and support
2. Make Cool Practical Technology
 - develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at solutions@rossvideo.com.



David Ross
CEO, Ross Video
david.ross@rossvideo.com

Ross Video Code of Ethics

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

1. We will always act in our customers' best interest.
2. We will do our best to understand our customers' requirements.
3. We will not ship crap.
4. We will be great to work with.
5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
6. We will keep our promises.
7. We will treat the competition with respect.
8. We will cooperate with and help other friendly companies.
9. We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis - do what you know in your heart is right. (You may rent helicopters if necessary.)*

Horizon · User Guide

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Ross Video Limited (Ross) warrants its Horizon Server systems to be free from defects under normal use and service a time period of 15 months from the date of shipment:

If an item becomes defective within the warranty period Ross will repair or replace the defective item, as determined solely by Ross.

Warranty repairs will be conducted at Ross, with all shipping FOB Ross dock. If repairs are conducted at the customer site, reasonable out-of-pocket charges will apply. At the discretion of Ross, and on a temporary loan basis, plug in circuit boards or other replacement parts may be supplied free of charge while defective items undergo repair. Return packing, shipping, and special handling costs are the responsibility of the customer.

This warranty is void if products are subjected to misuse, neglect, accident, improper installation or application, or unauthorized modification.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profit). Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

This warranty is TRANSFERABLE to subsequent owners, subject to Ross' notification of change of ownership.

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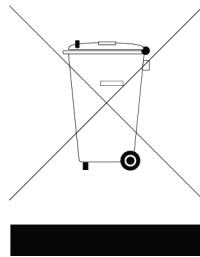
For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your Horizon Server system, contact your regional sales manager.

Environmental Information

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Ross Video for more information on the environmental performances of our products.

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Ross Video Limited has reviewed all components and processes for compliance to:

“Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products” also known as China RoHS.

The “Environmentally Friendly Use Period” (EFUP) and Hazardous Substance Tables have been established for all products. We are currently updating all of our Product Manuals.

The Hazardous substances tables are available on our website at:

<http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html>

电器电子产品中有害物质的使用

Ross Video Limited 按照以下的标准对所有组件和流程进行了审查:

“电器电子产品有害物质限制使用管理办法” 也被称为中国RoHS。

所有产品都具有“环保使用期限”(EFUP)和有害物质表。目前,我们正在更新我们所有的产品手册。

有害物质表在我们的网站:

<http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html>

Company Address

Ross Video Limited

8 John Street
Iroquois, Ontario
Canada, K0E 1K0

Ross Video Incorporated

P.O. Box 880
Ogdensburg, New York
USA 13669-0880

General Business Office: (+1) 613 • 652 • 4886

Fax: (+1) 613 • 652 • 4425

Technical Support: (+1) 613 • 652 • 4886

After Hours Emergency: (+1) 613 • 349 • 0006

E-mail (Technical Support): techsupport@rossvideo.com

E-mail (General Information): solutions@rossvideo.com

Website: <http://www.rossvideo.com>

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Introduction

A Word of Thanks

Thank you for choosing Ross Video Horizon as your meeting control solution.

We are committed to providing you with the highest level of customer satisfaction possible. If, for any reason, you have questions or comments, please call Ross Video at +1-613-652-4886 or send us an e-mail at techsupport@rossvideo.com.

We hope that you visit our website www.rossvideo.com to stay up to date with ongoing software releases, join our customer forum and learn more about the complete range of Ross Video products.

Note that software maintenance and extended warranties are available for your system to protect and extend the life of your investment. Our sales team are more than happy to provide further information on the plans available. Members of our sales team promptly respond to e-mails sent to: solutions@rossvideo.com.

Again, thank you for your purchase of a Horizon meeting control solution from Ross Video. We are confident of your future pleasure with your choice.

Yours Sincerely,



Shawn Snider
Vice President - Production Workflow & Cloud Services
shawn.snider@rossvideo.com

About This Guide

This guide contains the following chapters that cover the installation and configuration of Horizon Server software:

1. “**Introduction**” summarizes the guide and provides important terms, conventions, and features.
2. “**Getting Started**” provides an overview of the Horizon user interface.
3. “**Monitoring the System**” provides instructions on how to monitor the health of a Horizon system.
4. “**User Preferences**” provides instructions on how to override the default language, time zone, and font sizes set by the Horizon administrator.
5. “**Configuring System Properties**” provides instructions on how to configure a Horizon system.
6. “**Managing Inception Nodes**” provides instructions on how to manage the nodes in a Redundant Node.
7. “**Configuring User Permissions**” provides instructions on how to set role-based user permissions for Horizon users.
8. “**Configuring LDAP Authentication**” provides instructions on how to use LDAP to create Horizon user accounts and roles.
9. “**Changing Your Password**” provides instruction on how to change your Horizon account password.
10. “**Connecting Through Horizon**” provides instructions on how to configure and manage endpoints, gateways, and virtual networks.

If you have questions pertaining to the operation of the Ross Video product, please contact us at the numbers listed in the section “**Contacting Technical Support**” on page 1–3. Our technical staff is always available for consultation, training, or service.

Documentation Conventions

This guide uses special text formats to identify parts of the user interface, text that a user must enter, or a sequence of menus and submenus that a user must follow to reach a particular command.

Interface Elements

Bold text identifies a user interface element such as a dialog box, a menu item, or a button. For example:

In the **Media Manager Client**, click **Channel 1** the **Channels** section.

User Entered Text

Courier text identifies text that a user must enter. For example:

In the **File Name** box, enter `Channel01.property`.

Referenced Guides

Italic text identifies the titles of referenced guides, manuals, or documents. For example:

For more information, refer to the section “**Twitter Configuration**” on page 3–6 in the *Horizon User Guide*.

Menu Sequences



Menu arrows identify a sequence of menu items that a user must follow to reach a particular command. For example: if a procedure step contains “**Server > Save As**,” a user should click the **Server** menu and then click **Save As**.

Important Instructions

Star icons identify important instructions or features. For example:

- ★ After installing Horizon Server software, you must obtain Horizon feature licenses from Ross Video Technical Support before users can access Horizon features.

Getting Help

To access the Horizon Server Online Help system, click the  **Help** icon in the main toolbar. For help about the currently open panel, click the  **Help** button in a panel title bar to view a help topic about the panel.

The Online Help system contains the following navigation tabs to locate and access Online Help topics:

- **Contents** — table of contents
- **Search** — full text search
- **Favorites** — preferred information storage and access

Ross Video also supplies print-ready PDF files of the *Horizon Server Installation Guide*, *Horizon Server Configuration Guide*, and the *Horizon User Guides* on the Horizon Server Software Installation DVD.

The Horizon Online Help system contains information about how to configure various aspects of your Horizon application. There are two separate Horizon Online Help systems; one for the Configuration interface, and one for the User interface.

Contacting Technical Support

Technical Support is staffed by a team of experienced specialists ready to assist you with any question or technical issue.

Ross Video has technical support specialists strategically located around the globe to ensure a prompt response to technical inquiries. Our primary technical support center is located in Ottawa, Ontario, Canada. In addition, we have offices in The United Kingdom (London), Australia (Sydney), and Singapore with satellite locations in New York City, The Netherlands, and China. As we expand our presence globally, we are constantly evaluating other key locations to have a local technical support specialist in order to better service our customers.

North America

Our North America center located in Ottawa, Ontario, Canada and is open Monday to Friday 8:30 a.m. to 6:00 p.m. EST, with 24/7/365 on-call service after hours.

Our telephone number is: +1-613-686-1557

Toll free within North America: +1 833-859-0499

EMEA

Our EMEA center is open Monday to Friday 8:30 a.m. to 5:00 p.m. GMT. After hours support is provided by our North America location.

Our telephone number is: +44 (0)1189502446

International toll free: +800 3540 3545

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Australia

Our Sydney, Australia office is located in Alexandria, NSW.

Our local support telephone number is: 1300 007 677

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Online

E-mail: techsupport@rossvideo.com

Website: open a support request using the link <https://support.rossvideo.com/> to open a support request.

Getting Started

Horizon is an interconnection system that allows users to explore, search, and reuse content from other Inception systems throughout their network without ever leaving their home environment. Designed to connect and integrate multiple Inception systems into one comprehensive network, users are no longer constrained to sharing a workload amongst a single newsroom. Instead, multiple Inception systems from anywhere in the world can be linked to share, copy, search, and discover content, a great addition for station groups and other applications.

This chapter discusses the following topics:

- Open Horizon
- Explore the Horizon User Interface
- Using a Desktop Computer with Horizon
- Using a Mobile Device with Horizon
- Entering Text for Right-to-Left Languages

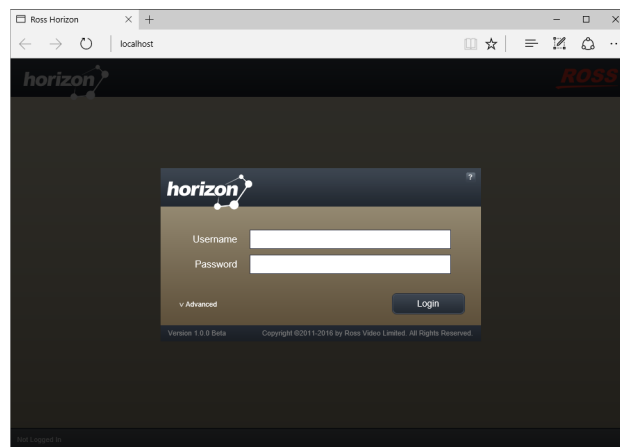
Open Horizon

Horizon is a web based application that you access through a web browser.

To open Horizon

1. Use one of the following supported web browsers to open the Horizon web page provided by your Horizon administrator:
 - Microsoft Internet Explorer® version 9 or greater
 - Mozilla Firefox® version 3.6 or greater
 - Google Chrome™ browser version 17.x or higher
 - Apple Safari® version 5.1.x or greater

The **Login** panel opens.




2. In the **Login** panel, enter your Horizon login credentials in the **Username** and **Password** boxes.
3. Click or tap **Login**.

Horizon opens.

- ★ If a message indicates that the system is in maintenance mode, a system administrator must establish a database connection before you can log in as a Horizon user.

To close Horizon

- On the main toolbar, click or tap the  **Logout** icon.

Explore the Horizon User Interface

The Horizon user interface consists of a main toolbar and various types of workspace panels that open as required. The appearance of the user interface and the availability of features vary depending on whether you use a mobile device or a desktop computer to access Horizon.

- ★ Horizon is a suite of tools that has many optional features. The Horizon Online Help system describes all Horizon features, but the options available to you depend on which features your organization has purchased and the user permissions that your Horizon administrator has granted to your user account. If you want to use a feature that you learned about from the Help system but is not visible, contact your Horizon administrator.

Main Toolbar

The icons in the main toolbar enable you to open workspace panels to access almost all features of Horizon. The icons that you can access from the main toolbar depends on the features your organization purchased and the user permissions that your Horizon administrator assigned to your user account. Horizon tailors the main toolbar to display the features available on the following supported devices:

- **Desktop Computer** — for an overview of the desktop computer main toolbar, refer to the following section “**Main Toolbar**” on page 1–3.
- **Mobile Device** — for an overview of the mobile device main toolbar, refer to the following section “**Main Toolbar**” on page 1–7.

Using a Desktop Computer with Horizon

The Horizon user interface consists of a main toolbar and various types of workspace panels that open as required. Each type of panel opens in a pre-designated position in the Horizon layout. You can open, close, resize, or move individual panels.







Main Toolbar

The icons in the main toolbar enable you to open workspace panels to work with Horizon features. The icons available in the main toolbar depend on the features your organization purchased and the user permissions that your Horizon administrator assigned to your user account.

When you want more space on your screen for Horizon panels, press **Ctrl+F11** to hide the main toolbar. Press **Ctrl+F11** once again to show a hidden main toolbar.

The main toolbar may contain the following icons:

Table 1.1 Desktop Computer Main Toolbar Icons

Icon	Name	Description
	Endpoint Manager	Opens the Endpoint Manager panel. For more information, refer to the section “ Define an Endpoint for an Inception Server ” on page 1–2.
	Virtual Network Manager	Opens the Virtual Network Manager panel. For more information, refer to the section “ Define Your Virtual Network ” on page 1–7.
	Configuration	Opens the Configuration interface. For more information, refer to the chapter “ Configuring Inception ” on page 36–1.
	Change Password	Enables you to change your Horizon password. For more information, refer to the section “ Change Your Inception Password ” on page 36–9.
	Help	Opens the Online Help system.
	Logout	End your current session and log out of Horizon.

Panel Positions

When accessed from a desktop computer, the Horizon user interface layout consists of the main toolbar and eight panel positions. Each panel position can contain various types of Horizon panels. When panel positions are unoccupied, Horizon optimizes the layout by expanding open panels to fill all available space.



Figure 1.1 Arrangement of the Eight Panel Positions

Default Panel Positions

When you first use Horizon, it opens certain types of panels in certain panel positions by default. The following illustration describes the default layout.

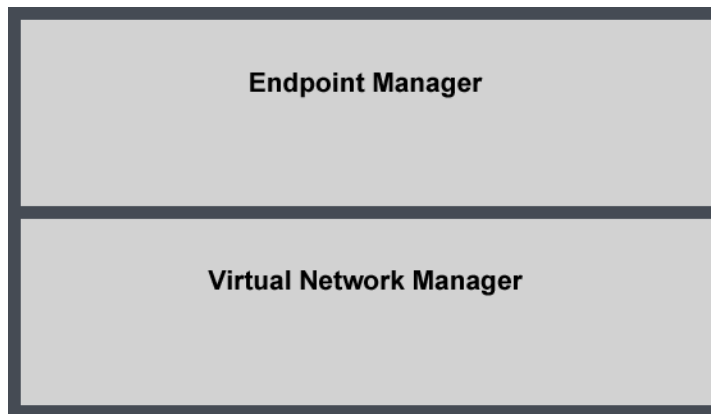


Figure 1.2 Default Panel Layout

By default, Horizon does not occupy all eight panel positions. Horizon optimizes the layout by expanding open panels to fill all available space.

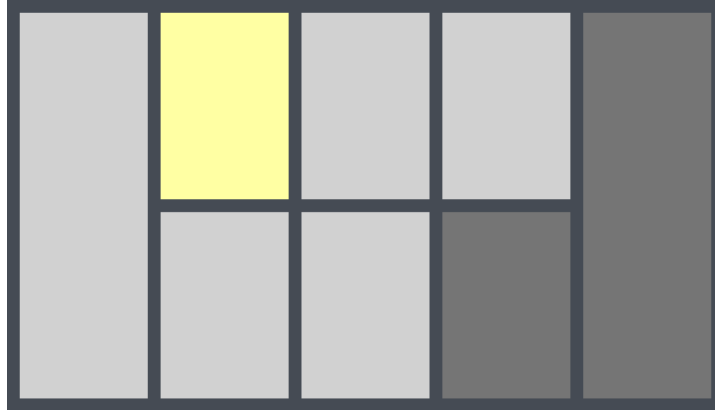
Move a Panel from One Layout Position to Another

You can move a panel to any of the available eight layout positions.

To move a panel from one layout position to another

1. Place the mouse pointer on the title of the panel to move, then click and hold the mouse button.
2. Drag the selected panel.

The layout guide opens.



3. Drag the pointer over the layout guide to select the new position for your panel.

As you drag the pointer over the layout guide, the current drop position for the panel turns yellow. Light gray positions indicate unoccupied positions. Dark gray positions indicate occupied positions that can accept additional panels.

4. Release the mouse button to place the panel at the selected position, highlighted in yellow.

The panel opens at the selected position. When you select an occupied position, the panel opens as a new tab in the panel.

Rearrange Panel Tabs Within a Layout Position

When a panel contains multiple panel tabs, you can rearrange the order of panel tabs within the layout position to customize the layout to suit your typical workflow.

To rearrange the order of panel tabs within a layout position

1. Place the mouse pointer on the title of the panel tab to move, then click and hold the mouse button.
2. Drag the selected panel tab within the tab row at the top of the layout position.

As you drag the pointer over the tab row, a dotted rectangle indicates the current drop position for the selected panel tab. If the rectangle surrounds a tab name, the drop position is to the left of that tab.

3. When the dotted rectangle indicates the desired position, release the mouse button to drop the panel tab.

You can also move a panel to a different layout position by dragging and dropping the panel name tab into the tab row of the destination panel.


Navigating within Panels

This section describes how to resize and close panels and how to navigate within column-based panels.

To resize a panel

1. Hover the mouse pointer over an edge or corner of the panel until the resizing icon displays.
2. Click and drag the edge or corner to resize the panel.

To close a panel

- Click the  Close icon in the top right corner of the panel.

When a layout position contains more than one open panel, only the current panel closes.

Navigating within Column-Based Panels

Column-based panels consist of horizontal rows, each of which represents an endpoint or virtual network. Each vertical column contains one type of information about a row.

The following panel types are column-based:

- Endpoint Manager
- Virtual Network Manager

The following table describes how to navigate within a column-based panel.

Table 1.2 Column-based Panel Navigation

Desired Effect	Action to Perform
To move between cells	Press the Up , Down , Left , or Right arrow keys. Alternatively, to move horizontally, press Tab or Shift+Tab .
To select a row	Click the row, or press the Up and Down arrow keys to navigate to the row. Yellow shading highlights the selected row.
To select a range of rows	Click the first row in the selection range, and then Shift-click the last row in the selection range. The row selection includes the first selected row, the last selected row, and all of the rows between the two selected rows.
To select multiple rows	Click the first row to select, and then Ctrl+Click additional rows to add to the selected row.
To select all rows	Click a row, and then press Ctrl+A . Horizon selects all of the rows in a panel.
To select a cell	Click the cell, or navigate to it by pressing the Up , Down , Left , or Right arrow keys or Tab and Shift+Tab
To replace all of the text in a cell	Select the cell, press the Space Bar , and then enter new contents using the keyboard.
To edit the text in a cell	Select the cell, press the Insert key, press the Left and Right arrow keys to position the cursor, and then insert new content using the keyboard. Press the Delete key to delete individual characters.
To change the status of a check box in the selected cell	Select the cell and then press the Space Bar to reverse the cell status.
To scroll horizontally	Click and drag the horizontal scroll bar at the bottom of the panel.
To scroll vertically	Roll the mouse wheel, or click and drag the vertical scroll bar on the right side of the panel.
To move a column	Click and drag the column header to a new location in the panel.

Using a Mobile Device with Horizon

The Horizon user interface consists of a main toolbar and several types of workspace panels that open as required. Each type of panel opens in a pre-designated position in the Horizon layout. You can open, close, resize, or move individual panels.

- ★ Horizon is a suite of tools that has many optional features. The Horizon Online Help system describes all Horizon features, but the options available to you depend on which features your organization has purchased and the user permissions that your Horizon administrator has granted to your user account. If you want to use a feature that you learned about from the Help system but is not visible, contact your Horizon administrator.

For More Information on...

- workspace panels, refer to the section “**Explore the Horizon User Interface**” on page 1–2.






Main Toolbar

The icons in the main toolbar enable you to open workspace panels to work with Horizon features. The icons available in the main toolbar depend on the features your organization purchased and the user permissions that your Horizon administrator assigned to your user account.

- ★ The Configuration interface is not available when accessing Horizon on a mobile device.

The main toolbar may contain the following icons:

Table 1.3 Mobile Device Main Toolbar Icons

Icon	Name	Description
	Endpoint Manager	Opens the Endpoint Manager panel. For more information, refer to the section “ Define an Endpoint for an Inception Server ” on page 1–2.
	Virtual Network Manager	Opens the Virtual Network Manager panel. For more information, refer to the section “ Define Your Virtual Network ” on page 1–7.
	Change Password	Enables you to change your Horizon password. For more information, refer to the section “ Change Your Inception Password ” on page 36–9.
	Help	Opens the Online Help system.
	Logout	End your current session and log out of Horizon.

Panel Positions

When accessed from a mobile device, the Horizon user interface layout consists of the main toolbar and four panel positions. Each panel position can contain various types of Horizon panels. When panel positions are unoccupied, Horizon optimizes the layout by expanding open panels to fill all available space.

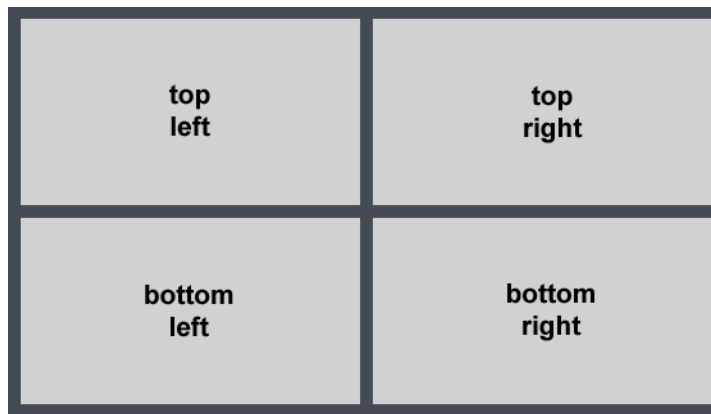


Figure 1.3 Arrangement of the Four Panel Positions

Since Horizon only opens panels in the top right and bottom right positions, the interface looks to have only two panels (top and bottom), unless you move a panel to a position on the left.

Default Panel Positions

When you first use Horizon, it opens certain types of panels in certain panel positions by default. The following illustration describes the default layout.

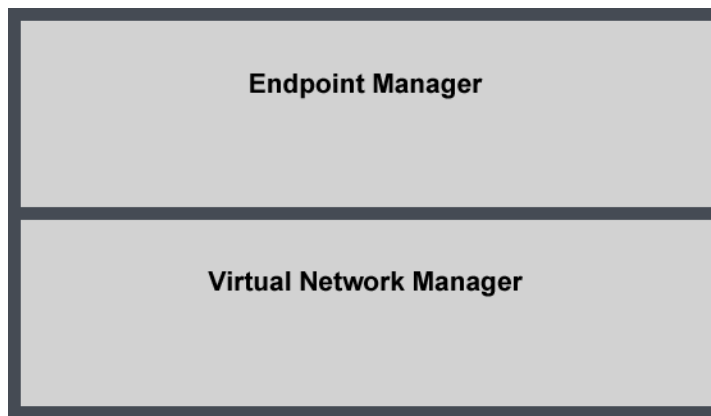


Figure 1.4 Default Panel Layout

By default, Horizon does not occupy all eight panel positions. Horizon optimizes the layout by expanding open panels to fill all available space.

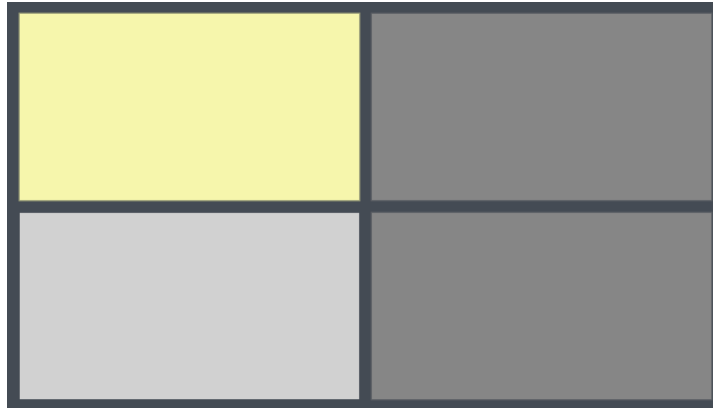
Move a Panel from One Layout Position to Another

You can move a panel to any of the available eight layout positions.

To move a panel from one layout position to another

1. Tap and hold on the title of the panel to move.
2. Drag the selected panel.

The layout guide opens.



3. Drag the pointer over the layout guide to select the new position for your panel.

As you drag the pointer over the layout guide, the current drop position for the panel turns yellow. Light gray positions indicate unoccupied positions. Dark gray positions indicate occupied positions that can accept additional panels.

4. Lift your finger to place the panel at the selected position, highlighted in yellow.

The panel opens at the selected position. When you select an occupied position, the panel opens as a new tab in the panel.

Rearrange Panel Tabs Within a Layout Position

You can rearrange the order of panel tabs within a layout position to customize the layout to suit your typical workflow.

To rearrange the order of panel tabs within a layout position

1. Tap and hold on the title of the panel tab to move.
2. Drag the selected panel tab within the tab row at the top of the layout position.

As you drag the pointer over the tab row, a dotted rectangle indicates the current drop position for the selected panel tab. If the rectangle surrounds a tab name, the drop position is to the left of that tab.

3. When the dotted rectangle indicates the desired position, lift your finger to drop the panel tab.

You can also move a panel to a different layout position by dragging and dropping the panel name tab into the tab row of the destination panel.


Navigating within Panels

This section describes how to resize and close panels and how to navigate within column-based panels.

To resize a panel

1. Tap and hold the brown bar between panels until it turns blue.
2. Drag the bar to resize the two panels that border the selected bar.
3. Lift your finger to place the border between the panels at the selected location.

To close a panel

- Tap the  **Close** icon in the top right corner of the panel.

When a layout position contains more than one open panel, only the current panel closes.

Navigating within Column-Based Panels

Column-based panels consist of horizontal rows, each of which represents an endpoint or virtual network. Each vertical column contains one type of information about a row.

The following panel types are column-based:

- Endpoint Manager
- Virtual Network Manager

The following table describes how to navigate within a column-based panel.

Table 1.4 Column-based Panel Navigation

Desired Effect	Action to Perform
To select a row	Tap a cell in the row. Yellow shading highlights the selected row.
To select a cell	Tap the cell.
To enable or disable the ability to select multiple rows in running orders and playlists	Do one of the following: <ul style="list-style-type: none">• To enable multi-select, tap the Single Select icon in the panel toolbar.• To disable multi-select, tap the Multi Select icon in the panel toolbar. The icons show the current selection mode. For example: when the Multi Select icon is visible, you can select multiple rows.
To select multiple rows in a running order or playlist	Enable multi-select and then tap and hold each row you want to select. When you select a row, it turns yellow.
To deselect a row	Tap and hold it until it changes from yellow to a different color.
To perform an action on one or more rows	Select the rows and then tap an action icon in the panel toolbar. For example: to approve a selected story, click the Approve icon.
To open a story or a playlist item	Double-tap the story or playlist item to open. The selected item opens in an editor panel.

Entering Text for Right-to-Left Languages

When you enter text in Horizon using a right-to-left language, text entry starts from the right of a text box and continues to the left as you enter text. Arabic is one of the most widespread right-to-left languages of modern times.

To enter text in a right-to-left language:

1. In the system settings for your desktop computer or mobile device, select a right-to-left language for the system language or input keyboard.
2. Click in a Horizon text box.
3. Enter your text.

Text starts from the right of the text box and continues to the left as you type. To return to left-to-right text entry, select a left-to-right language for the system language or input keyboard.

Monitoring the System

Horizon system monitors enable you to quickly view the health of your Horizon system. If your Horizon falters, you can use system monitors to help diagnose the cause of the system fault. Along with monitoring the health of your Horizon system, you can also monitor and control the users connected to your Horizon system.

This chapter discusses the following topics:

- Monitor System Health
- User Defined System Monitors
- Monitor and Control Connected Users
- Manage the Horizon SNMP Agent

Monitor System Health

As a Horizon administrator, you can monitor the health of your Horizon system through the Configuration window of Horizon.


★ You cannot monitor Horizon from a mobile device. The Configuration window is only accessible from a desktop computer.

To monitor system health


1. Use your Horizon administrator credentials to log in to the Horizon web page.

The default administrator login credentials are as follows:

- **Username** — root
- **Password** — <your_password>

2. On the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

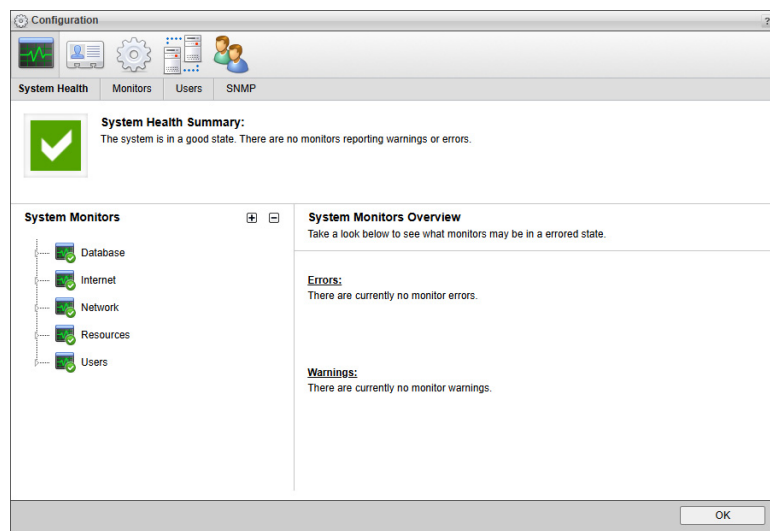
The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **System Monitor** icon.

The **System Monitor** panel opens.

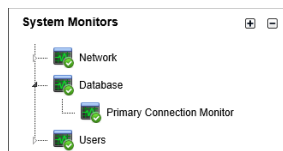
4. Click the **System Health** tab.

The **System Health** tab opens.



The **System Health** Summary field displays a description of the current overall state of the Horizon system. The monitors in the **System Monitors** tree view report details about the state of the Horizon system.

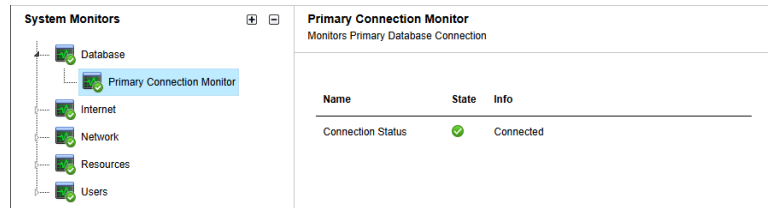
5. Double-click a **folder** in the **System Monitors** tree view to open the folder and display the monitors contained in the folder.



The icon in the lower right corner of System Monitors tree view nodes indicate the following health levels:

-  — **Healthy**
-  — **Warning**
-  — **Error**


6. Click a monitor in the **System Monitors** tree view to view health details reported by the selected monitor.



User Defined System Monitors

Horizon enables to add your own monitors to monitor the remaining storage space on a disk or the connectivity between your Horizon system and a web site. The Monitors tab of the System Monitor panels enables you to add, edit, and delete user defined monitors.

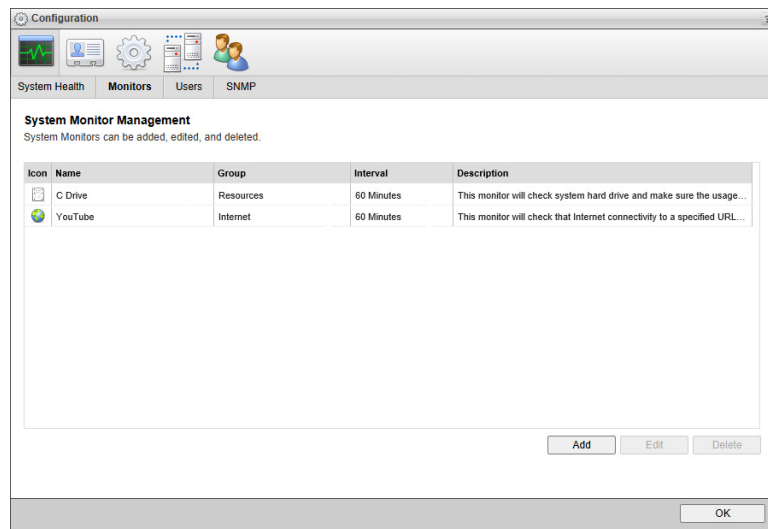
To add a user defined monitor to the System Health tab

1. On the **Configuration** window toolbar, click the  **System Monitor** icon.

The **System Monitor** panel opens.

2. Click the **Monitors** tab.

The **Monitors** tab opens.



3. Click **Add**.

The **Create New System Monitor** page opens.

4. Use the **Monitor** list to select the type of monitor to add. The available monitor types are as follows:
 - **Disk Usage Monitor** — check a selected hard drive to make sure that the available storage does not fall below a set level.
 - **Internet Connectivity Monitor** — check that there is connectivity between the Horizon system and a selected web site.

5. Click **Next**.

Depending on the type of monitor you are adding, the **Add a Disk Usage Monitor** or **Add an Internet Connectivity Monitor** page opens.

6. Define the selected monitor as follows:

Disk Usage Monitor

- a. In the **Name** box, enter a name for the monitor.
- b. In the **Interval** box, enter the amount of time to wait between checks of available hard disk space.
- c. Use the list to the right of the **Interval** box to select **Minute(s)** or **Second(s)** as the time unit for the time entered in the **Interval** box.
- d. Use the **Drive** list to select the Horizon computer hard drive to monitor.
- e. In the **Minimum Free Space** box, enter the minimum amount of disk space that the selected Drive must contain. The monitor reports an **Error** when the available space on a **Drive** drops below the set minimum disk space.
- f. Use the list to the right of the **Minimum Free Space** box to select **Gigabyte(s)** or **Megabyte(s)** as the disk space unit for the amount entered in the **Minimum Free Space After** box.

Internet Connectivity Monitor

- a. In the **Name** box, enter a name for the monitor.
- b. In the **Interval** box, enter the amount of time to wait between connectivity checks for a web site.
- c. Use the list to the right of the **Interval** box to select **Minute(s)** or **Second(s)** as the time unit for the time entered in the **Interval** box.
- d. In the **URL** box, enter the web address (for example: <http://www.rossvideo.com>) of the web site that you want to check connectivity with the Horizon system.

7. Click **Save**.

Horizon adds the new monitor to the **System Monitor Management** list.

To edit a user defined monitor

1. In the **System Monitor Management** list, select the monitor to edit.
2. Click **Edit**.

Depending on the type of monitor you are editing, the **Edit Disk Usage Monitor** or **Edit Internet Connectivity Monitor** page opens.

3. Edit production monitor settings as required.
4. After completing the required monitor setting edits, click **Save**.

To delete a user defined monitor

1. In the **System Monitor Management** list, select the monitor to delete.
2. Click **Edit**.

A confirmation message opens, asking whether you want to delete the selected monitor. To keep the monitor, click **Cancel**.


3. In the confirmation message, click **OK**.

Horizon deletes the selected monitor from the **System Monitor Management** list and the **System Monitors** tree view on the **System Health** tab.

Monitor and Control Connected Users

The Users tab of the System Monitor panel enables you to monitor and control the users connected to your Horizon system.

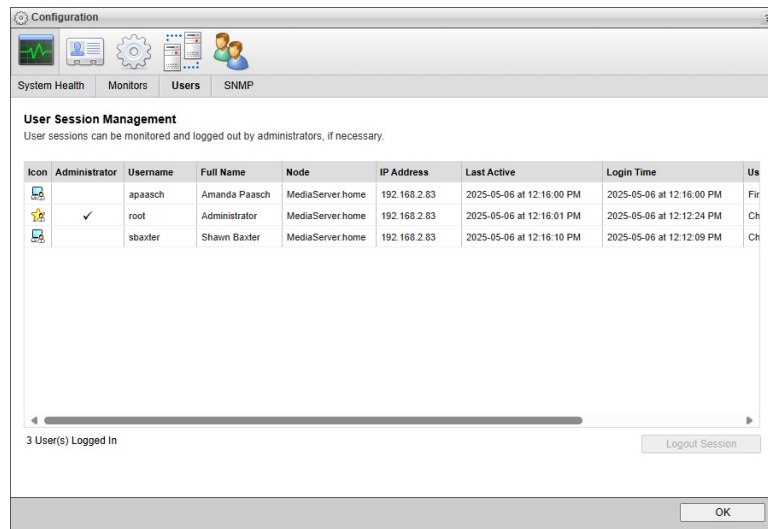
To monitor users connected to a Horizon system

1. On the **Configuration** window toolbar, click the  **System Monitor** icon.

The **System Monitor** panel opens.

2. Click the **Users** tab.

The **Users** tab opens.



The **User Session Management** table displays the following information about the users connected to the Horizon system:

- **Icon** — this column displays an icon that identifies the user logged into the Horizon system.
- **Administrator** — this column displays a check mark for users that are Horizon Administrators.
- **Username** — this column displays the Horizon username of the user logged into the Horizon system.
- **Full Name** — this column displays the first and last name of the user logged into the Horizon system.
- **IP Address / Hostname** — this column displays the IP address and hostname of the computer that the user is using to work on the Horizon system.
- **Last Active** — this column displays the date and time that the user last made a change to Horizon.
- **Login Time** — this column displays the date and time that the user logged into the Horizon system.

Delete User Sessions

When required, you can delete user sessions from your Horizon system. Deleting a user session logs the selected user off of the Horizon system. Horizon saves user changes before logging the user off of the Horizon system.

To delete a user session

1. In the **User Session Management** table, select the user session to delete.
2. Click **Delete User Session**.

A confirmation message opens, asking whether you want to delete the selected user session. To keep the session running, click **Cancel**.

3. In the confirmation message, click **OK**.

Horizon deletes the selected user session and logs the user off of the Horizon system.

Manage the Horizon SNMP Agent

Ross Video uses two Simple Network Management Protocol (SNMP) agents to monitor the software and hardware of your Horizon system. SNMP traps enable an agent to send unsolicited SNMP messages to the Network Management Station (NMS) to notify the station of significant events.

The Horizon SNMP agent monitors the Horizon system and reports significant events to your NMS as SNMP traps. Horizon system hardware changes and errors are monitored by the Windows SNMP agent running on the Horizon computer. The Horizon SNMP agent forwards SNMP traps from the Windows SNMP agent to your NMS (**Figure 1.1**).

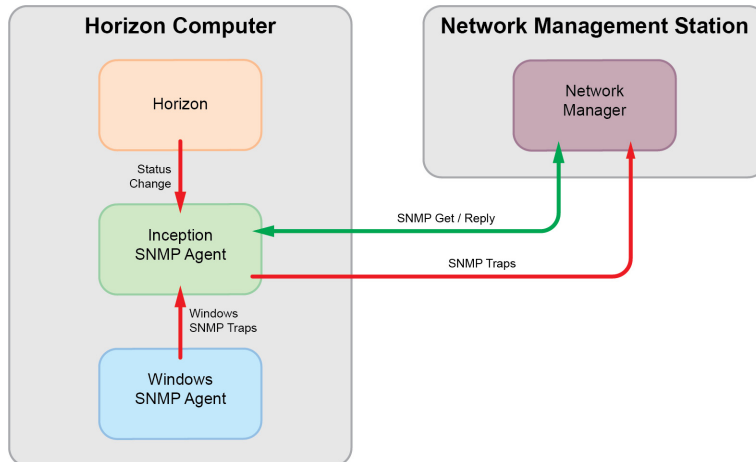



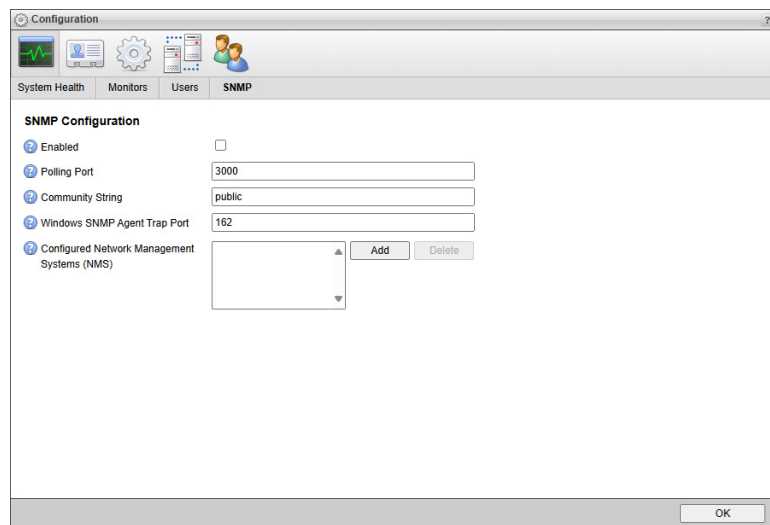
Figure 1.1 SNMP Connections

Configure the Horizon SNMP Agent

The SNMP tab of the System Monitor panel enables you to configure the Horizon SNMP agent to send SNMP trap messages to your NMS.

To configure the Horizon SNMP agent

1. On the **Configuration** window toolbar, click the  **System Monitor** icon.
The **System Monitor** panel opens.
2. Click the **SNMP** tab.
The **SNMP** tab opens.



3. Select the **Enabled** check box to send SNMP trap messages from the Horizon SNMP agent to your NMS.
 4. In the **Polling Port** box, enter the port number through which the Horizon SNMP agent receives commands from and replies to the NMS.
 5. In the **Community String** box, enter the password that allows your NMS to access the Horizon SNMP agent on your Horizon computer.
- ★ When you change the **Community String** from `public` to your own password, you must enter your password on the NMS to allow access to your Horizon computer.
6. In the **Windows SNMP Agent Trap Port** box, enter the port number that the Windows SNMP agent running on the Horizon computer uses to send SNMP trap messages.

The Horizon SNMP agent forwards SNMP trap messages from the Windows SMNP agent to your NMS through the NMS Trap Port.
 7. To send SNMP trap message from the Horizon SNMP agent to one or more NMSs, add NMSs as follows:
 - a. Click **Add** to the right of the **Configured Network Management Systems (NMS)** box.

An **Alert** dialog box opens.
 - b. Enter the IP address and port number (`<IP Address>:<Port Number>`) of an NMS to receive SNMP trap message from the Horizon SNMP agent. For example:

`10.0.2.160:3000`
 - c. To add an additional NMS, repeat step `<UI_Element>a` to step `<UI_Element>b`.

Delete an NMS

When you no longer require an NMS, you can delete the NMS configuration.

To delete an NMS

1. In the **Configured Network Management Systems (NMS)** box, select the NMS to delete.
2. Click **Delete** to the right of the **Configured Network Management Systems (NMS)** box.

An **Alert** dialog box opens.
3. Click **OK** to delete the NMS.

Horizon deletes the selected NMS from the **Configured Network Management Systems (NMS)** box.

Configure Your NMS for Horizon

You must load the Ross Video and Horizon Management Information Base (MIB) files into your NMS to enable it to interpret the SNMP trap messages it receives from a Horizon SNMP agent. The Horizon MIB file describes the SNMP trap messages sent by the Horizon SNMP agent.

To load the Ross Video and OverDrive MIB files into your NMS

1. Get the **ROSS-VIDEO.mib** and **RWP-MIB.mib** files from one of the following locations:
 - Copy from the Horizon system (`C:\Program Files\Ross Video\Horizon\utilities\snmp`)
 - Download from the Ross Video web site (www.rossvideo.com)
2. Load the **ROSS-VIDEO.mib** file into your NMS.
3. Load the **RWP-MIB.mib** file into your NMS.

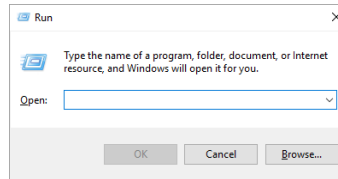
Configure the Windows SNMP Agent

To enable the Horizon SNMP agent to forward hardware SNMP trap messages to your NMS, you need to configure the Windows SNMP agent.

To configure the Windows SNMP agent:

1. From the Windows Desktop, press **Windows Key+R**.

The **Run** dialog box opens.

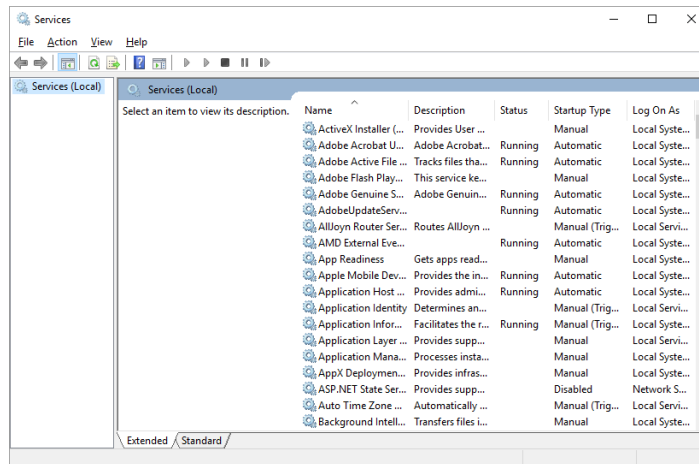


2. In the **Open** box, type the following application name:

```
services.msc
```

3. Click **OK**.

The **Services** window opens.

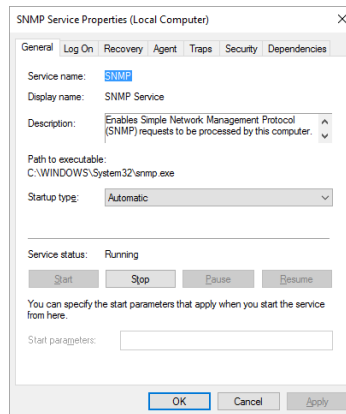


4. In the **Services** list, locate the **SNMP Service** service.

★ If you cannot find the **SNMP Service** service in the **Services** list, install the **SNMP Service** on your Horizon computer.

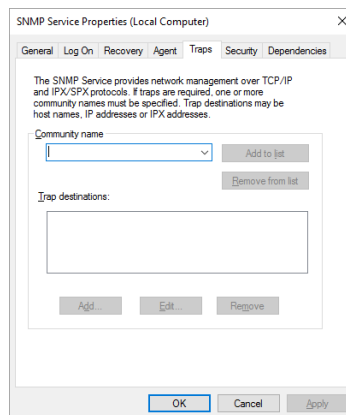
5. Right-click the **SNMP Service** service and select **Properties** from the shortcut menu.

The **SNMP Service Properties** dialog box opens.



6. Click the **Traps** tab.

The **Traps** tab opens.

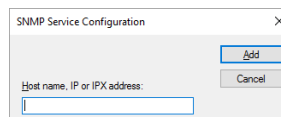


7. In the **Community name** box, enter the password that you set for the **Community String** in step <UI_Element>5 of the procedure “**To configure the Horizon SNMP agent**” on page 1–6.

8. Click **Add to list**.

9. In the **Trap destinations** section, click **Add**.

The **SNMP Service Configuration** dialog box opens.



10. In the **Host name, IP or IP address** box, enter localhost.

11. Click **Add**.

The **SNMP Service Configuration** dialog box closes.

12. In the **SNMP Service Properties** dialog box, click **OK**.

The **SNMP Service Properties** dialog box closes.

13. In the **Services** window, click **Restart** for the **SNMP Service** service.

14. Use the **File** menu to select **Exit**.

The **Services** window closes.

User Preferences

The Horizon administrator sets the default language, time zone, and font sizes for the all of the Horizon users on a Horizon system. Horizon users can use the User Preferences tab of the System panel to override the default language, time zone, and font sizes set by the Horizon administrator.

This chapter discusses the following topic:

- Set User Preferences


Set User Preferences

Horizon users can individually override the default Horizon user interface language, time zone, and font sizes set by the Horizon administrator for all users of a Horizon system.


★ You cannot user preferences from a mobile device, you must use a desktop computer to access the Configuration window.

To set the Horizon UI language, time zone, and font sizes

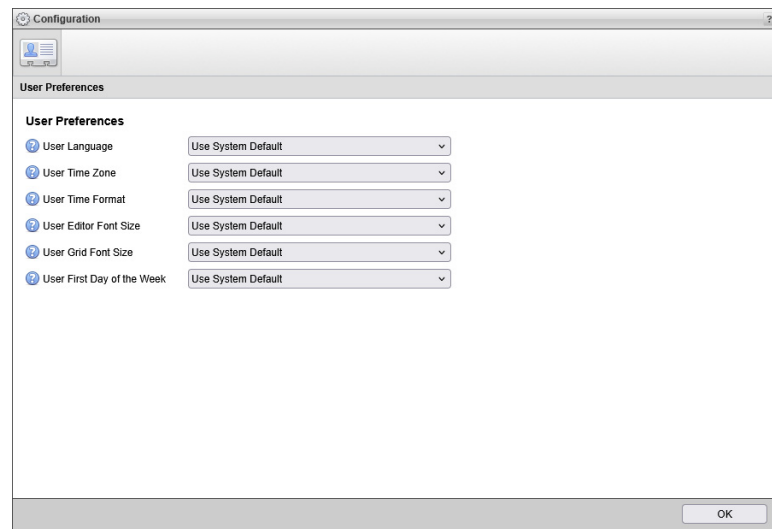
1. The user preferences that you set depend on the credentials that you use to log in to the Horizon web page.
 - **Administrator** — set the default Horizon user interface language, time zone, and font sizes set for all Horizon users. The default administrator login credentials are as follows:
 - › **Username** — root
 - › **Password** — <your_password>
 - **User** — set your own Horizon user interface language, time zone, and font sizes that override the defaults set by your Horizon administrator.

2. On the main toolbar, click the  **Configuration** icon.

The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **Preferences** icon.

The **User Preferences** panel of the **Configuration** window opens.



4. In the **User Preferences** tab, use the **User Language** list to select the user interface language that you want to use with Horizon. Select **Use System Default** to use the language set by the Horizon administrator.
5. Use the **User Time Zone** list to select the time zone which matches your physical location. Select **Use System Default** to use the time zone set by the Horizon administrator.
6. Use the **User Time Format** list to select the format in which to display the time, **12 hr** (2:45pm) or **24 hr** (14:45) format.
7. Use the **User Editor Font Size** list to select the font size that you want Horizon to display text in editor panels. You can select a font size from **6** to **32** points. Select **Use System Default** to use the editor font size set by the Horizon administrator.
8. Use the **User Grid Font Size** list to select the font size that you want Horizon to display text in panel grids. You can select a font size from **6** to **32** points. Select **Use System Default** to use the grid font size set by the Horizon administrator.

9. Use the **User First Day of the Week** list to select the first day of the week to display in the **Calendar** view of the **Assignment Manager**, **Task Schedule**, and **Custom Entity Manager** panels, and in the **Calendar Date** tool used to select dates. Select **Use System Default** to use the first day of the week set by the Inception administrator.
10. Click **OK**.
The **Configuration** window closes.
11. Log out of Inception and then log back in to activate your new user preference settings.

Configuring System Properties

This chapter provides instructions for configuring the general system properties of your Horizon system using the following tabs on the System configuration panel:

- **Database** — connect Horizon to the database that stores application data.
- **Licensing** — license Horizon features.
- **System** — set default preferences for users of a Horizon system.

This chapter discusses the following topics:

- Configure Database Connectivity
- Activating a Product Key for Horizon Server Software
- Reactivating a Product Key
- Deactivating a Product Key
- Manage File Systems
- Configure Default System Settings

Configure Database Connectivity

Horizon administrators can use a desktop computer to configure Horizon database connectivity settings through the Configuration window.


- ★ You cannot configure Horizon from a mobile device. The Configuration window is only accessible from a desktop computer.

Database connectivity settings enable you to set the database used by Horizon and the user account that Horizon uses to connect with the database.


To configure database connectivity

1. Use your Horizon administrator credentials to log in to the Horizon web page. The default administrator login credentials are as follows:

- **Username** — root
- **Password** — <your_password>

2. On the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

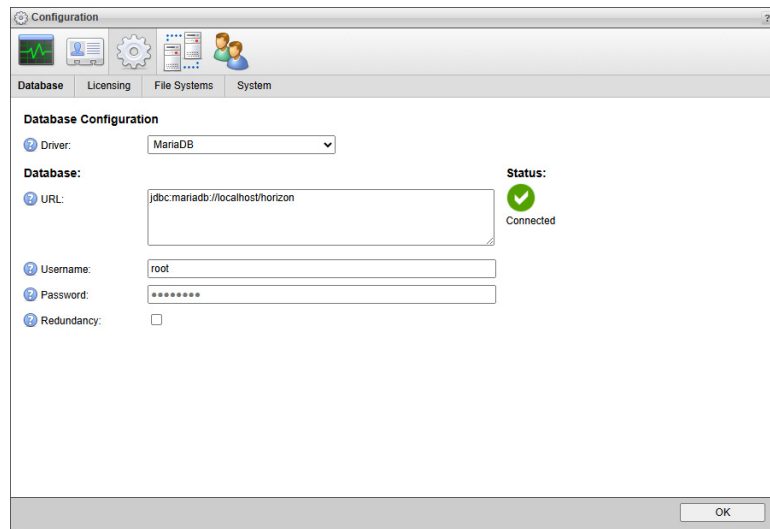
The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **System** icon.

The **System** panel opens.

4. Click the **Database** tab.

The **Database** tab opens.



5. Use the **Driver** list to select the database driver used to connect to the Horizon Database.
6. In the **URL** box, enter the JDBC URL that connects your Horizon system with the Horizon Database. For example, for a database named horizon on MariaDB, use the following URL:

```
jdbc:mariadb://localhost/horizon
```

7. In the **Username** box, enter the username that Horizon uses to access the database.
8. In the **Password** box, enter the password associated with the username.

For security purposes, dots replace the entered password.

9. In the bottom toolbar, click **OK**.

The **Configuration** window closes.

Activating a Product Key for Horizon Server Software

Ross Video uses product keys to manage user licenses for Horizon features. You can use your Horizon product key with the following licensing servers to license your Horizon Server software:

- **Ross Activation Licensing Server** — the Horizon Server must have access to the Internet to use the Ross Activation Licensing Server.
- **Ross Platform Manager** — use this licensing server when your Horizon Server does not have access to the Internet. The Ross Platform Manager must be installed on a computer in your local network that the Horizon Server can access. For information on setting up the Ross Platform Manager, refer to the *Ross Platform Manager Installation Guide*.

You can obtain a Horizon Server product key from Ross Video Technical Support.

For More Information on...


- contacting Ross Video Technical Support, refer to the section “**Contacting Technical Support**” on page 1–3.

Ross Activation Licensing Server

When your Horizon Server has access to the Internet, you can use the Ross Activation Licensing Server to activate your Horizon product key. You can obtain a Horizon product key from Ross Video Technical Support.

- ★ When you activate a Horizon product key, your Horizon Server computer must contact the Ross Activation Licensing Server through the Internet.

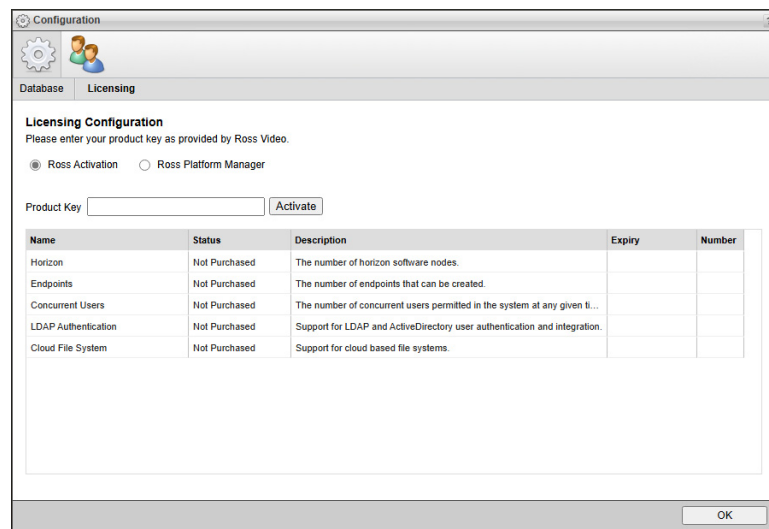
To use the Ross Activation Licensing Server to activate a Horizon product key

1. Obtain a Horizon product key from Ross Video Technical Support.
2. Verify that the Horizon Server computer can connect to the Internet.
3. On the **Configuration** window toolbar, click the  **System** icon.

The **System** panel opens.

4. Click the **Licensing** tab.

The **Licensing Configuration** tab opens.



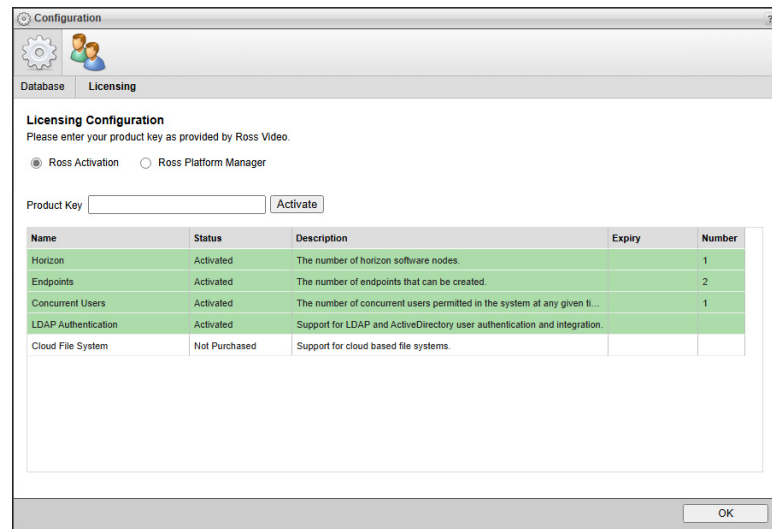
Name	Status	Description	Expiry	Number
Horizon	Not Purchased	The number of horizon software nodes.		
Endpoints	Not Purchased	The number of endpoints that can be created.		
Concurrent Users	Not Purchased	The number of concurrent users permitted in the system at any given ti...		
LDAP Authentication	Not Purchased	Support for LDAP and ActiveDirectory user authentication and integration.		
Cloud File System	Not Purchased	Support for cloud based file systems.		

5. Select the **Ross Activation** option.
6. In the **Product Key** box, enter the product key obtained from Ross Video Technical Support.
7. Click **Activate**.

After activating the entered product key, an **Alert** dialog box opens requesting a web browser window refresh.

- Click **OK**.

The **Alert** dialog box closes and the **Licensing Configuration** tab updates to display the feature licenses associated with the activated product key.



The **Status** column displays one of the following states:

Background	Status	Description
Green	Active	The feature is active and available to Horizon users.
Yellow	Expires in # days	The feature availability for Horizon users expires in the displayed number of days.
Red	Expired	The feature has expired and is no longer available to Horizon users.
Red	Invalid MAC	The feature license key is invalid for the active network interface card of the Horizon computer.
White	Not Purchased	The feature is not accessible to Horizon users, but it is available for purchase.

- Click **OK**.

The **Configuration** dialog box closes.

- Refresh your web browser window.

Horizon adds icons to the toolbar for the newly activated features, making the features accessible to Horizon users.

Ross Platform Manager

When your Horizon Server computer does not have access to the Internet, use the Ross Platform Manager licensing server to activate your Horizon product key. You can obtain a Horizon product key from Ross Video Technical Support.

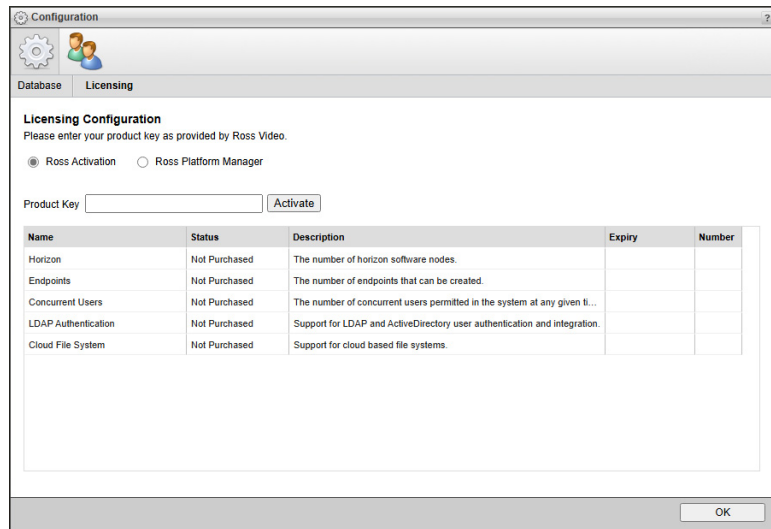
To use the Ross Platform Manager licensing server to activate product keys

- Obtain a Horizon product key from Ross Video Technical Support.
- Verify that the Horizon Server computer can connect to the Internet.
- On the **Configuration** window toolbar, click the **System** icon.

The **System** panel opens.

- Click the **Licensing** tab.

The **Licensing Configuration** tab opens.



- Select the **Ross Platform Manager** option.

- In the **Host** box, enter the IP address or hostname of your **Ross Platform Manager Server** computer.

- In the **Port** box, enter the network port number of your **Ross Platform Manager Server**.

Ross Platform Manager Servers in a Horizon system use port 3030 as the network port for unsecure HTTP connections. **Ross Platform Manager Servers** use port 443 for secure HTTPS connections.

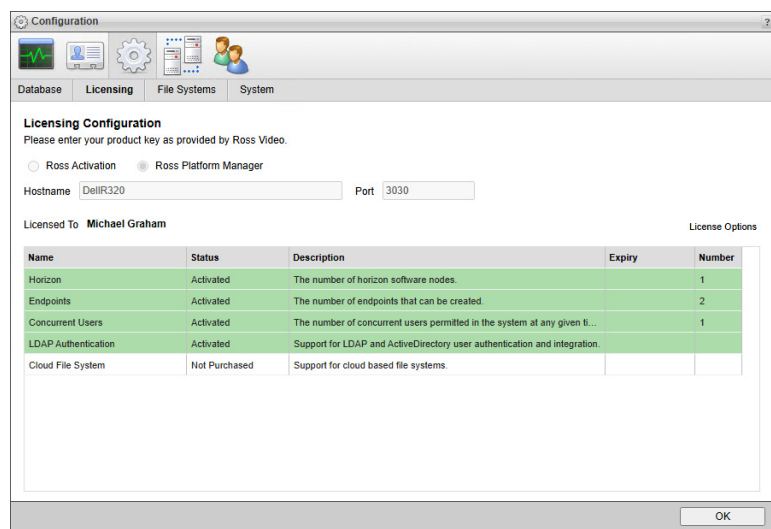
- In the **Product Key** box, enter the product key obtained from Ross Video Technical Support.

- Click **Activate**.






After activating the entered product key, an **Alert** dialog box opens requesting a web browser window refresh.

- Click **OK**.

The **Alert** dialog box closes and the **Licensing Configuration** tab updates to display the feature licenses associated with the activated product key.



The **Status** column displays one of the following states:

Background	Status	Description
 Green	Active	The feature is active and available to Horizon users.
 Yellow	Expires in # days	The feature availability for Horizon users expires in the displayed number of days.
 Red	Expired	The feature has expired and is no longer available to Horizon users.
 Red	Invalid MAC	The feature license key is invalid for the active network interface card of the Horizon computer.
 White	Not Purchased	The feature is not accessible to Horizon users, but it is available for purchase.

11. Click **OK**.

The **Configuration** dialog box closes.


12. Refresh your web browser window.

Horizon adds icons to the toolbar for the newly activated features, making the features accessible to Horizon users.

Reactivating a Product Key

After purchasing new features for a Horizon system, the Horizon product key requires reactivation to make the purchased features available to Horizon users.

To reactivate a Horizon product key

1. On the **Configuration** window toolbar, click the  **System** icon.

The **System** panel opens.

2. Click the **Licensing** tab.

The **Licensing Configuration** tab opens.

3. Click the **License Options** link.

The **Product Key** field displays the currently activate product key.

4. Click **Reactivate**.

After reactivating the product key, an **Alert** dialog box opens requesting a refresh of the web browser window.

5. Click **OK**.

The **Alert** dialog box closes, and the **Licensing Configuration** tab is updates to display with new feature licenses associated with the reactivated product key.

6. Click **OK**.

The **Configuration** dialog box closes.


7. Refresh your web browser window.

Horizon adds icons to the toolbar for the newly activated features, making them accessible to Horizon users.

Deactivating a Product Key

When you want to move Horizon Server software on another computer, you must first deactivate the Horizon Server product key on the current Horizon computer.

To deactivate a Horizon product key

1. On the **Configuration** window toolbar, click the  **System** icon.

The **System** panel opens.

2. Click the **Licensing** tab.

The **Licensing Configuration** tab opens.

3. Click the **License Options** link.

The **Product Key** field displays the currently activate product key.

4. Click **Deactivate**.

After deactivating the product key, an **Alert** dialog box opens.

5. Click **OK**.

The **Alert** dialog box closes, and the product key displayed in the **Product Key** box deactivates. You can use the deactivated product key to activate Horizon Server software on another computer.

Deactivating a product key unlicenses and removes Horizon user access to all the Horizon features associated with the product key.

6. Click **OK**.

The **Configuration** dialog box closes.

Manage File Systems

Inception uses files systems to store the media files contained in Inception media sources. You can define file systems to store media files on a local disk, a network accessible file share, or an external cloud storage service.

You should define a file system for each of your Inception media sources. After you define a file system, you can use the Media Sources tab to associate a file system with a media source.


For More Information on...

- associating a file system with a media source, refer to chapter “**Configuring Media Sources**” on page 16–1.

Add a File System

When you add a file system, you name the file system and select the location to store media source media files.

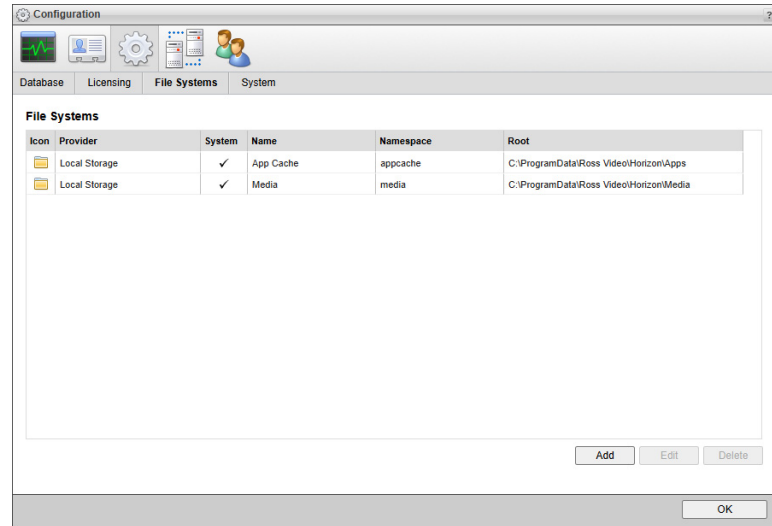
To add a file system

1. On the **Configuration** window toolbar, click the  **System** icon.

The **System** panel opens.

2. Click the **File Systems** tab.

The **File Systems** tab opens.



3. Click **Add**.

The **Create File System** settings open.

4. Use the **Provider** list to select the type of file system to add:

- **Abekas** — a shared directory on an Abekas Mira or Tria video server.
- **Amazon S3** — a directory on the Amazon Simple Storage Service, an external service that you require an account to use.
- **Azure Blob Storage** — a directory on the Microsoft Azure Blob storage service, an external service that you require an account to use.
- **Cloud Gateway** — a file system configured on a Ross Cloud Gateway.
- **FTP** — a directory on an FTP server.
- **Google Cloud Storage** — a directory on the Google Cloud Storage service, an external service that you require an account to use.
- **Grass Valley Stratus** — use Grass Valley Stratus Media Asset Management as a file system.
- **Local Storage** — a directory on your Inception Server local disk or a network accessible file share.

5. Click **Next**.

The **Create File System** settings open for the selected **Provider**.

6. Use the steps for the selected **Provider** to define the file system.

Abekas

- a. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- b. In the **Name** box, enter a name for the file system.
- c. In the **Root** box, enter the directory path for the root directory of the Abekas video server.
- d. In the **Host** box, enter the hostname or IP address of the Abekas video server.
- e. In the **Port** box, enter the port number that the Abekas video server uses to communicate with your Inception Server.
- f. Select the **Enable Direct Access** check box to allow external devices to directly access files on this file system via a network share. When you select this option, you must also create a public network share that maps to the file system root directory.

Amazon S3

- a. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- b. In the **Name** box, enter a name for the file system.
- c. In the **Bucket** box, enter the name of the Amazon S3 bucket in which to store file system files.
- d. In the **Access Key** box, enter the access key for the selected Amazon S3 bucket.
- e. In the **Access Secret** box, enter the access secret for the selected Amazon S3 bucket.
- f. In the **Root** box, enter the directory path for the file system root directory in the selected Amazon S3 bucket.
- g. Select the **Enable Direct Access** check box to allow external devices to directly access files on this file system via a network share. When you select this option, you must also create a public network share that maps to the file system root directory.

Azure Blob Storage

- a. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- b. In the **Name** box, enter a name for the file system.
- c. In the **Container** box, enter the name of the Microsoft Azure Blob Storage container in which to store file system files.
- d. In the **Account Name** box, enter the account name for the selected Microsoft Azure Blob Storage container.
- e. In the **Account Key** box, enter the account key for the selected Microsoft Azure Blob Storage container.
- f. In the **Root** box, enter the directory path for the file system root directory in the selected Microsoft Azure Blob Storage container.
- g. Select the **Enable Direct Access** check box to allow external devices to directly access files on this file system via a network share. When you select this option, you must also create a public network share that maps to the file system root directory.

Cloud Gateway

- a. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- b. In the **Name** box, enter a name for the file system.
- c. In the **Gateway ID** box, enter the ID of the Ross Cloud Gateway that contains the file system access.
- d. In the **Remote Namespace** box, enter the name that Inception uses to access the remote file system on a Ross Cloud Gateway.

FTP

- a. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- b. In the **Name** box, enter a name for the file system.
- c. In the **Host** box, enter the hostname or IP address of the FTP server.
- d. In the **Port** box, enter the port number that the FTP server uses to communicate with your Inception Server.
- e. In the **Username** box, enter the username for the FTP account that Inception uses to access the FTP server.
- f. In the **Password** box, the password for the FTP account.

- g. In the **Root** box, the path to the directory on the FTP server to open upon initial connection.
- h. Select the **Enable Direct Access** check box to allow external devices to directly access files on this file system via a network share. When you select this option, you must also create a public network share that maps to the file system root directory.

Google Cloud Storage

- a. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- b. In the **Name** box, enter a name for the file system.
- c. In the **Bucket** box, enter the name of the Google Cloud Storage bucket in which to store file system files.
- d. Click **Browse** to the right of the **Credentials** box to use the **Open** dialog box to select a file that contains Google Cloud JSON credentials for your Google Cloud Storage.
- e. In the **Project ID** box, enter the Google Cloud project ID for the selected Google Cloud Storage bucket.
- f. In the **Private Key ID** box, enter the private key ID for the selected Google Cloud Storage bucket.
- g. In the **Private Key** box, enter the private key for the selected Google Cloud Storage bucket.
- h. In the **Client ID** box, enter the Google Cloud client ID for the selected Google Cloud Storage bucket.
- i. In the **Client E-Mail** box, enter the Google Cloud client email address for the selected Google Cloud Storage bucket.
- j. In the **Root** box, enter the directory path for the file system root directory in the selected Google Cloud Storage bucket.
- k. Select the **Enable Direct Access** check box to allow external devices to directly access files on this file system via a network share. When you select this option, you must also create a public network share that maps to the file system root directory.

Grass Valley Stratus

- a. In the **Name** box, enter a name for the file system.
- b. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- c. In the **Host** box, the hostname or IP address of your Grass Valley Stratus system.
- d. In the **Username** box, the username for the Grass Valley Stratus account that Inception uses to access your Grass Valley Stratus system.
- e. In the **Password** box, the password for the Grass Valley Stratus account.
- f. In the **Device** box, enter the name of the device on your Grass Valley Stratus system. In most instances the device name is **SummitMDI**.
- g. In the **Root** box, the path to the directory on your Grass Valley Stratus system to open upon initial connection.
- h. Select the **Preserve File References** check box to preserve original references to files in the MAM, even when files move. For example: when an asset moves to a new location in the MAM, Inception maintains the file reference in the new location as not to break the link.
- i. Select the **Enable MOS Object Source** check box to enable the file system to be configured as a source for MOS objects.

Local Storage

- a. In the **Name** box, enter a name for the file system.
- b. In the **Namespace** box, enter the name that Inception uses to access the file system.
Once you create a file system, you cannot change the **Namespace** set for the file system.
- c. In the **Root** box, enter the directory path for the file system root directory on your Inception Server local disk or a network accessible file share.
- d. Select the **Preserve File References** check box to preserve original references to files in the MAM, even when files move. For example: when an asset moves to a new location in the MAM, Inception maintains the file reference in the new location as not to break the link.

7. Click **Create**.

Inception adds the new file system to the **File Systems** list.


For More Information on...

- media sources, refer to the chapter “**Configuring Media Sources**” on page 16–1
- how to edit file systems, refer to the section “**Edit a File System**” on page 1–11
- how to delete file systems, refer to the section “**Delete a File System**” on page 1–12

Edit a File System

★ You cannot edit the Namespace of an existing file system.

To edit a file system

1. On the **Configuration** window toolbar, click the  **System** icon.
The **System** panel opens.
2. Click the **File Systems** tab.
The **File Systems** tab opens, listing all the available file systems.
3. From the **File Systems** list, select the file system to edit.
4. Click **Edit**.
The **Create File System** settings open.
5. Use the **Provider** list to select a file system type for the selected file system:
6. Click **Next**.
The **Edit File System** settings open for the selected **Provider**.
7. Edit the file system settings as required.
8. Click **Save**.


For More Information on...

- how to create file systems, refer to the section “**Add a File System**” on page 1–7
- how to delete file systems, refer to the section “**Delete a File System**” on page 1–12

Delete a File System

Deleting a file system disconnects it from associated media sources but does not delete the media files contained in the file system root directory.

To delete a file system

1. On the **Configuration** window toolbar, click the  **System** icon.
The **System** panel opens.
2. Click the **File Systems** tab.
The **File Systems** tab opens, listing all the available file systems.
3. From the **File Systems** list, select the file system to delete.
4. Click **Delete**.
A confirmation dialog box opens.
5. Click **OK**.
Inception deletes the selected file system.


For More Information on...

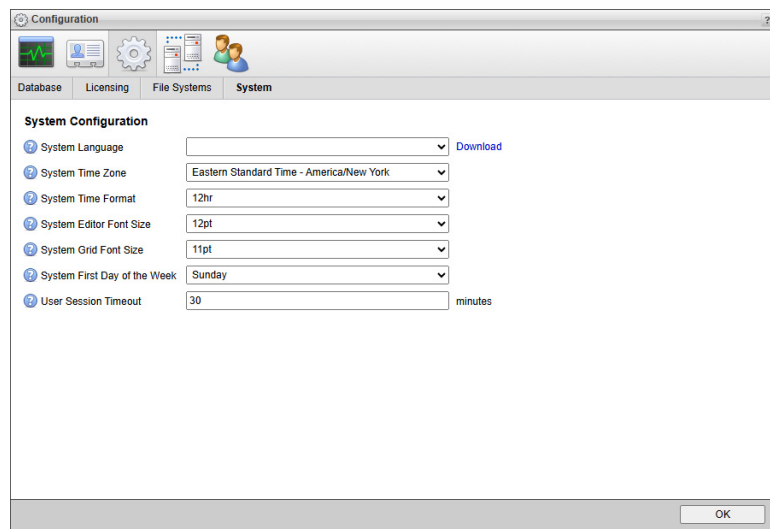
- how to create file systems, refer to the section “**Add a File System**” on page 1–7
- how to edit file systems, refer to the section “**Edit a File System**” on page 1–11

Configure Default System Settings

Horizon administrators can set the default language, time zone, font sizes, and data sharing folder for all of the users of a Horizon system.

To set the default user preferences for a Horizon Server

1. On the **Configuration** window toolbar, click the  **System** icon.
The **System** panel opens.
2. Click the **System** tab.
The **System** tab opens.



3. Use the **System Language** list to select the Inception user interface language for all users of a Horizon Server. Inception users can override the selected **System Language** by selecting a **User Language** in the **Preferences** panel.

If you want to download a Horizon language pack, follow these steps.

- a. Click the **Download** link.

The **Download Selected Language Pack** and **Download Empty Language Pack** buttons display below the **System Language** list.

- b. Click **Download Selected Language Pack** to download the selected **System Language** to your computer as a Horizon language pack file.
- c. Click **Download Empty Language Pack** to download a template that you can use to create a Horizon language pack file.
4. Use the **System Time Zone** list to select the time zone which matches the physical location of the Inception Server computer. Inception users can override the selected **System Time Zone** by selecting a **User Time Zone** in the **Preferences** panel.
5. Use the **System Time Format** list to select **12hr** or **24hr** as the time format for all users of a Horizon Server. Inception users can override the selected **System Time Format** by selecting a **User Time Format** in the **Preferences** panel.
6. Use the **System Editor Font Size** list to select the font size, 6 to 32 points, that Inception uses to display text in editor panels. Inception users can override the selected **System Editor Font Size** by selecting a **User Editor Font Size** in the **Preferences** panel.
7. Use the **System Grid Font Size** list to select the font size, 6 to 32 points, that Inception uses to display text in panel grids. Inception users can override the selected **System Grid Font Size** by selecting a **User Grid Font Size** in the **Preferences** panel.
8. Use the **System First Day of the Week** list to select the first day of the week to display in the **Calendar** view of the **Assignment Manager**, **Task Schedule**, and **Custom Entity Manager** panels, and in the **Calendar Date** tool used to select dates. Inception users can override the selected **System First Day of the Week** by selecting a **User First Day of the Week** in the **Preferences** panel.
9. In the **User Session Timeout** box, enter the number of minutes to wait before automatically logging out inactive users.

For More Information on...

- overriding default user preferences, refer to the section “**Set Personal User Preferences**” on page 3–2.

Managing Inception Nodes

Multiple Inception Servers can connect to a single database to form a Redundant Node Inception system. Each Inception Server in a Redundant Node Inception system acts as a node to run one or more Inception services to load balance the overall system.

- ★ To configure a Redundant Node Inception system you must have licenses for two or more Inception Servers. Please contact Ross Video to purchase additional Inception Servers licenses for your Redundant Node Inception system.

This chapter discusses the following topics:

- Configure Database Connectivity
- View the Nodes in Your System
- Manage Inception Services

Configure Database Connectivity

Each Inception Server acting as a node in your Redundant Node Inception system must connect to the same database. You must log in to each Inception Server as a system administrator and configure the server to connect to the same database as the other servers in your Redundant Node Inception system.

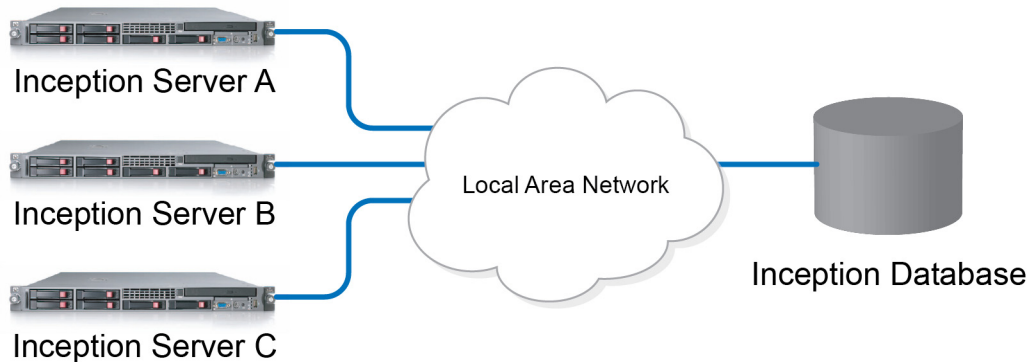




Figure 1.1 Database Connection in a Redundant Node Inception System

To configure database connectivity for each node

1. Log in to your Inception Server as a system administrator.
2. On the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

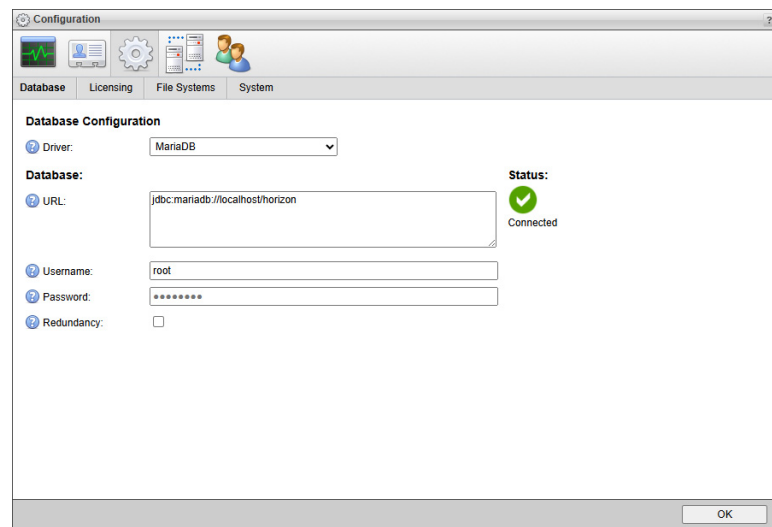
The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **System** icon.

The **System** panel opens.

4. Click the **Database** tab.

The **Database** tab opens.



- Use the **Driver** list to select the database driver used to connect to the Inception Database.
Select the same Driver for each Inception Server node in your Redundant Node Inception system.
- In the **URL** box, enter the JDBC URL that connects your Horizon system with the Horizon Database. For example, for a database named horizon on MariaDB, use the following URL:

```
jdbc:mariadb://localhost/horizon
```


Enter the same URL for each Inception Server node in your Redundant Node Inception system.

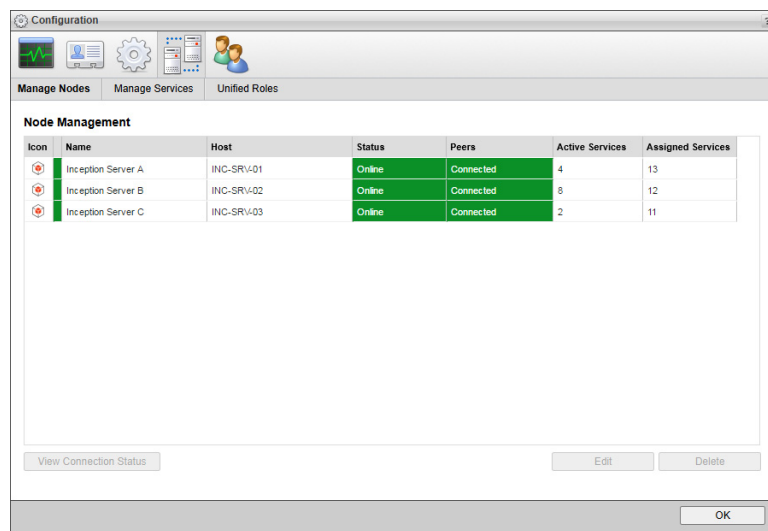
- In the **Username** box, enter the username that Inception uses to access the database.
Enter the same Username for each Inception Server node in your Redundant Node Inception system.
- In the **Password** box, enter the password associated with the username.
For security purposes, dots replace the entered password. Enter the same Password for each Inception Server node in your Redundant Node Inception system.
- Repeat this procedure on each Inception Server node in your Redundant Node Inception system.

View the Nodes in Your System

After you configure all of the Inception Server nodes in your Redundant Node Inception system to connect to the same database, you can view the nodes through the Node Management tab in the Configuration window.

To view the nodes in your system

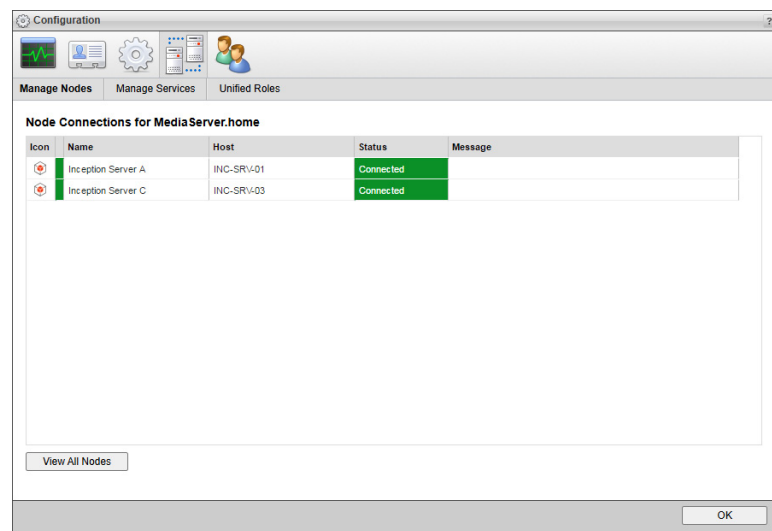
- On the **Configuration** window toolbar, click the  **Network** icon.
The **Node Management** panel opens.
- Click the **Manage Nodes** tab.
The **Manage Nodes** tab opens.



The **Node Management** table displays the following information about the nodes in a Redundant Node Inception system:

- **Icon** — this column displays an icon that identifies the node.
 - **Name** — this column displays the name of the node.
 - **Host** — this column displays the host name of the node computer.
 - **Status** — this column displays the current status of the node.
 - **Peers** — this column displays the current connection status between the node and the other nodes in the Redundant Node Inception system.
 - **Active Services** — this column displays the number of Inception services currently running on the node.
 - **Assigned Services** — this column displays the number of Inception services assign to run on the node.
3. To view the nodes connected to a selected node, select the node in the **Node Management** table and then click **View Connection Status**.

The **Node Connections** page opens for the selected node.



The **Node Connections** table displays the following information about the nodes connected to a selected node:

- **Icon** — this column displays an icon that identifies the node.
 - **Name** — this column displays the name of the node.
 - **Host** — this column displays the host name of the node computer.
 - **Status** — this column displays the current connection status between the selected node and the listed node.
 - **Message** — this column displays additional information about the connection between nodes.
4. Click **View All Nodes** to return to the **Node Management** page of the **Manage Nodes** tab.

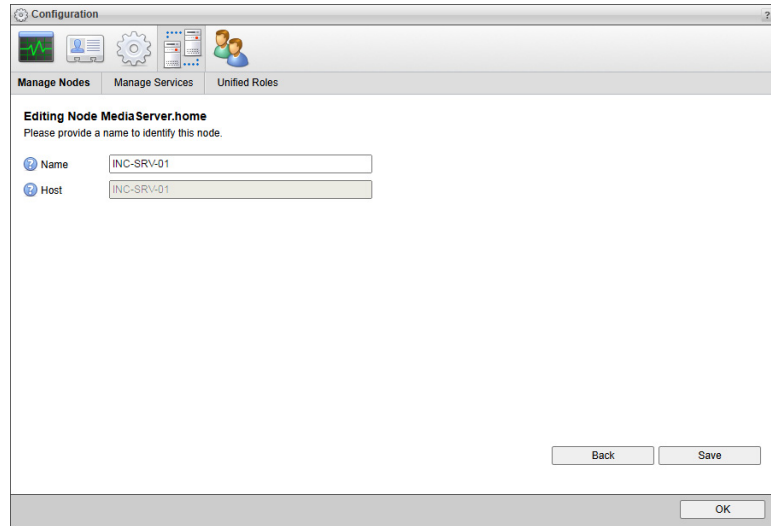
Change Node Names

To help you keep track of the nodes in your Redundant Node Inception system, you can edit the node names.

To change the name of a node

1. In the **Node Management** table, select the node that you want to change the name.
2. Click **Edit** tab.

The **Editing Nodes** page opens.



3. In the **Name** box, enter a name for the node.
4. Click **Save** to save the new node name.


The **Node Management** page opens.

Manage Inception Services

Each Inception Server in a Redundant Node Inception system acts as a node to run one or more Inception services to load balance the overall system. For each available Inception service, you can choose the node to run the service and the nodes that the Inception service can use to continue running if the active node were to falter.

★ You must assign an Inception service to at least one node to make it available to Inception users.

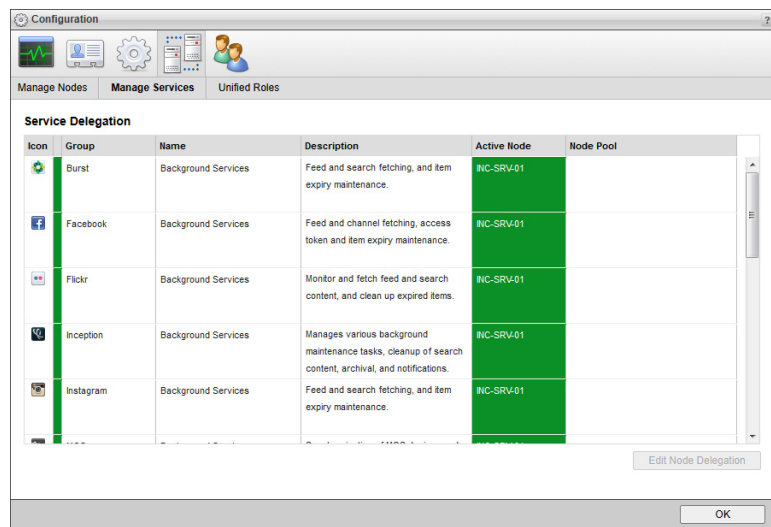
To assign Inception services to nodes

1. On the **Configuration** window toolbar, click the  **Network** icon.

The **Node Management** panel opens.

2. Click the **Manage Services** tab.

The **Manage Services** tab opens.

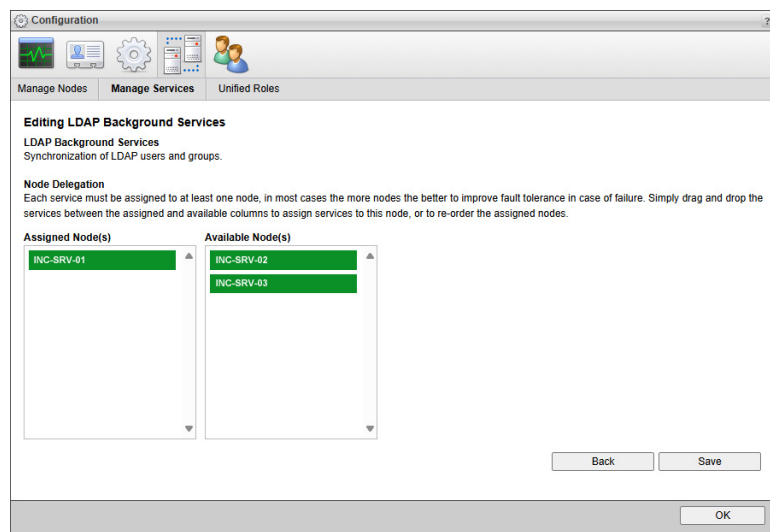


The **Service Delegation** table displays the following information about Inception services and the nodes that the services run on in a Redundant Node Inception system:

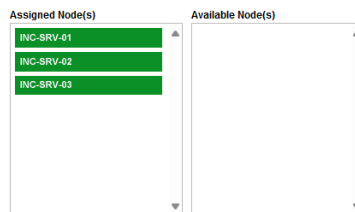
- **Icon** — this column displays an icon that identifies the group to which the Inception service belongs.
- **Group** — this column displays the name of the group to which the Inception service belongs.
- **Name** — this column displays the name of the Inception service.
- **Description** — this column displays a description of the Inception service.
- **Active Node** — this column displays the hostname of the node that is currently running the Inception service.
- **Node Pool** — this column lists the hostnames of the nodes that the Inception service can use to continue running if the active node were to falter.

3. In the **Service Delegation** table, select the Inception service to assign to a node.
4. Click **Edit Node Delegation**.

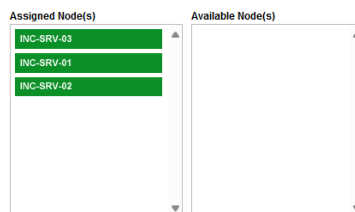
The **Editing Background Services** page open for the selected Inception service.



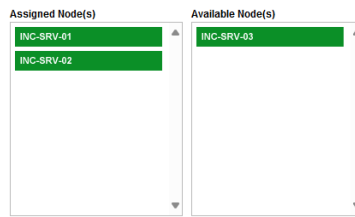
5. To assign the selected Inception Service to a node, drag the node to assign from the **Available Node(s)** list to the **Assigned Node(s)** list.



6. To change the priority of a node, drag the node up or down in the **Assigned Node(s)** list. The selected Inception service starts running on the node at the top of the **Assigned Node(s)** list, the active node.



7. To unassign the selected Inception Service from a node, drag the node to unassign from the **Assigned Node(s)** list to the **Available Node(s)** list.



8. After assigning the selected Inception services to the appropriate nodes, click **Save**. Inception displays the updated Inception service in the **Service Delegation** table.

Configuring User Permissions

User permissions define the actions users have permission to perform and determine which buttons, messages, and controls they see in the Horizon user interface. In most Horizon systems, the Horizon administrator assigns users with the user permissions that are appropriate for their role in using Horizon.

User permissions are role-based. Each user account has one or more user roles, such as journalist or producer. Each user role has a set of permissions. The role-based permissions model enables administrators to precisely define user permissions for each user, to ensure conformance to your organization's business processes.

A Horizon administrator can create user accounts and roles within Horizon, or imported them from a Lightweight Directory Access Protocol (LDAP) server. Horizon can use a combination of created and imported user accounts and roles.

To configure user permissions, you create user roles and assign permissions to them, and then create user accounts and assign user roles to them.

User permission settings belong to the following categories, represented by tabs on the Users configuration panel:

- **Manage Users** — properties related to individual users, including role assignments.
- **Manage Roles** — properties related to user roles, including permissions associated with user roles.

This chapter discusses the following topics:

- Create a User Role
- Modify a User Role
- Delete a User Role
- Create a User Account
- Modify a User Account
- Delete a User Account


Create a User Role

To create a user role


1. Use your Horizon administrator credentials to log in to the Horizon web page.

The default administrator login credentials are as follows:

- **Username** — root
- **Password** — <your_password>

2. On the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

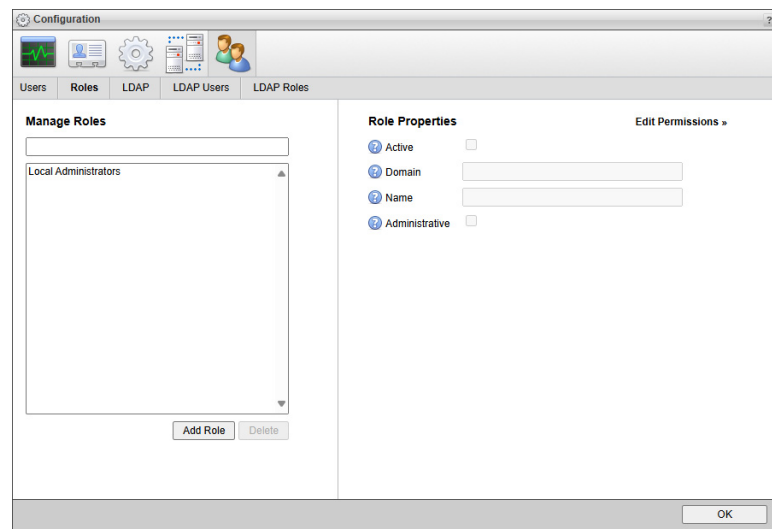
The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **Users** icon.

The **Users** panel opens.

4. Click the **Manage Roles** tab.

The **Manage Roles** tab opens.



5. In the **Manage Roles** section, click **Add Role**.

Horizon automatically saves property values set for a new user role.

6. In the **Role Properties** section, select the **Active** check box to make the role operational.

Clear this check box to deactivate a user role. Inactive roles cannot convey permissions to user accounts.

7. In the **Name** box, enter a name for the user role.

8. Select the **Administrative** check box to grant the user role all user permissions and enable the user role to configure all administrative settings.

Clear this check box to only include selected permissions with the user role.

9. Click **Edit Permissions**.

The **Role Permissions** list opens.

10. In the **Role Permissions** list, select the permissions to assign to the user role.

Keep in mind the following point as you assign permission to a user role:

- Permission assignment changes save automatically.
- Background shading delineates category headings from role permissions. To select or deselect all permissions in a category, select or clear the check box in the category heading.
- Permissions displayed in **Bold Text** are assignable to all accounts or to selected accounts:
 - › If you want to assign the permission for all accounts, select the bolded permission. This setting also applies to any accounts created in the future.
 - › If you want to assign the permission for selected accounts, clear the bolded permission and then select individual accounts from the list below the bolded permission name.
 - › If you do not want to assign the permission for any accounts, clear all accounts in the list.
- To select all permissions in the entire list, click **Select All**.

Use this option to assign all permissions to the role, or to assign most of the permissions by selecting all of them and then clearing the ones you do not want to assign.

- To clear all permissions, click **Deselect All**.

Use this option to assign only a few permissions to the role, by clearing all of them and then selecting only the ones you want to assign.

After finishing the configuration of a user role, you can assign it to a user.


For More Information on...

- user roles, refer to the sections “**Modify a User Role**” on page 1–3, and “**Delete a User Role**” on page 1–4.
- user accounts, refer to the sections “**Create a User Account**” on page 1–4, “**Modify a User Account**” on page 1–6, and “**Delete a User Account**” on page 1–7.

Modify a User Role

Within Horizon you are only able to modify the properties of user roles created in Horizon. To modify roles (groups) imported from an LDAP directory server, you must modify them on the LDAP directory server.

To modify a user role

1. On the **Configuration** window toolbar, click the  **Users** icon.

The **Users** panel opens.

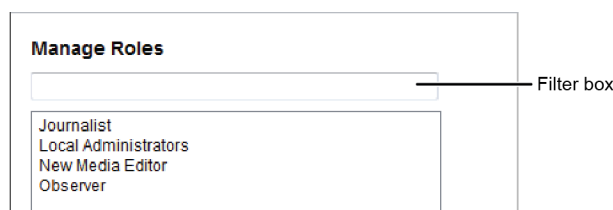
2. Click the **Manage Roles** tab.

The **Manage Roles** tab opens.

3. In the **User Role** list, select the name of the user role to modify.

You can filter the **User Role** list by typing any of the following information in the **Filter** box above the list:

- Any part of a user role name. As you enter a user role name, the list automatically updates to only show user roles that match what you have entered.
- Enter `local` to list only the user roles created in Horizon.
- Enter `LDAP` to list only the user roles imported from an LDAP directory.



4. In the **Role Properties** section, edit the user role properties as required.
Horizon automatically saves property value changes made to a user role.
5. Click **Edit Permissions**.
The **Role Permissions** list opens.
6. In the **Role Permissions** list, edit the user role permission assignments as required.
Horizon automatically saves permission assignment changes made to a user role and applies the changes to all of the users assigned to the user role.

For More Information on...


- user roles, refer to the sections “**Create a User Role**” on page 1–2, and “**Delete a User Role**” on page 1–4.
- user accounts, refer to the sections “**Create a User Account**” on page 1–4, “**Modify a User Account**” on page 1–6, and “**Delete a User Account**” on page 1–7.

Delete a User Role

You can delete user roles created in Horizon.

★ You cannot delete user roles (groups) imported from an LDAP directory server.

To delete a user role


1. On the **Configuration** window toolbar, click the  **Users** icon.
The **Users** panel opens.
2. Click the **Manage Roles** tab.
The **Manage Roles** tab opens.
3. In the **User Role** list, select the name of the user role to delete.
4. Click **Delete**.
A confirmation message opens, asking you if you want to delete the selected user role.
5. Click **OK**.
Horizon deletes the selected user role from the system and from assigned users. Deleting a user role from a user removes the permissions contained in the user role from the user.

For More Information on...

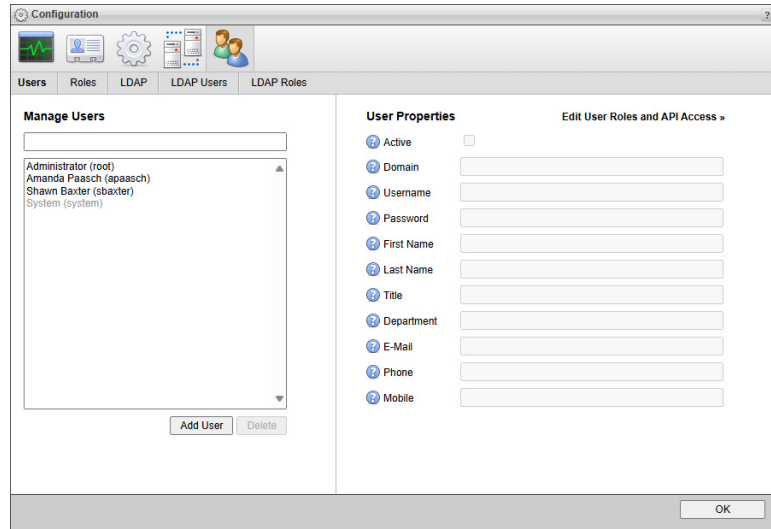
- user roles, refer to the sections “**Create a User Role**” on page 1–2, and “**Modify a User Role**” on page 1–3.
- user accounts, refer to the sections “**Create a User Account**” on page 1–4, “**Modify a User Account**” on page 1–6, and “**Delete a User Account**” on page 1–7.

Create a User Account

To create a user account

1. On the **Configuration** window toolbar, click the  **Users** icon.
The **Users** panel opens.
2. Click the **Manage Users** tab.

The **Manage Users** tab opens.



3. In the **Manage Users** section, click **Add User**.

Horizon automatically saves property values set for a new user.

4. In the **User Properties** section, select the **Active** check box to make the user operational.

Clear this check box to deactivate a user. Horizon retains information associated with an inactive user account, but does not allow you to use the account to log in to your Horizon system.

5. In the **Username** box, enter a name for the user.

Use this username to log in to your Horizon system. Usernames are case sensitive.

6. In the **Password** box, enter a password of at least five characters for the user. All user accounts must have a password.

Use this password is along with the set username to log in to your Horizon system. Passwords are case sensitive.

7. In the **First Name** box, enter the first or proper name of the user.

8. In the **Last Name** box, enter the last or family name of the user.

After logging in to Horizon with a username and password, the status bar displays the first and last name associated with the username.

9. In the **Title** box, enter the job title of the user within the organization.

10. In the **Department** box, enter the department to which the user belongs within the organization.

11. In the **E-Mail** box, enter the corporate e-mail address of the user.

12. In the **Phone** box, enter the corporate telephone number of the user.

13. In the **Mobile** box, enter the mobile telephone number of the user.

14. Click **Edit User Roles**.

The **User Roles** list opens.

15. In the **User Roles** list, select the check boxes associated with the user roles to assign to the user. Clear the check box associated with a user role to unassign it from the user.


For More Information on...

- user accounts, refer to the sections “**Modify a User Account**” on page 1–6, and “**Delete a User Account**” on page 1–7.
- user roles, refer to the sections “**Create a User Role**” on page 1–2, “**Modify a User Role**” on page 1–3, and “**Delete a User Role**” on page 1–4.

Modify a User Account

You can modify the properties of user accounts created in Horizon. If you want to modify users imported from an LDAP directory server, you must change them on the LDAP directory server.

To modify a user account

1. On the **Configuration** window toolbar, click the  **Users** icon.

The **Users** panel opens.

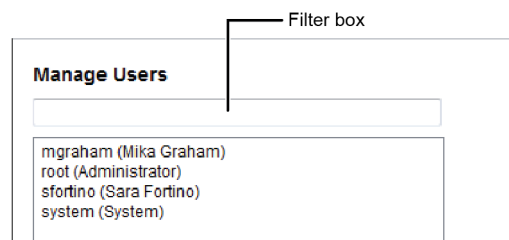
2. Click the **Manage Users** tab.

The **Manage Users** tab opens.

3. In the **Users** list, select the name of the user to modify.

You can filter the **Users** list by typing any of the following information in the **Filter** box above the list:

- Any part of a user name. As you enter a user name, the list automatically updates to only show user names that match what you have entered.
- Enter `local` to list only the users created in Horizon.
- Enter `LDAP` to list only the users imported from an LDAP directory.



4. In the **User Properties** section, edit the user properties as required.

Horizon automatically saves property value changes made to a user.

5. Click **Edit User Roles**.

The **User Roles** list opens.

6. In the **User Roles** list, edit the user roles assignments as required.

Horizon automatically saves user role assignment changes made to a user.

For More Information on...


- user accounts, refer to the sections “**Create a User Account**” on page 1–4, and “**Delete a User Account**” on page 1–7.
- user roles, refer to the sections “**Create a User Role**” on page 1–2, “**Modify a User Role**” on page 1–3, and “**Delete a User Role**” on page 1–4.

Delete a User Account

You can delete user accounts created in Horizon.

★ You cannot delete user accounts imported from an LDAP directory server.

To delete a user account

1. On the **Configuration** window toolbar, click the  **Users** icon.
The **Users** panel opens.
2. Click the **Manage Users** tab.
The **Manage Users** tab opens.
3. In the **Users** list, select the name of the user to delete.
4. Click **Delete**.
A confirmation message opens, asking you if you want to delete the selected user.
5. Click **OK**.
Horizon deletes the selected user.
6. After completing your configuration tasks, click **OK** in the lower toolbar to close the **Configuration** panel.

For More Information on...

- user accounts, refer to the sections “**Create a User Account**” on page 1–4, and “**Modify a User Account**” on page 1–6.
- user roles, refer to the sections “**Create a User Role**” on page 1–2, “**Modify a User Role**” on page 1–3, and “**Delete a User Role**” on page 1–4.

Configuring LDAP Authentication

Lightweight Directory Access Protocol (LDAP) is a protocol for accessing and maintaining distributed directory information services over a network. Horizon can import data related to user accounts and user roles (groups) from an LDAP directory server. The **Manage Users** and **Manager Roles** tabs lists users and user roles imported from LDAP directory servers alongside user accounts and user roles created in Horizon. You cannot alter the properties of imported user accounts and user roles.

Horizon configuration settings related to LDAP belong to the following categories, represented by tabs on the Users configuration panel:

- **LDAP Configuration** — properties related to establishing connectivity with an LDAP directory server.
- **LDAP User Configuration** — mappings to enable Horizon to import user accounts from the LDAP directory server.
- **LDAP Role Configuration** — mappings to enable Horizon to import user roles (groups) from the LDAP directory server.

This chapter discusses the following topics:

- Connect to an LDAP Directory Server
- Map to LDAP User Data
- Map to LDAP Group (Role) Data

Connect to an LDAP Directory Server


Your network administrator can provide you with the settings required to connect to the LDAP directory server in your organization.

To connect to an LDAP directory server


1. Use your Horizon administrator credentials to log in to the Horizon web page.

The default administrator login credentials are as follows:

- **Username** — root
- **Password** — <your_password>

2. On the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

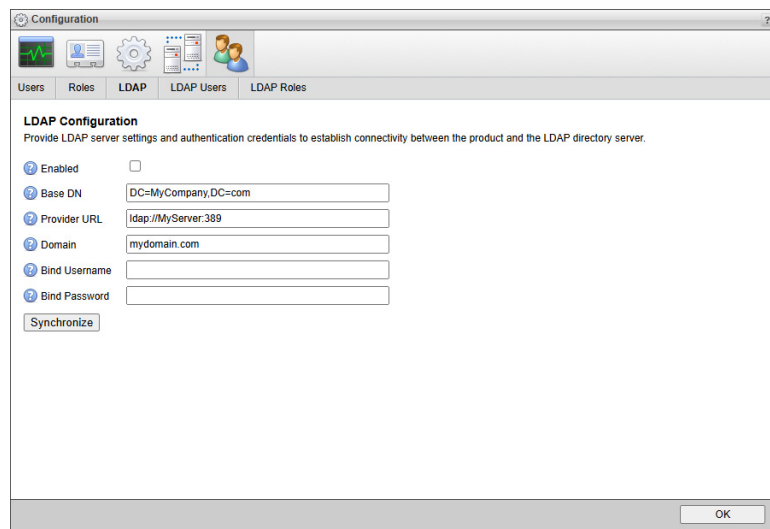
The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **Users** icon.

The **Users** panel opens.

4. Click the **LDAP Configuration** tab.

The **LDAP Configuration** tab opens.



5. Select the **Enabled** box to enable LDAP user authentication.

If you clear this box, users are only able to log in to your Horizon system with user accounts created by Horizon.

6. In the **Base DN** box, enter the name of the root LDAP node for user data.

Example: DC=MyCompany,DC=com

7. In the **Provider URL** box, enter the URL of the LDAP provider, with optional port.

Example: ldap://MyServer:389

8. In the **Domain** box, enter the domain name to append to users upon login.

Example: rossvideo.com

9. In the **Bind Username** box, enter the distinguished name (DN) used to log in to the directory server.

10. In the **Bind Password** box, enter the password used to log in to the directory server.

11. Click **Synchronize** to synchronize your Horizon Server with the LDAP directory server used by your system.

For More Information on...

- how to import LDAP user account data, refer to the section “**Map to LDAP User Data**” on page 1–3
- how to Import LDAP user role data, refer to the section “**Map to LDAP Group (Role) Data**” on page 1–4

Map to LDAP User Data

You can synchronize users between an LDAP directory server and the Users table of the Horizon Database.

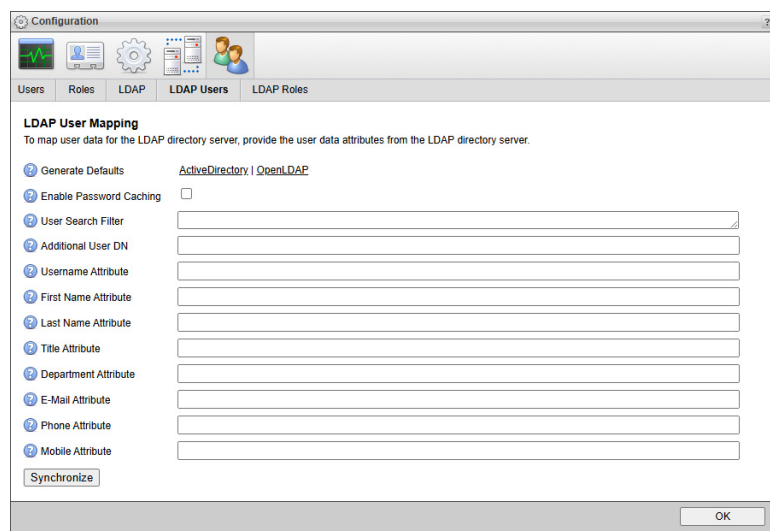
To map to LDAP user data

1. On the **Configuration** window toolbar, click the  **Users** icon.

The **Users** panel opens.

2. Click the **LDAP Users** tab.

The **LDAP Users** tab opens.



3. To populate the **LDAP User Configuration** tab with editable default values, click one of the following **Generate Defaults** links:

- **Active Directory** — your organization uses Active Directory.
- **OpenLDAP** — your organization uses an OpenLDAP directory server.

4. Select the **Enable Password Caching** check box to cache encrypted user password data on the Horizon system and use this data for user authentication when Horizon is unable to contact the directory server.
5. In the **User Search Filter** box, enter a valid LDAP query to define the filter that returns a list of potential Horizon users.

During LDAP user synchronization, Horizon only imports LDAP users who meet the criteria of the LDAP User Search filter into the Horizon Database. During LDAP user synchronization, Horizon deletes LDAP users imported by previous User Search filter queries from the Horizon Database.

6. In the **Additional Group DN** box, enter the distinguished name (DN) of the user to optimize efficiency of the search defined in the **User Search Filter** box.
7. In the **Username Attribute** box, enter the attribute for the user account login on the LDAP directory server.

Example: uid or sAMAccountName

8. In the **First Name Attribute** box, enter the attribute for the user first name on the LDAP directory server.


Example: givenName

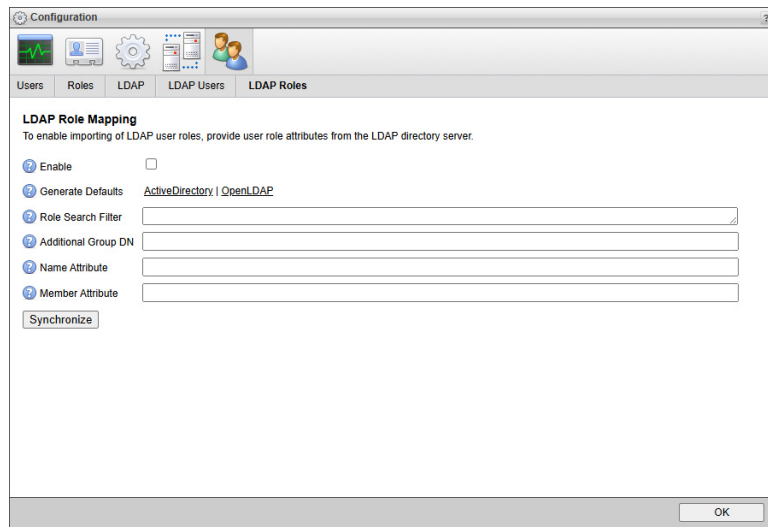
9. In the **Last Name Attribute** box, enter the attribute for the user surname on the LDAP directory server.
Example: sn
 10. In the **Title Attribute** box, enter the attribute for the user organizational title on the LDAP directory server.
Example: title
 11. In the **Department Attribute** box, enter the attribute for the user department on the LDAP directory server.
Example: department
 12. In the **E-Mail Attribute** box, enter the attribute for the user e-mail on the LDAP directory server.
Example: mail
 13. In the **Phone Attribute** box, enter the attribute for the user telephone number on the LDAP directory server.
Example: telephoneNumber
 14. In the **Mobile Attribute** box, enter the attribute for the user mobile phone number on the LDAP directory server.
Example: mobile
 15. Click **Synchronize** to synchronize your Inception Server with the LDAP directory server used by your system.
- For More Information on...**
- how to connect to an LDAP directory server, refer to the section “**Connect to an LDAP Directory Server**” on page 1–2
16. Click **Synchronize** to synchronize your Horizon Server with the LDAP directory server used by your system.

Map to LDAP Group (Role) Data

You can synchronize roles between an LDAP directory server and the Roles table of the Horizon Database.

To map to LDAP group (role) data

1. On the **Configuration** window toolbar, click the  **Users** icon.
The **Users** panel opens.
2. Click the **LDAP Roles** tab.
The **LDAP Roles** tab opens.



The screenshot shows the 'Configuration' window with the 'LDAP Roles' tab selected. The 'LDAP Role Mapping' section is active, displaying the following settings:

- Enable:**
- Generate Defaults:** [ActiveDirectory](#) | [OpenLDAP](#)
- Role Search Filter:**
- Additional Group DN:**
- Name Attribute:**
- Member Attribute:**

A **Synchronize** button is located below the input fields. An **OK** button is visible at the bottom right of the window.

3. To populate the **LDAP Roles Configuration** tab with editable default values, click one of the following **Generate Defaults** links:

- **Active Directory** — your organization uses Active Directory.
- **OpenLDAP** — your organization uses an OpenLDAP directory server.

4. In the **Role Search Filter** box, enter a valid LDAP query to filter group (role) data to limit the list of roles available in Horizon.

During LDAP role synchronization, Horizon only imports LDAP roles that meet the criteria of the LDAP Role Search filter into the Horizon Database. During LDAP role synchronization, Horizon deactivates LDAP roles imported by previous Role Search filter queries.

5. In the **Additional Group DN** box, enter the distinguished name (DN) of the group (role) to optimize efficiency of the search defined in the **Role Search Filter** box.

6. In the **Name Attribute** box, enter the attribute for the role name on the LDAP directory server.

Example: `cn`

7. In the **Member Attribute** box, enter the user attribute that indicates group (role) membership on the LDAP directory server.

Example: `memberOf`

8. Click **Synchronize** to synchronize your Horizon Server with the LDAP directory server used by your system.

9. After completing your configuration tasks, click **OK** in the lower toolbar to close the **Configuration** panel.

For More Information on...

- how to connect to an LDAP directory server, refer to the section “**Connect to an LDAP Directory Server**” on page 1–2
- how to import LDAP user account data, refer to the section “**Map to LDAP User Data**” on page 1–3

Changing Your Password

Regularly changing your Horizon account password helps ensure that someone cannot acquire your password use it to gain access to your Horizon account and content.

★ You can only change the password for local Horizon user accounts. If you use an LDAP user account to log into Horizon, you cannot use the Change Password dialog box to change the password for your LDAP user account.

This chapter discusses the following topic:

- Change Your Horizon Password

Change Your Horizon Password

Your new password should be difficult to guess or crack. A good password is:

- At least eight characters long.
- Does not contain your username, real name, or company name.
- Does not contain a complete word.
- Significantly different from previous passwords.
- Contains uppercase letters, lowercase letters, numbers, and symbols.

To change your Horizon password

1. While working in Horizon, click or tap the  **Change Password** icon on the main toolbar.

If the **Change Password** icon is not visible, you do not have permission to change your password within Horizon. If you need to change your password, contact your administrator.

The **Change Password** dialog box opens.

2. In the **Old Password** box, enter your current password.
3. In the **New Password** box, enter a new password.
4. In the **Verify Password** box, re-enter the new password.
5. Click or tap **Change Password**.

A message informs you of the successful change of your password.

6. Click or tap **OK**.

The next time you log in to Horizon, use your new password.

Connecting Through Horizon

Horizon uses a hub and spoke pattern to build an interconnected network that enables users to explore, search, and reuse content from other Inception Servers without leaving their Inception Server. The Horizon Server is the network hub and each Inception Server in the network is an endpoint. After building gateway connections between the Horizon Server and the Inception Server endpoints in your system, you can define a virtual network to enable communication between Inception Server endpoints in the network.

This chapter discusses the following topic:

- Define an Endpoint for an Inception Server
- Define a Gateway Connection
- Define Your Virtual Network
- Map Local and Remote Inception User Roles
- Remote Inception Server Access


Define an Endpoint for an Inception Server

Defining an endpoint for each of Inception Server that you want to connect is the first step in building your Horizon network. An endpoint identifies an Inception Server within the Horizon network.


To define an endpoint for an Inception Server

1. Use your Inception administrator credentials to log in to an Inception Server that you want to include in your Horizon network. The default administrator login credentials for the Inception web page are as follows:

- **Username** — root
- **Password** — <your_password>

2. In the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

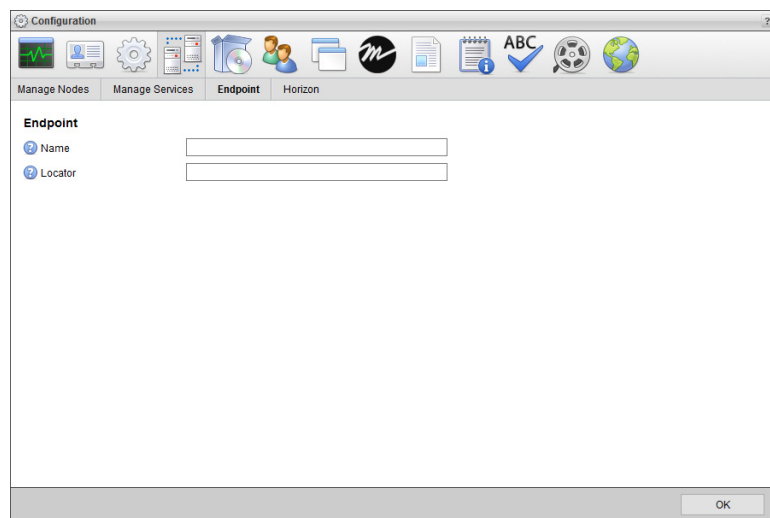
The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **Network** icon.

The **Network** panel opens.

4. Click the **Endpoint** tab.

The **Endpoint** tab opens.



5. In the **Name** box, enter a name to describe the endpoint in the Horizon network.
Inception uses the entered name to identify the endpoint on remote Inception Servers.
6. In the **Locator** box, enter a unique identifier for the endpoint.
Horizon uses the entered **Locator** to connect the endpoint to the Horizon Server. After you save the Locator for an endpoint you should not change the Locator.
7. Click **OK** to apply your changes and close the Configuration window.



Define a Gateway Connection

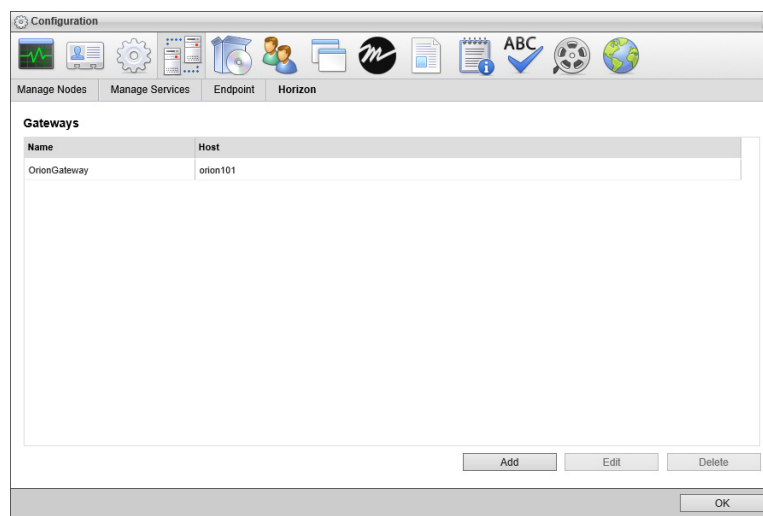
After defining an endpoint defined for your Inception Server, you can define a gateway to connect your Inception Server to the Horizon Server in your network. When defining a gateway, you must define gateway settings on the Inception Server and the Horizon Server at the same time.

Inception Server Gateway

You can start defining a gateway on the Inception Server. Before you can complete the gateway definition, you must obtain an authentication token by defining an endpoint for the Inception Server on the Horizon Server. Horizon uses tokens to authenticate communication between an endpoint and the Horizon Server.

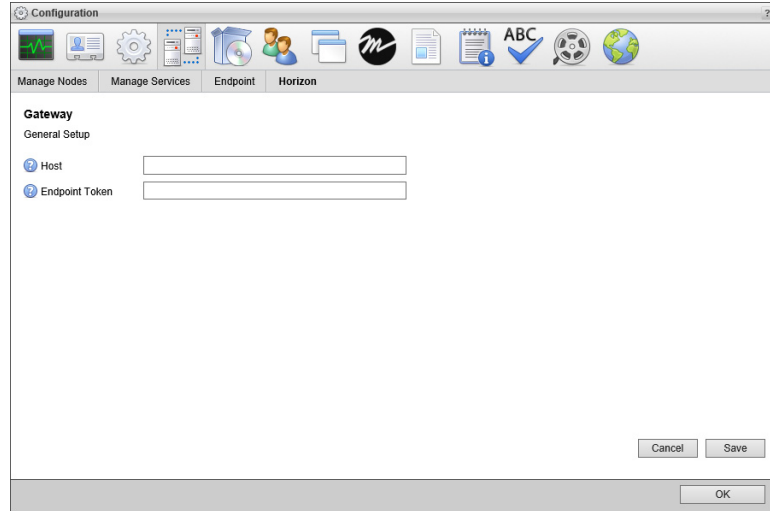
To define a gateway for an Inception Server


1. On your **Inception Server**, click the  **Configuration** icon in the main toolbar,
The **Configuration** window opens.
2. In the **Configuration** window toolbar, click the  **Network** icon.
The **Network** panel opens.
3. Click the **Horizon** tab.
The **Horizon** tab opens.




4. Click **Add**.

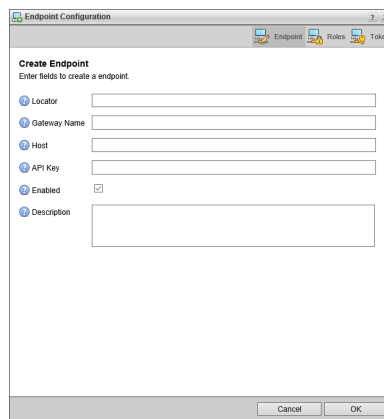
The **Gateway** settings open.



5. In the **Host** box, enter the hostname or IP address of the **Horizon Server** in your network.
6. Obtain a **Token** from the **Horizon Server** in your network by completing the following procedure:
 - a. Log in to **Horizon Server** as an **administrator**.
Horizon opens.
 - b. In the main toolbar, click or tap the  **Endpoint Manger** icon.
The **Endpoint Manager** panel opens, showing a list of the available endpoints on the Horizon Server.

Locator	Host	Virtual Networks	Enable...	Status	Description	Modified	Created	Modified By	Created By
INC_SRV_CENTRAL	srv-tor-ino01	Region 1, Region 2, Region 3	<input checked="" type="checkbox"/>	Online	Central News Room	2016-07-15 at 10:26:09 AM	2016-07-15 at 10:24:07 AM	Administrator	Administrator
INC_SRV_EAST	srv-hal-ino01	Region 1	<input checked="" type="checkbox"/>	Online	Eastern News Room	2016-07-14 at 3:24:19 PM	2016-07-14 at 3:14:17 PM	Administrator	Administrator
INC_SRV_NORTH	srv-yel-ino01	Region 1, Region 2	<input checked="" type="checkbox"/>	Online	Western News Room	2016-07-11 at 4:58:45 PM	2016-07-11 at 1:21:24 PM	Administrator	Administrator
INC_SRV_WEST	srv-van-ino01	Region 3	<input checked="" type="checkbox"/>	Offline	Northern News Room	2016-07-11 at 4:58:45 PM	2016-05-30 at 12:05:36 PM	Administrator	Administrator

- c. From the **Endpoint Manager** toolbar, click or tap the  **Create Endpoint** icon.
The **Endpoint Configuration** dialog box opens.
 - d. Click or tap the **Endpoint** tab.
The **Endpoint** tab opens.

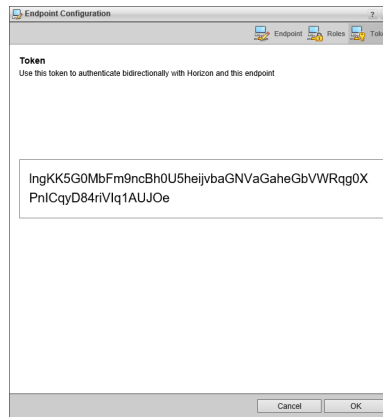


- e. In the **Locator** box, enter the same identifier that you entered in step <UI_Element>6 of the procedure “**To define an endpoint for an Inception Server**” on page 1–2.

The **Locator** set on the Horizon Server must match the **Locator** set on the Inception server.

- f. In the **Host** box, enter the hostname or IP address of the **Inception Server** associated with the endpoint.
- g. Select the **Enabled** check box to enable the endpoint.
- h. In the **Description** box, enter a description of the endpoint.
- i. Click tap the **Token** tab.

The **Token** tab opens.



- j. Copy the **Token**.
- k. Click **OK**.

Horizon displays the new endpoint in the **Endpoint Manager**. The **Status** column of the new endpoint updates when you save the gateway on the Inception Server endpoint.

7. Paste the copied **Token** in the **Endpoint Token** box.
8. Click **Save**.


The **Gateways** list displays the new gateway connection.

Edit Gateway Settings

When required, you can use the Horizon tab to edit the settings defined for a gateway.

- ★ Editing gateway settings may remove an Inception Server from the Horizon network.

To edit gateway settings


1. In the **Configuration** window toolbar, click the  **Network** icon.
The **Network** panel opens.
2. Click the **Horizon** tab.
The **Horizon** tab opens.
3. In the **Gateways** list, select the gateway to edit.
4. Click **Edit**.
The **Gateway** settings open.
5. Edit gateway settings as required.
6. After completing the required gateway setting edits, click **Save**.

Delete a Gateway

When you no longer require a gateway, you can use the Horizon tab to delete the gateway.

★ Deleting a gateway removes the associated Inception Server from the Horizon network.

To delete a gateway


1. In the **Configuration** window toolbar, click the  **Network** icon.
The **Network** panel opens.
2. Click the **Horizon** tab.
The **Horizon** tab opens.
3. In the **Gateways** list, select the gateway to delete.
4. Click **Delete**.
A confirmation message opens, asking whether you want to delete the selected gateway. To keep the gateway, click **Cancel**.
5. In the confirmation message, click **OK**.
Horizon deletes the selected gateway from the **Gateways** list. When you delete a gateway, Horizon also removes the associated Inception Server from the Horizon network.

Horizon Server Endpoint

When you no longer require an endpoint in your Horizon network, you can use the Endpoint Manager panel to delete the endpoint.

★ Deleting an endpoint also removes the endpoint from any virtual networks and disconnects the associated Inception Server from the Horizon network.

To delete an endpoint

1. In the **Endpoint Manager** panel, select the endpoint to delete.
2. From the **Endpoint Manager** toolbar, click or tap the  **Delete** icon.
A confirmation message opens, asking whether you want to delete the selected endpoint. To keep the endpoint, click or tap **Cancel**.
3. In the confirmation message, click or tap **OK**.
Horizon deletes the selected endpoint from the **Endpoint Manager** panel and from any virtual networks that contained the endpoint.

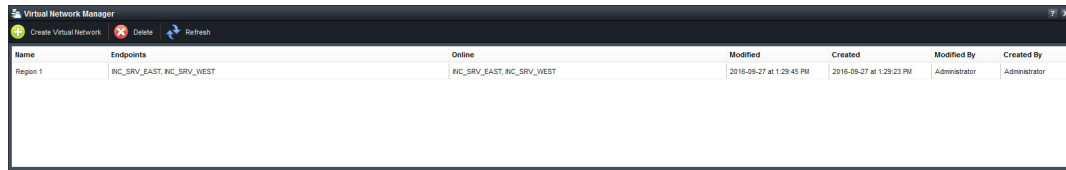
Define Your Virtual Network


After building gateway connections between the Horizon Server and the Inception Server endpoints in your system, you can define a virtual network to enable communication between the Inception Server endpoints in the network.

To define a virtual network

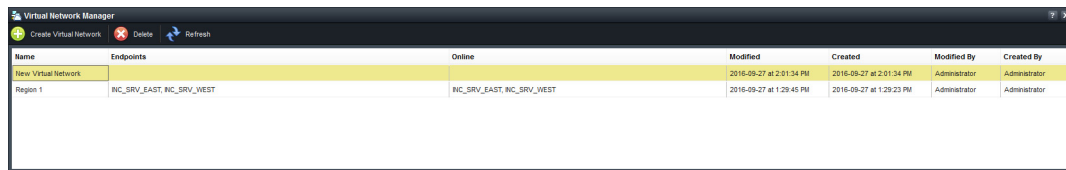
1. On the **Horizon Server**, click or tap the  **Virtual Network Manager** icon in main toolbar.

The **Virtual Network Manager** opens, showing a list of the virtual networks defined on the Horizon Server.



2. From the **Virtual Network Manager** toolbar, click or tap the  **Create Virtual Network** icon.

Horizon adds a virtual network to the **Virtual Network Manager**.

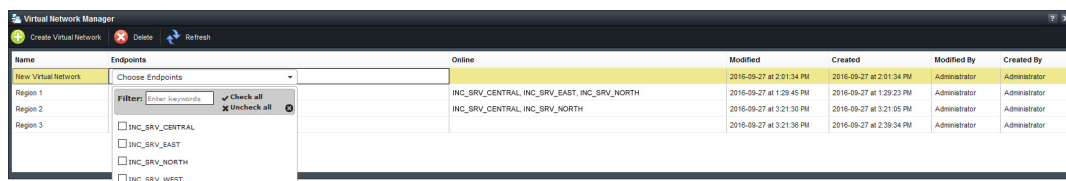


3. Use the following procedure to enter a name for the new virtual network:

- a. Click the **Name** cell associated with the new virtual network.
- b. Press the **Space Bar** to start entering a name in the **Name** cell.
- c. Enter a name for the new virtual network.
- d. Click any other cell in the **Virtual Network Manager** panel.

4. Click in the **Endpoints** cell associated with the new virtual network.

In the **Endpoints** cell of the new virtual network, Horizon displays a list of the available endpoint that you can add to the virtual network.




5. To filter the **Endpoint** list, enter in the **Filter** box a portion of the endpoint name you want to select.

You do not need to enter the start of an endpoint name, any portion of the name filters the **Endpoints** list. The **Endpoints** list automatically updates to display only the endpoints with names that contain the text entered in the **Filter** box. Clear the **Filter** box to display all of the available endpoints in the **Endpoints** list.

6. In the **Endpoints** list of the selected virtual network, select the check box to the left of each endpoint group that you want to add the virtual network.

You can add an endpoint to one or more virtual networks.

7. After selecting one or more endpoints for the contact, click or tap the  **Close** icon.


The **Endpoints** list closes, and the **Endpoints** cell associated with the virtual network displays the endpoints that make up the virtual network.

Delete a Virtual Network

When you no longer require a virtual network in your Horizon network, you can use the Virtual Network Manager panel to delete the virtual network.

★ Deleting a virtual network also disconnects the associated Inception Servers from the Horizon network.

To delete a virtual network

1. In the **Virtual Network Manager** panel, select the virtual network to delete.
2. From the **Virtual Network Manager** toolbar, click or tap the  **Delete** icon.

A confirmation message opens, asking whether you want to delete the selected virtual network. To keep the virtual network, click or tap **Cancel**.

3. In the confirmation message, click or tap **OK**.

Horizon deletes the selected virtual network from the **Virtual Network Manager** panel and disconnects the associated Inception Servers from the Horizon network.

Map Local and Remote Inception User Roles

Though unified roles Horizon can control the permissions of an Inception user working on a remote Inception Server. On each Inception Server in your Horizon network you must create user roles for Horizon to control permissions. On the Horizon Server you must define a connection between Inception user roles and Horizon unified user roles (**Figure 1.1**).



Figure 1.1 Inception Role and Horizon Unified Role Connections


Inception User Roles

On each Inception Server in your Horizon network you must create user roles that you can assign to Horizon unified roles to control user permissions on remote Inception Servers.


To create an Inception user role to assign to a Horizon unified role

1. Use your Inception administrator credentials to log in to an Inception Server that you want to include in your Horizon network. The default administrator login credentials for the Inception web page are as follows:

- **Username** — root
- **Password** — <your_password>

2. In the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

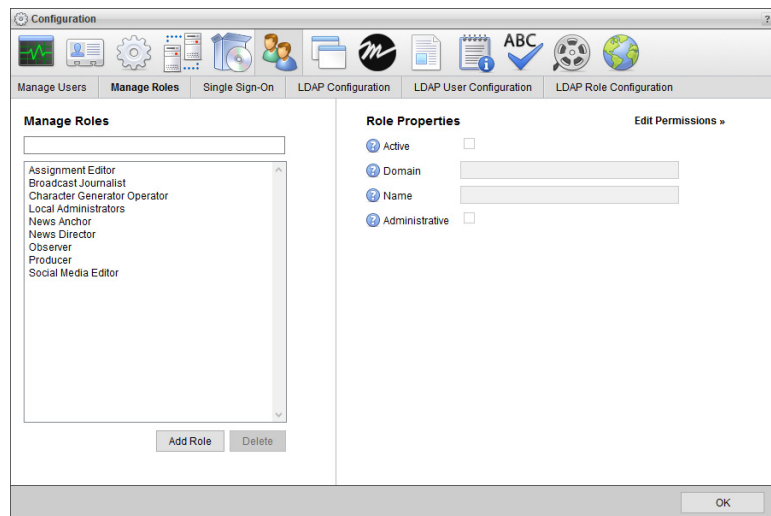
The **Configuration** window opens.

3. In the **Configuration** window toolbar, click the  **Users** icon.

The **Users** panel opens.

4. Click the **Manage Roles** tab.

The **Manage Roles** tab opens.



5. In the **Manage Roles** section, click **Add Role**.

6. In the **Role Properties** section, select the **Active** check box to make the role operational.

Clear this check box to deactivate a user role. Inactive roles cannot convey permissions to user accounts.

7. In the **Name** box, enter a name for the user role.

8. Select the **Remotely Assignable** check box to enable Horizon to use the user role to assign remote user permissions on the Inception Server.

9. Click **Edit Permissions**.

The **Role Permissions** list opens.

10. In the **Role Permissions** list, select the permissions to assign to the user role.

Keep in mind the following point as you assign permission to a user role:

- Permission assignment changes save automatically.
- Background shading delineates category headings from role permissions. To select or deselect all permissions in a category, select or clear the check box in the category heading.
- Permissions displayed in **Bold Text** are assignable to all accounts or to selected accounts:
 - › If you want to assign the permission for all accounts, select the bolded permission. This setting also applies to any accounts created in the future.
 - › If you want to assign the permission for selected accounts, clear the bolded permission and then select individual accounts from the list below the bolded permission name.
 - › If you do not want to assign the permission for any accounts, clear all accounts in the list.
- To select all permissions in the entire list, click **Select All**.

Use this option to assign all permissions to the role, or to assign most of the permissions by selecting all of them and then clearing the ones you do not want to assign.

- To clear all permissions, click **Deselect All**.

Use this option to assign only a few permissions to the role, by clearing all of them and then selecting only the ones you want to assign.

11. Assign the configured user role to an Inception user that will access remote Inception Servers through Horizon.

Horizon Unified Roles


A Horizon unified role maps the user role of an Inception user connecting to a remote Inception Server with a user role on the remote Inception server. The permissions of the connecting Inception user are controlled by the mapped role on the remote Inception server.

To create Horizon unified roles


1. Use your Horizon administrator credentials to log in to the Horizon web page.

The default administrator login credentials are as follows:

- **Username** — root
- **Password** — <your_password>

2. On the main toolbar, click the  **Configuration** icon. If the **Configuration** icon is not visible, you are not an administrator and cannot configure the server.

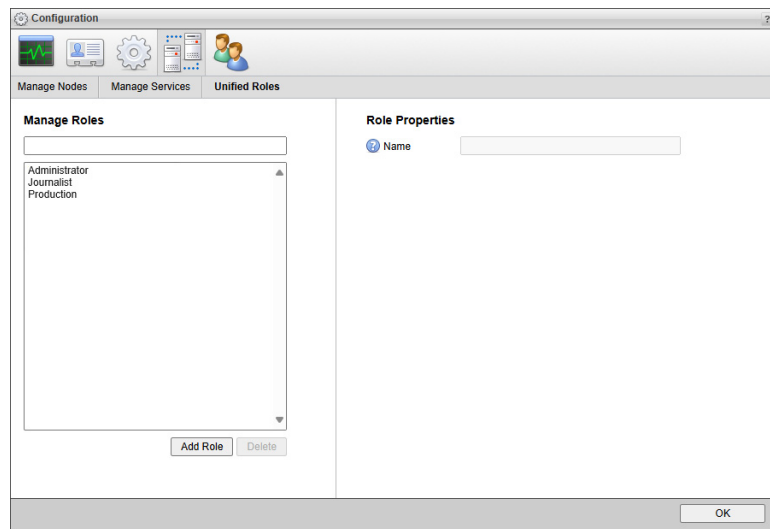
The **Configuration** window opens.

3. On the **Configuration** window toolbar, click the  **Network** icon.

The **Network** panel opens.

4. Click the **Unified Roles** tab.

The **Unified Roles** tab opens.



5. In the **Manage Roles** section, click **Add Role**.

Horizon automatically saves property values set for a new user role.

6. In the **Role Properties** section, enter a name for the user role in the **Name** box.
7. For each unified role that you require on the Horizon Server, repeat step <UI_Element>5 and step <UI_Element>6.
8. When you finish creating unified roles, click **OK**.

Incoming Connections

After you create the required Inception user roles and Horizon unified roles, you can define the role mappings for incoming connections from an Inception Server endpoint to the Horizon Server (**Figure 1.2**).

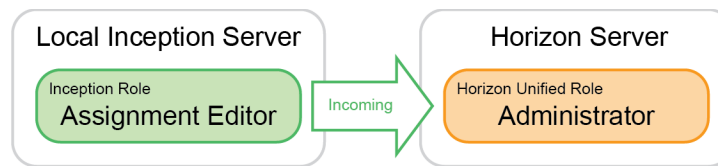


Figure 1.2 Incoming Inception Role to Horizon Unified Role Connection

To map incoming Inception roles to Horizon unified roles

1. In the main toolbar, click or tap the **Endpoint Manager** icon.

The **Endpoint Manager** panel opens, showing a list of the available endpoints on the Horizon Server.

Locator	Host	Virtual Networks	Enable...	Status	Description	Modified	Created	Modified By	Created By
INC_SRV_CENTRAL	srv-4or-inc01	Region 1, Region 2, Region 3	✓	Online	Central News Room	2016-07-15 at 10:26:09 AM	2016-07-15 at 10:24:07 AM	Administrator	Administrator
INC_SRV_EAST	srv-4al-inc01	Region 1	✓	Online	Eastern News Room	2016-07-14 at 3:24:19 PM	2016-07-14 at 3:14:17 PM	Administrator	Administrator
INC_SRV_NORTH	srv-yel-inc01	Region 1, Region 2	✓	Online	Western News Room	2016-07-11 at 4:58:45 PM	2016-07-11 at 1:21:24 PM	Administrator	Administrator
INC_SRV_WEST	srv-wan-inc01	Region 3	✓	Offline	Northern News Room	2016-07-11 at 4:58:45 PM	2016-05-30 at 12:05:36 PM	Administrator	Administrator

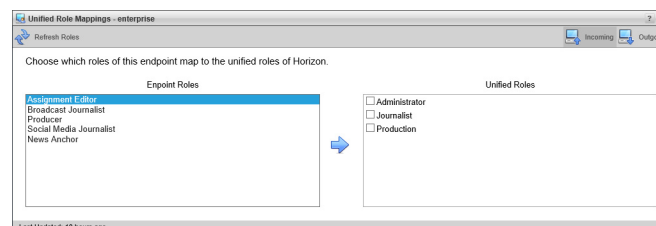
2. In the **Endpoint Manager** panel, select the endpoint defined for the Inception Server from which to map Inception roles to Horizon unified roles.

3. From the **Endpoint Manager** toolbar, click or tap the **Mapping** icon.

The **Unified Role Mappings** panel opens.

4. In the **Unified Role Mappings** panel toolbar, click the **Incoming** icon.

The **Incoming** tab of the **Unified Role Mappings** panel opens.



5. In the **Endpoints Roles** section, select the **Inception role** to map to one or more **Horizon unified roles**.

The **Endpoints Role** section only lists the Inception roles that are designated as **Remotely Assignable** on the Inception Server.

6. In the **Unified Roles** section, select the check box to the left of each **Horizon unified role** to map to the selected **Inception role**.

For example, map the **Assignment Editor** Inception role to the **Administrator** Horizon unified role. Inception users assigned the **Assignment Editor** role on the selected endpoint will use the **Administrator** Horizon unified role when they connect to a remote Inception Server through Horizon. The Inception user permissions on the remote Inception Server depends on the outgoing mapping of the **Administrator** Horizon unified role to the Inception role or roles on the remote Inception Server.

Outgoing Connections

After you define incoming Inception role to Horizon unified role mappings, you can define the outgoing mappings from Horizon unified roles on the Horizon Server to the Inception roles on the remote Inception Server. Outgoing mappings define the connecting Inception user permissions on the remote Inception Server (**Figure 1.3**).

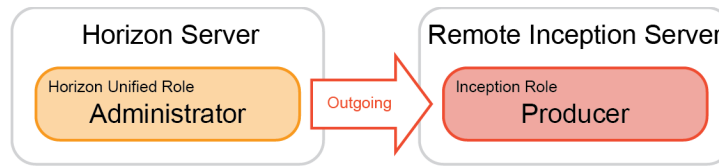


Figure 1.3 Outgoing Horizon Unified Role to Inception Role Connection

To map outgoing Horizon unified roles to Inception roles

1. In the main toolbar, click or tap the **Endpoint Manger** icon.

The **Endpoint Manager** panel opens, showing a list of the available endpoints on the Horizon Server.

Locator	Host	Virtual Networks	Enable...	Status	Description	Modified	Created	Modified By	Created By
INC_SRV_CENTRAL	srv-tor-enc01	Region 1, Region 2, Region 3	✓	Online	Central News Room	2016-07-15 at 10:26:09 AM	2016-07-15 at 10:24:07 AM	Administrator	Administrator
INC_SRV_EAST	srv-hall-enc01	Region 1	✓	Online	Eastern News Room	2016-07-14 at 3:24:19 PM	2016-07-14 at 3:14:17 PM	Administrator	Administrator
INC_SRV_NORTH	srv-yet-enc01	Region 1, Region 2	✓	Online	Western News Room	2016-07-11 at 4:58:45 PM	2016-07-11 at 1:21:24 PM	Administrator	Administrator
INC_SRV_WEST	srv-van-enc01	Region 3	✓	Offline	Northern News Room	2016-07-11 at 4:58:45 PM	2016-05-30 at 12:05:36 PM	Administrator	Administrator

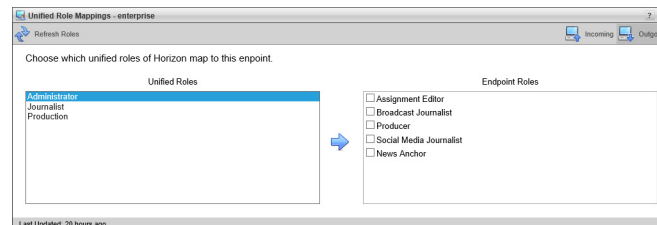
2. In the **Endpoint Manager** panel, select the endpoint defined for the Inception Server to which to map Horizon unified roles to Inception roles.

3. From the **Endpoint Manager** toolbar, click or tap the **Mapping** icon.

The **Unified Role Mappings** panel opens.

4. In the **Unified Role Mappings** panel toolbar, click the **Outgoing** icon.

The **Outgoing** tab of the **Unified Role Mappings** panel opens.



5. In the **Unified Roles** section, select the **Horizon unified role** to map to one or more **Inception roles**.

The **Endpoints Role** section only lists the Inception roles that are designated as **Remotely Assignable** on the Inception Server.

6. In the **Endpoint Roles** section, select the check box to the left of each **Inception role** to map to the selected **Horizon unified role**. The **Endpoints Role** section only lists the Inception roles that are designated as **Remotely Assignable** on the Inception Server.

For example, map the **Administrator** Horizon unified role to the **Producer** Inception role. Inception users assigned the **Administrator** Horizon unified role will use the **Producer** Inception role when they connect to a remote Inception Server through Horizon.

Remote Inception Server Access

When the Inception Server you are connected to is part of one or more Horizon virtual networks, you can use the Folders tree view in the following panels to access content on remote Inception Servers in the same virtual network:

- Running Order Manager
- Playlist Manager
- Story Browser
- Assignment Manager
- Contact Manager

The Folders tree view displays each remote Inception Server as a node.

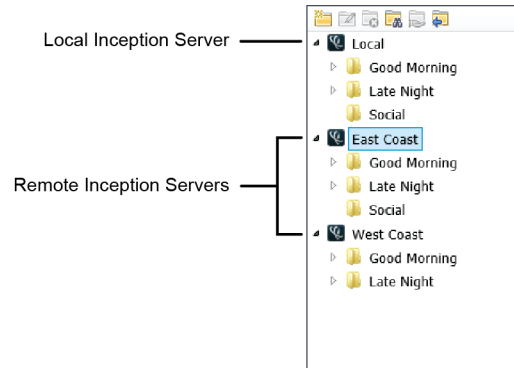


Figure 1.4 Remote Inception Servers in the Tree View

When working with remote folders, you can do the following:

- View remote content.
- Copy content from remote folders by dragging or cut and paste.
- Drag remote stories into a local rundown. When you drag remote stories into a local running order, Inception creates local copies of the stories and all associated child stories.

For More Information on...

- using Inception, refer to the *Inception User Guide*.

