



Orchid Fusion VMS Administrator Guide

2.14 — Last update: Oct 01, 2020

IPConfigure

Table of Contents

- Introduction 3**
 - About the Orchid Product Family..... 4
 - About the Orchid Fusion VMS Administrator Guide 5
- How to Sign In 6**
 - A Quick Word on Web Browsers and Operating Modes..... 7
 - Signing In..... 8
- Getting Started 13**
 - Accessing the System Menu 14
 - Accessing the Configuration Menu 15
- Adding and Managing Orchid Core VMS Servers 16**
 - Add an Orchid Core VMS Server..... 19
 - Refresh Cameras 21
 - Edit Orchid Core VMS Server Settings 22
 - Delete an Orchid Core VMS Server..... 24
 - Open an Orchid Core VMS Server 25
 - Search / Sort Servers..... 26
 - The Cameras Tab 28
 - Add Cameras..... 29
 - Edit Camera Stream Settings..... 33
 - Advanced Settings: Fisheye Dewarping 40
 - Advanced Settings: Motion Detection..... 43
 - Working with Camera Streams..... 46
 - Cameras with Multiple Lenses 50
 - Recovering a Camera 52
 - Removing Cameras 53
 - The Users Tab 55
 - Adding New Orchid Users..... 57
 - Editing Existing Orchid Users..... 58
 - Deleting Existing Orchid Users 60
 - The Retention Policy Tab 61
 - The System Status Tab..... 65
 - The System Report Tab 67
 - The Activation Tab 70
 - Adding a Fusion License to Orchid Core VMS (Quick Method)..... 72
 - Adding a Fusion License to Orchid Core VMS (Offline Method) 75
 - Modifying an Existing License (Quick Method)..... 80
 - Modifying an Existing License (Offline Method)..... 82
 - The Advanced Settings Tab 87

| | |
|---|------------|
| Working With Advanced Properties | 89 |
| Advanced Properties Search Feature | 93 |
| Creating and Managing Users | 95 |
| Access the Orchid Fusion VMS Users List | 96 |
| Add a New Orchid Fusion VMS User..... | 97 |
| Edit Existing Users..... | 99 |
| Delete Existing Users..... | 100 |
| Creating and Managing Camera Groups | 101 |
| Access the Orchid Fusion VMS Camera Group List..... | 102 |
| Add a Camera Group | 103 |
| Add a Camera Sub-Group..... | 104 |
| Edit Camera Group | 106 |
| Delete a Camera Group | 107 |
| Move a Camera Group..... | 108 |
| Find Ungrouped Cameras | 109 |
| Camera Group Settings..... | 110 |
| Creating and Managing Permission Groups | 111 |
| Orchid Fusion VMS Default Permission Groups | 112 |
| Custom Permission Groups..... | 113 |
| Tips for Creating Permission Groups..... | 116 |
| Accessing the Permission Groups..... | 117 |
| Add an Administrator Permission Group..... | 118 |
| Add a Permission Group with Individual Members..... | 120 |
| Add a Permission Group that Includes a Member Group | 127 |
| Add a Permission Group for Active Directory..... | 129 |
| Add a Permission Group for Azure Active Directory | 132 |
| Add a Permission Group for FreeIPA | 135 |
| Add an “All APPs” Permission Group | 138 |
| Add a Permission Group for Selected APPs | 140 |
| Edit Permission Group | 142 |
| Delete Permission Group | 143 |
| Notifications | 144 |
| Access the Notifications Screen | 145 |
| Add an SMTP Server | 146 |
| Add a Notification..... | 148 |
| Sample Notifications | 156 |
| Edit SMTP Server | 158 |
| Delete SMTP Server | 159 |
| Edit Notification..... | 160 |
| Delete Notification..... | 161 |

Orchid Fusion VMS APPs 162
 To Activate the APPs Feature in Orchid Fusion VMS 163
 Access the Orchid Fusion VMS APPs Feature 164

Other Administrator Features 166
 Sharing Stages 167
 Managing PTZ Presets..... 170

Advanced Topics 171
 Recovering an Orchid Core VMS Server 172
 How Orchid Fusion VMS's Proxy Works..... 173
 Trouble Viewing the Camera Stream in Orchid Fusion VMS 175
 Checking for Packet Loss..... 176
 About WebRTC 177
 Comparing Orchid Fusion VMS Operating Modes 178

Additional Support 180
 How to Submit a Support Request 181

Introduction

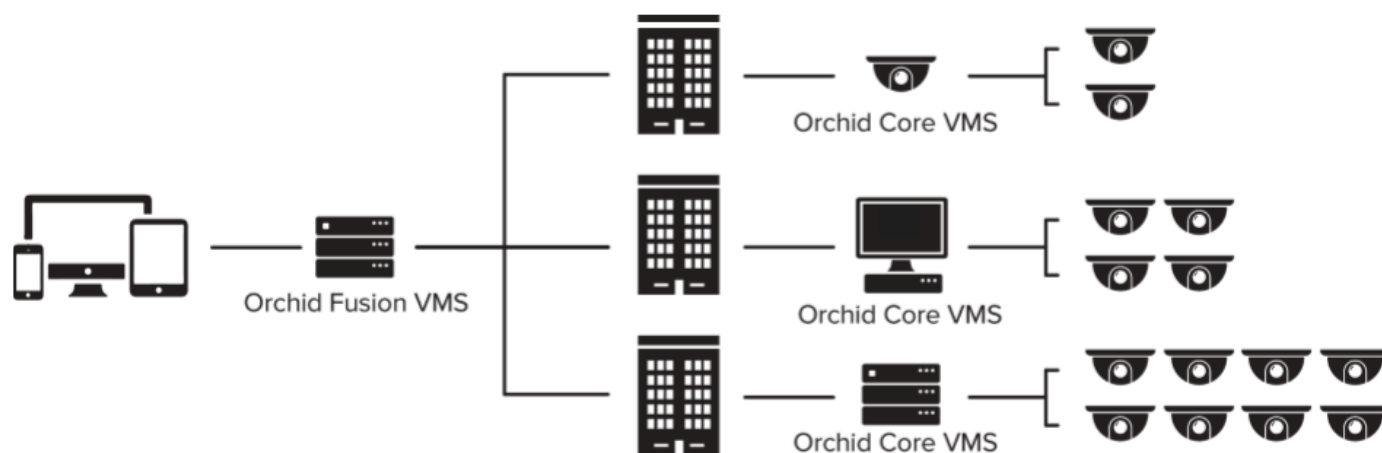
Thank you for your interest in IPConfigure's Orchid Fusion Video Management System. This guide should provide you with everything you need to know as you prepare the system for readiness. We'll begin with an overview of the product and the Administrator guide, and a few basics about navigating the software. Then we'll explain how to add Orchid Core VMS servers, users and *Camera Groups*. Once that is done, we'll cover *Permissions*, *Notifications*, and other advanced topics to help you manage and understand the system.

About the Orchid Product Family

Orchid Core VMS is the foundation of IPConfigure's Video Management System. Orchid Core VMS runs on a single server to collect, record, and store video from network cameras. Accessible via an intuitive web browser interface, Orchid Core VMS allows users to view live and recorded video from virtually any web-enabled device.

Orchid Fusion VMS is an enterprise software developed to integrate multiple Orchid Core VMS servers from various locations into one seamless management system. Designed to work across a variety of operating systems, camera types and network topologies, Orchid Fusion VMS is the perfect solution for large organizations.

Orchid Core VMS and Orchid Fusion VMS have very similar user interfaces, and both systems allow viewing and exporting video, but there is a key difference between the two. While Orchid Core VMS works on the camera level, beginning in version 2.2.0 Orchid Fusion VMS now works on the camera level and the server level. In Orchid Core VMS, the administrator will "register" network cameras, configure camera stream settings, and establish video retention levels for each camera. In version 2.2.0, Orchid Fusion VMS has the power to "register" both cameras and individual Orchid Core VMS servers, resulting in increased management capabilities to an entire network of Orchid Core VMS servers.



About the Orchid Fusion VMS Administrator Guide

The Orchid Fusion VMS Administrator Guide is designed for IPConfigure dealers, integrators, or system administrators and is intended to cover the topics that deal with system administration and features that are not part of everyday operation.

This guide includes information on the following topics:

- How to Sign into the Orchid Fusion VMS Software
- Getting Started
- Adding and Managing Orchid Core VMS Servers
- Creating and Managing Users
- Creating and Managing Camera Groups
- Managing Stages
- Creating and Managing Permission Groups
- Defining Notifications
- Orchid Fusion VMS APPs
- Advanced Settings
- Advanced Topics
- Additional Support

For details on everyday tasks regarding the *Stage*, *Timeline Bar*, and viewing/recording video, please refer to the [Orchid Fusion VMS User Guide](#).

How to Sign In

Orchid Fusion VMS can be accessed easily through most modern web browsers, such as the latest versions of Chrome or Firefox. The latest version of Chrome is recommended. Your browser choice will determine the available operating modes for Orchid Fusion VMS.



The following web browsers are explicitly *not* supported: Internet Explorer 11, Firefox 52 ESR, and any Google Chrome version older than version 48.

A Quick Word on Web Browsers and Operating Modes

Beginning with version 2.4.0, Orchid Fusion VMS supports Web Real-Time Communication (WebRTC). This technology allows for viewing full-bandwidth, live and recorded H264 video streams within a web browser (without the need to download a plugin). WebRTC mode and Low-bandwidth mode are available in the following browsers:

- (Preferred) Google Chrome, version 66 or higher, in a MacOS, Windows, or Linux desktop environment, or on a mobile device
- Latest version of Safari (mobile and desktop)
- Latest version of Mozilla Firefox
- Latest version of Microsoft Edge

All other web browsers support Low-bandwidth mode only. (For a detailed comparison of the two operating modes, please refer to the [Comparing Orchid Fusion VMS Operating Modes](#) section.)



Starting with Orchid Fusion VMS version 2.10.0, the FBGST plugin will no longer be supported. The plugin-compatible web browsers (Chrome version 34, and Firefox version 52) have also reached the end of support. If you were previously using either of these web browsers, you should upgrade to the latest version available.

Signing In

With the release of version 2.10, Orchid Fusion VMS has added more ways to sign in, and will allow mixed authentication modes. So, Administrators may enable multiple sign in modes on the same Fusion server.

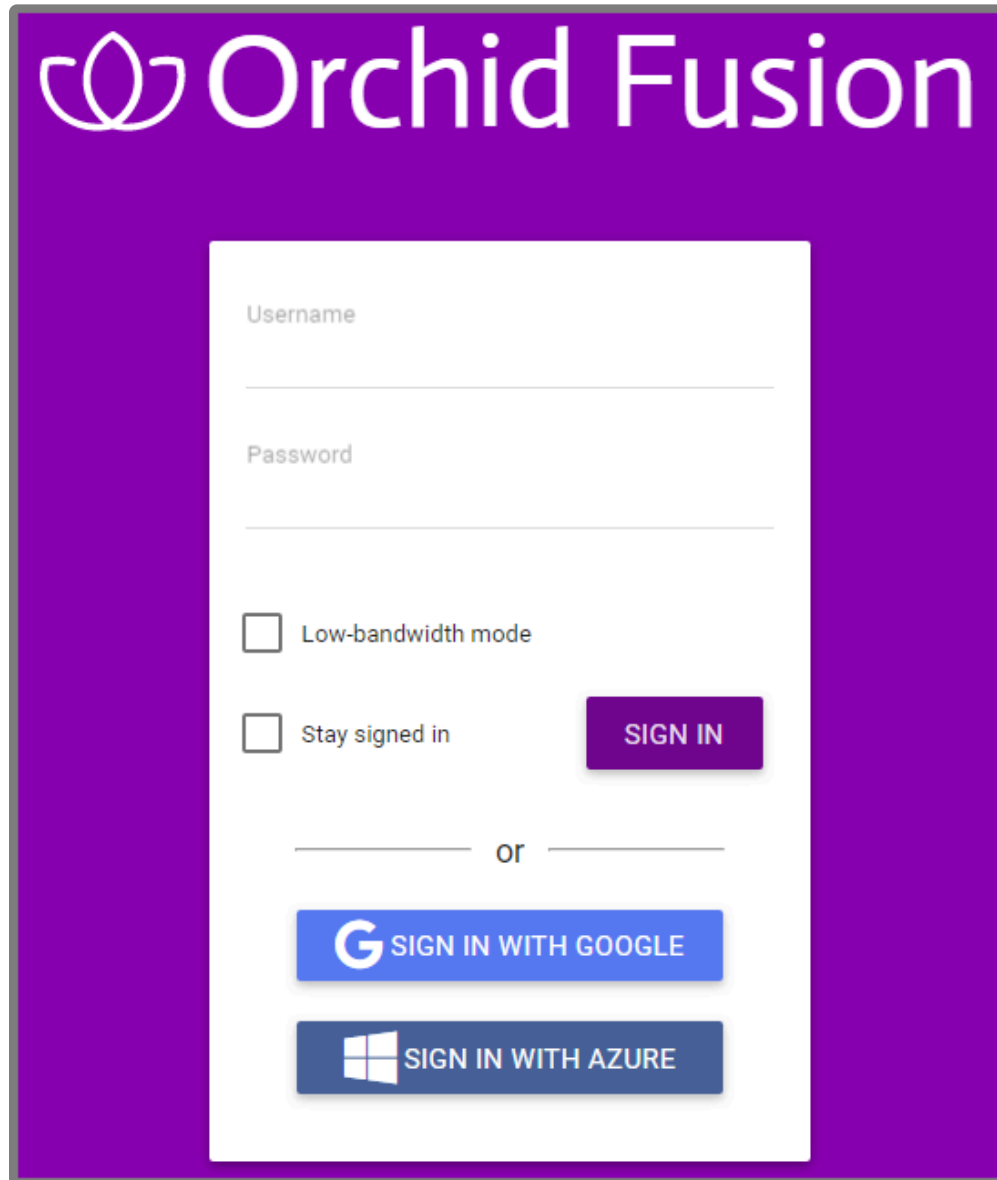
Orchid Fusion VMS supports each of the following external authentication providers:

- Google
- Active Directory
- Azure Active Directory
- FreeIPA

Accessing the Sign In Screen

1. To open Orchid Fusion VMS on a client device, type the IP address of the Orchid Fusion VMS server in the web browser address bar. If you are opening Orchid Fusion VMS on the Orchid Fusion VMS server itself, you may enter **localhost:8080** in the address bar (provided the default port was used). You may also be able to use the Orchid Fusion VMS link in the system menu or the Desktop icon, if available.
2. You will be prompted to sign into Orchid Fusion VMS.

 The username and password are both case sensitive.

The image shows the Orchid Fusion login interface. It has a purple background with the Orchid Fusion logo and name at the top. Below the logo is a white rectangular box containing the login form. The form has two input fields: 'Username' and 'Password'. Below these fields are two checkboxes: 'Low-bandwidth mode' and 'Stay signed in'. To the right of the 'Stay signed in' checkbox is a purple 'SIGN IN' button. Below the checkboxes is a horizontal line with the word 'or' in the center. Below the line are two buttons: a blue 'SIGN IN WITH GOOGLE' button and a dark blue 'SIGN IN WITH AZURE' button.

Standard Sign In

1. Enter your username and password in the fields provided. (This information should be provided to you by your Orchid Fusion VMS Administrator.) If you are the Administrator and this is your first time signing in, enter the username **admin** and the password you set when Orchid Fusion VMS was installed.

✿ For improved security, after this initial sign in, Administrators should not use the default *Admin* account. Instead, each Administrator should create an individual User account. If you sign in as the default Administrator, when you sign out, you will automatically sign out any other Administrator users that are signed in with the default Administrator credentials.

2. If the *Low-bandwidth mode* checkbox appears, you may choose to run in Low-bandwidth mode.

- a. Mark the box if you want to run in Low-bandwidth mode.
- b. Leave the box unmarked if you want to run in WebRTC mode.

If the checkbox does not appear, you will run in Low-bandwidth mode by default (because the browser you are using does not currently support WebRTC mode).

3. Mark the *Stay signed in* checkbox if you wish to remain signed in even if you close your browser session or reboot your computer. You will remain signed in for approximately 30 days. (If you leave this box unmarked, the system will automatically sign you out if you close your browser or reboot your computer.)
4. Press **Sign In**.


Sign In with Google

With this method, you will be able to sign into Orchid Fusion VMS using your existing Google credentials (eliminating the need for yet another password). This requires that your system administrator has enabled Google Authentication, and an Orchid Fusion VMS user is linked to your Google account. (For more details, please refer to the [Orchid Fusion VMS Installation Guide](#).)

1. If the *Low-bandwidth mode* checkbox appears, you may choose to run in Low-bandwidth mode.
 - a. Mark the box if you want to run in Low-bandwidth mode.
 - b. Leave the box unmarked if you want to run in WebRTC mode.

If the checkbox does not appear, you will run in Low-bandwidth mode by default (because the browser you are using does not currently support WebRTC mode).

2. Mark the *Stay signed in* checkbox if you wish to remain signed in even if you close your browser session or reboot your computer. You will remain signed in for approximately 30 days. (If you leave this box unmarked, the system will automatically sign you out if you close your browser or reboot your computer.)
3. Press the **Sign In With Google** button.
4. A Google sign in screen will appear. Select the Google account that you associate with Orchid Fusion VMS. If you are already signed into the selected Google account, Orchid Fusion VMS will open.
5. If you are not already signed into Google, enter your password and press the **Next** button. Orchid Fusion VMS will open.

 Google Sign In is not available using Microsoft Edge.

Sign In with Active Directory

With this method, you will be able to sign into Orchid Fusion VMS using your existing Active Directory

credentials. This requires some configuration which should be performed by the Orchid Fusion VMS Administrator. (For more details, please refer to the [Orchid Fusion VMS Installation Guide](#).)

1. Enter your username using the email style notation <userid>@<domain> (like john.smith@ipconfigure.com).
2. Enter your password.
3. If the *Low-bandwidth mode* checkbox appears, you may choose to run in Low-bandwidth mode.
 - a. Mark the box if you want to run in Low-bandwidth mode.
 - b. Leave the box unmarked if you want to run in WebRTC mode.

If the checkbox does not appear, you will run in Low-bandwidth mode by default (because the browser you are using does not currently support WebRTC mode).

4. Mark the *Stay signed in* checkbox if you wish to remain signed in even if you close your browser session or reboot your computer. You will remain signed in for approximately 30 days. (If you leave this box unmarked, the system will automatically sign you out if you close your browser or reboot your computer.)
5. Press the **Sign In** button. Orchid Fusion VMS will open.

Sign In with Azure Active Directory

With this method, you will be able to sign into Orchid Fusion VMS using your existing Azure Active Directory credentials. This requires some configuration which should be performed by the Orchid Fusion VMS Administrator. (For more details, please refer to the [Orchid Fusion VMS Installation Guide](#).)

1. If the *Low-bandwidth mode* checkbox appears, you may choose to run in Low-bandwidth mode.
 - a. Mark the box if you want to run in Low-bandwidth mode.
 - b. Leave the box unmarked if you want to run in WebRTC mode.

If the checkbox does not appear, you will run in Low-bandwidth mode by default (because the browser you are using does not currently support WebRTC mode).

2. Mark the *Stay signed in* checkbox if you wish to remain signed in even if you close your browser session or reboot your computer. You will remain signed in for approximately 30 days. (If you leave this box unmarked, the system will automatically sign you out if you close your browser or reboot your computer.)
3. Press the **Sign In With Azure** button.
4. A Microsoft sign in screen will appear. Click on the Azure account that you associate with Orchid Fusion VMS. Orchid Fusion VMS will open.

Sign In with FreeIPA

With this method, you will be able to sign into Orchid Fusion VMS using your existing FreeIPA credentials. This requires some configuration which should be performed by the Orchid Fusion VMS Administrator. (For more details, please refer to the [Orchid Fusion VMS Installation Guide](#).)

1. Enter your username using the email style notation <userid>@<domain> (like john.smith@ipconfigure.com).
2. Enter your password.
3. If the *Low-bandwidth mode* checkbox appears, you may choose to run in Low-bandwidth mode.
 - a. Mark the box if you want to run in Low-bandwidth mode.
 - b. Leave the box unmarked if you want to run in WebRTC mode.

If the checkbox does not appear, you will run in Low-bandwidth mode by default (because the browser you are using does not currently support WebRTC mode).

4. Mark the *Stay signed in* checkbox if you wish to remain signed in even if you close your browser session or reboot your computer. You will remain signed in for approximately 30 days. (If you leave this box unmarked, the system will automatically sign you out if you close your browser or reboot your computer.)
5. Press **Sign In**. Orchid Fusion VMS will open.

Getting Started

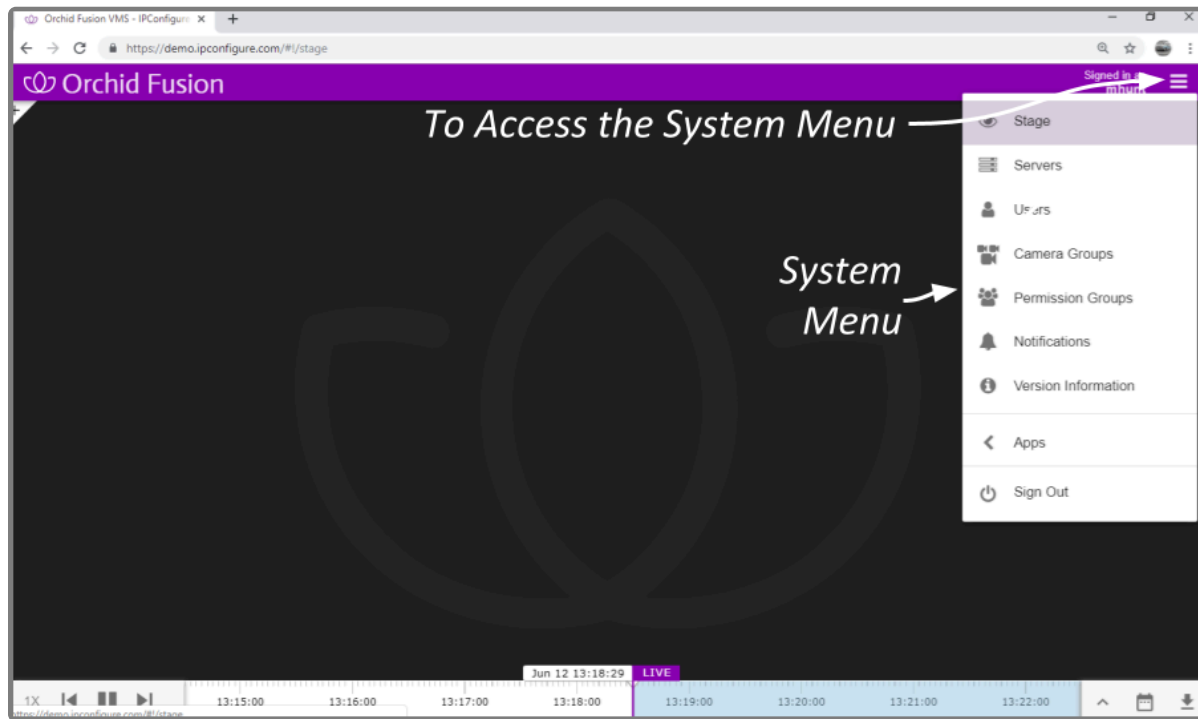
After you sign in, Orchid Fusion VMS will open at the *Stage* screen where you may begin to configure and use the Orchid Fusion VMS system. Orchid Fusion VMS does not require activation because all of the licensing is dealt with at the Orchid Core VMS level. The license level of each Orchid Core VMS server determines whether that server operates as a standalone VMS server, or if it can be linked to an Orchid Fusion VMS system. So keep in mind that each Orchid Core VMS server you wish to add to the system will require an active Fusion or Trial license. (Trial-licensed systems installed on Linux ARM embedded servers cannot be linked to Orchid Fusion VMS.) Contact your IPConfigure sales representative to purchase a license upgrade or renewal, if needed.

Accessing the System Menu



This is the **Hamburger** icon.

1. To open the *System Menu*, click the **Hamburger** icon in the top-right corner.



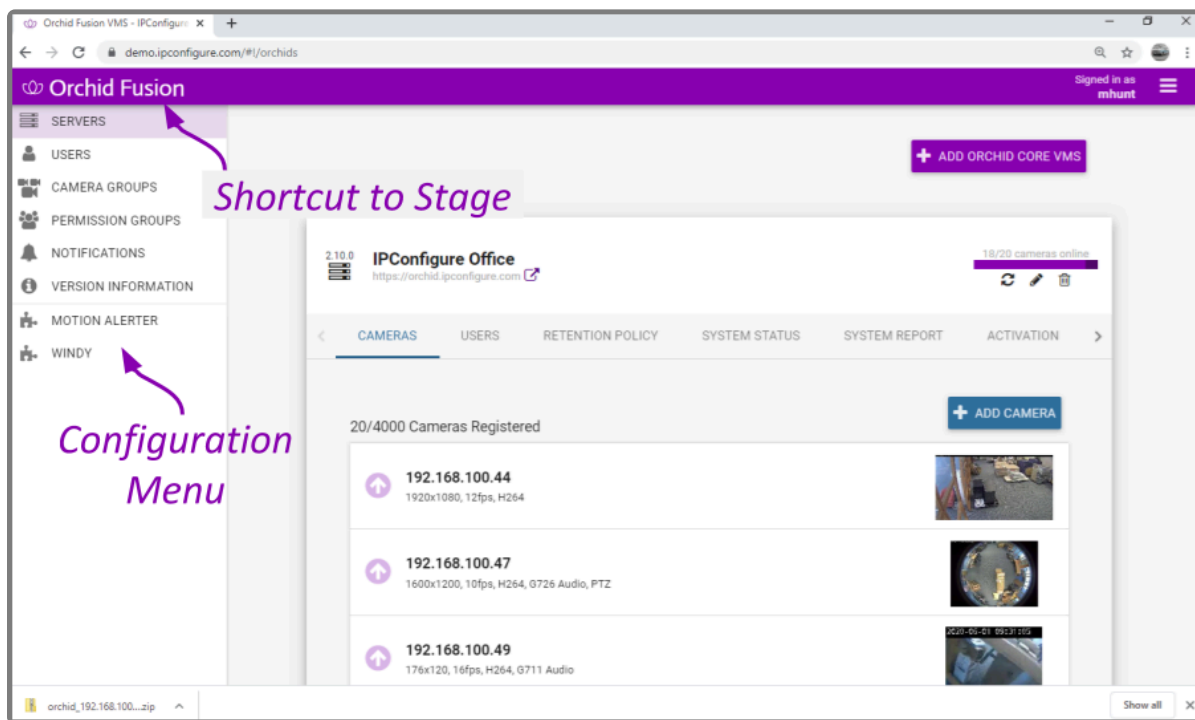
The *System Menu* is the primary navigation menu and will always be available. It allows the Administrator to access all of the software features like the *Stage*, *Servers* (Orchid Core VMS server list), *Users*, *Camera Groups*, *Permission Groups*, *Notifications*, *Version Information*, and *Sign Out*. The *System Menu* contains only those items for which the signed in user has permissions. (Access to the *Stage* and *Sign Out* is available to all users, but only via the *System Menu*.)

Accessing the Configuration Menu

1. To open the *Configuration Menu*, go to the *System Menu*, then click on any of the available selections except *Stage* or *Sign Out*.

The *Configuration Menu* is a secondary navigation menu that will not be available when the *Stage* is open. It allows the Administrator to access all of the software features except the *Stage* and *Sign Out*. For users without Administrator permissions, the *Configuration Menu* will only contain access to *Version Information*.

When you are using Orchid Fusion VMS on a PC (and the web browser is set to zero or minimal zoom), once you access the *Configuration Menu*, it will remain visible on the left side of the screen until you return to the *Stage* or sign out.



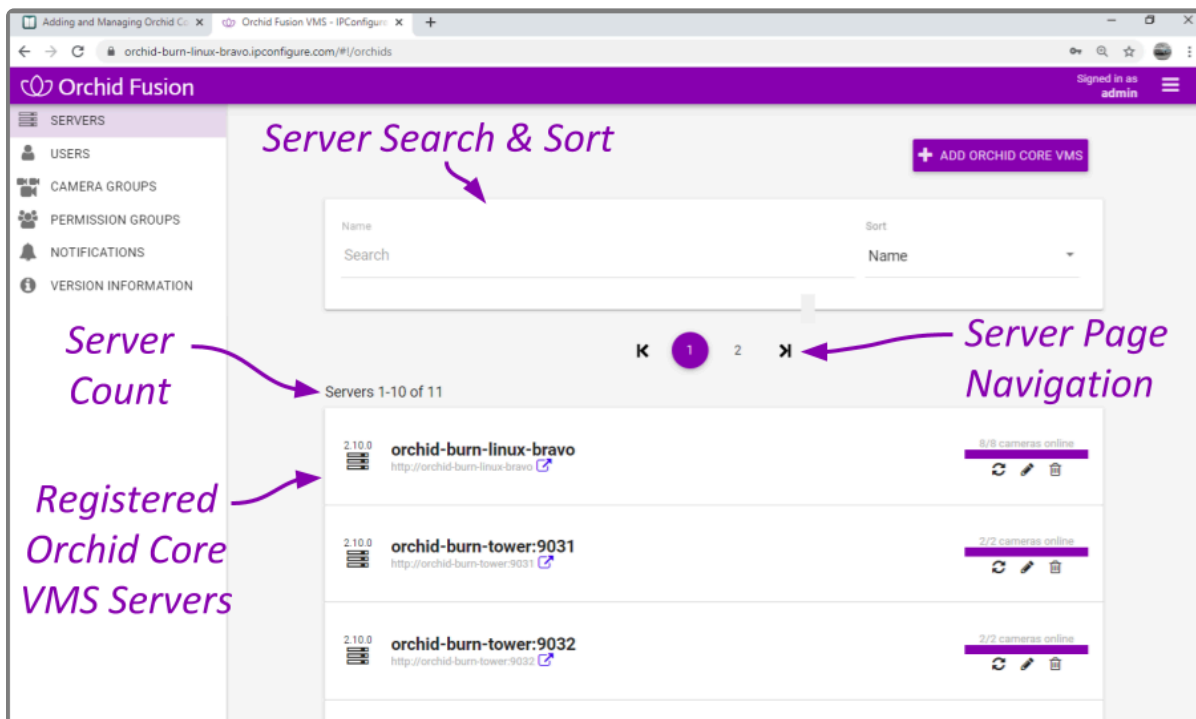
✿ **Shortcut:** If you need to get back to the *Stage* and prefer to bypass the *System Menu*, just click on the Orchid Core header.

Adding and Managing Orchid Core VMS Servers

The *Servers* screen is a critical part of the Orchid Fusion VMS setup process. This screen provides a list of all of the registered Orchid Core VMS servers. Not only does this screen allow you to add and delete servers, it now offers access to all of the critical administrative features which, prior to Orchid Fusion VMS version 2.2.0, were available only within Orchid Core VMS.

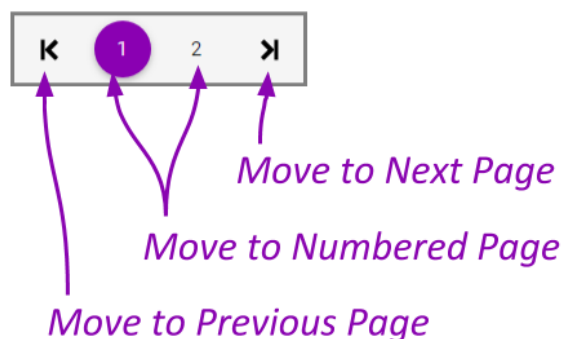
1. To access the *Servers* screen, open the *System Menu* in the top-right corner of the screen, then select *Servers*.

✿ You must be a member of an Administrator group to add and manage servers.

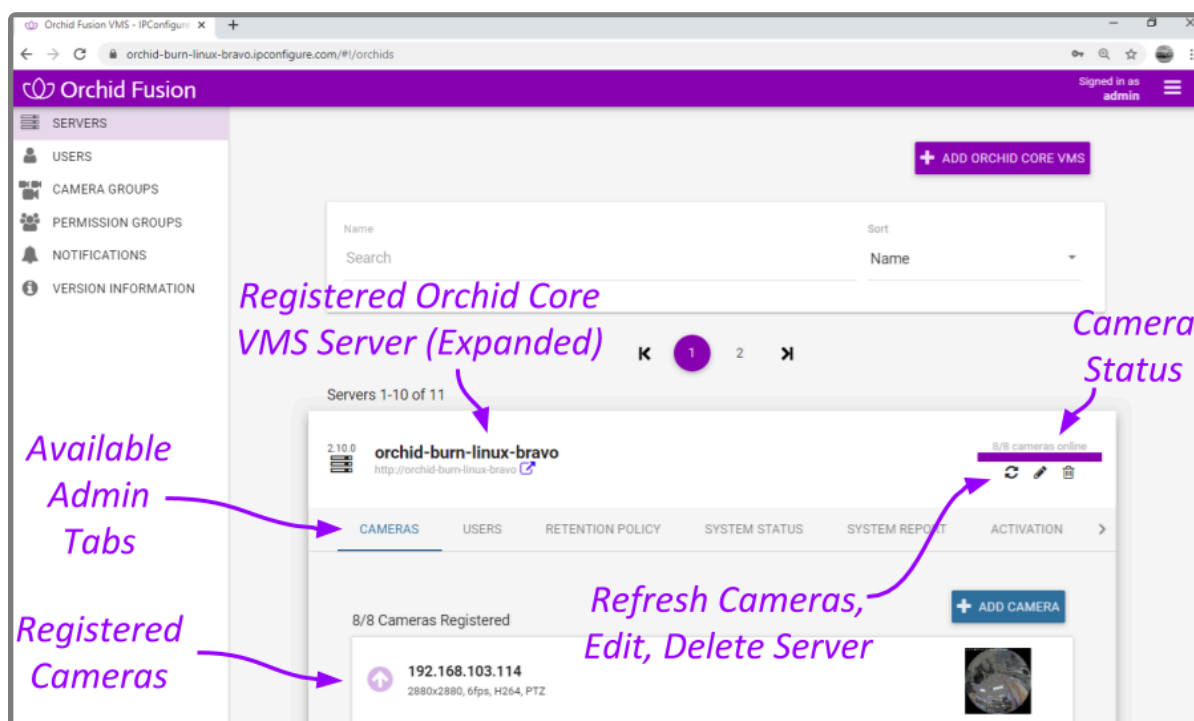


The *Servers* screen lists up to 10 Orchid Core VMS servers per page (by default). If you have more than 10 registered servers, additional pages will be added automatically. This will also activate the server page navigation tools, and the server search and sort features.

The navigation tools will appear at the top and bottom of the screen. These will allow you to move easily from page to page.

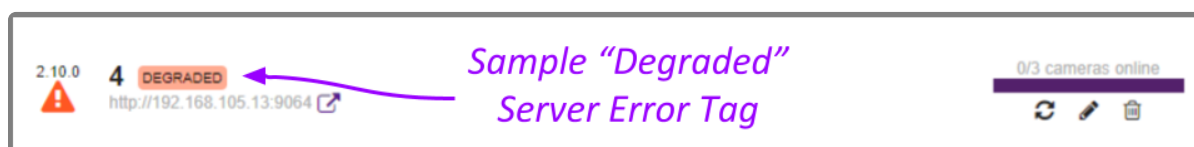


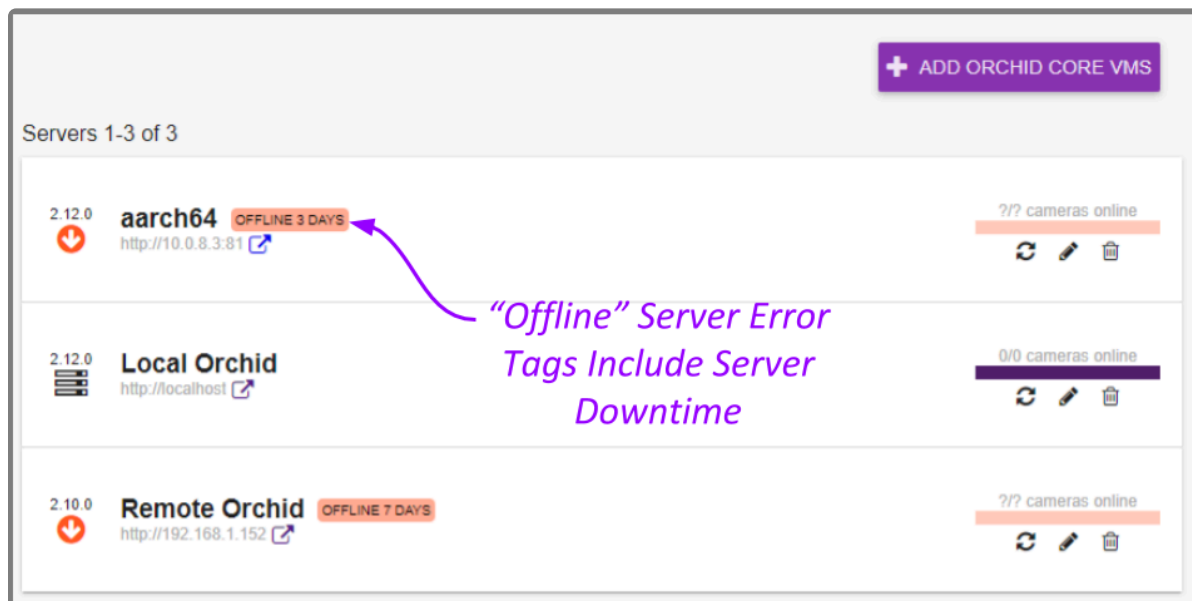
When you click on any server listed, it will expand to display the available administrative tabs, starting with the *Cameras* tab. You can use these tabs to work with the server, performing tasks previously available only within Orchid Core VMS.



Server Error Tags

The *Servers* screen now displays a descriptive error tag for any Orchid Core VMS server that is not in a healthy state. These can help you identify problems quickly and get them resolved.





Error tags include the following:

- **Expiring:** This indicates that the Orchid Core VMS server's license is due to expire in the next 24 hours.
- **Offline:** This indicates that Orchid Fusion VMS is unable to communicate with the Orchid Core VMS server. This server error tag will also indicate how long the server has been offline.
A server may go offline in a variety of situations such as:
 - The Orchid Core VMS server is not running
 - The Orchid Core VMS server lost its network connection
 - The Orchid Core VMS server was manually detached from the Orchid Fusion VMS server
- **Unsupported:** The Orchid Core VMS server is running a software version that is older than the required minimum version.
- **Degraded:** The Orchid Core VMS server is in a degraded state (due to a license error or a storage device error).

Add an Orchid Core VMS Server



This is the **Add** icon.

1. On the *Servers* screen, press the **Add Orchid Core VMS** button to access the *Register an Orchid Core VMS Server* screen.

The dialog box titled "Register an Orchid Core VMS Server" has a purple header bar with a close button (X) in the top right corner. It contains four input fields: "Server Name *" with the value "Orchid Demo 2", "Server URL *" with the value "https://orchid2.ipconfigure.com", "Username *" with the value "mhunt", and "Password *" with masked characters "*****". A character count "13 / 99" is displayed below the Server URL field. At the bottom right, there are two buttons: "CANCEL" and "REGISTER".

2. To add a new server, enter the Orchid Core VMS server name and the URL.
 - If the Orchid Core VMS server is on the same machine as Orchid Fusion VMS, the URL would be: `http://localhost`.
 - Enter your Orchid Fusion VMS username and password.
 - Press the **Register** button to add the server to Orchid Fusion VMS.

It may take a moment for Orchid Fusion VMS to add the server successfully. When complete, the new server will appear in the list on the *Servers* screen. If Orchid Fusion VMS fails to add a server, an error message will appear.




Beginning with Orchid Fusion VMS version 2.10.0, if you attempt to add an Orchid Core VMS server with software older than version 2.8.0, you will receive an error like the one pictured below. You will need to upgrade the Orchid Core VMS server software to version 2.8.0 or greater in order to register the server.

Register an Orchid Core VMS Server ✕

| | |
|---------------|------------------|
| Server Name * | Server URL * |
| Orchid1 | http://localhost |
| 7 / 99 | |
| Username * | Password * |
| orchid | ***** |

✕

 Orchid Fusion VMS is not compatible with Orchid Core VMS version: 2.6.1. Minimum required version: 2.8.0.

CANCEL REGISTER

Refresh Cameras



This is the **Refresh Cameras** icon.

On the right side of the *Servers* screen, you will notice that for each Orchid Core VMS server, the software will indicate how many of the server's cameras are online (such as 4/4 cameras online, or 8/10 cameras online).



If you observe that one or more cameras are offline, do the following:

1. To see which cameras are offline, click on the server name, or anywhere on the server's entry to expand the entry to list all of the cameras. If a camera is offline, the arrow at the left of the camera name will be red and pointed down. (A thumbnail for the camera may be displayed, but a stream preview will be unavailable.)
2. To get the latest camera status, press the **Refresh Cameras** icon. (If a camera doesn't respond, please refer to the [Advanced Topics](#) section.)

Edit Orchid Core VMS Server Settings



This is the **Edit** pencil icon.

After a server has been added to Orchid Fusion VMS, the Orchid Core VMS server settings can be updated through the *Servers* screen. This feature can be used to simply change the server name, or as a troubleshooting tool (if nothing appears to be working on this server).

1. From the list of registered servers on the *Servers* screen, click the **Edit** pencil to the right of the server you want to edit. The *Update Settings* screen will appear.

Update IPConfigure Office Server Settings

Server Name *

IPConfigure Office

18 / 99

☐ Recover this Orchid Core VMS server

CANCEL UPDATE

2. To change the name of the Orchid Core VMS server, enter a new server name, then press the **Update** button.
3. If the server doesn't appear to be working or displays that it is unavailable, mark the *Recover this Orchid Core VMS Server* checkbox.

Update IPConfigure Office Server Settings

Server Name *
IPConfigure Office

18 / 99

☒ Recover this Orchid Core VMS server

Server URL *
https://orchid.ipconfigure.com

Username *
mhunt

Password *

CANCEL UPDATE

Attempt Recovery with Original or New URL

Enter Orchid Core VMS Server Credentials

This feature can help in two (somewhat common) situations:

- If someone has changed the Orchid Core VMS server URL, Orchid Fusion VMS (unaware of that change) will no longer be able to connect to the server.
 - If someone has detached the Orchid Core VMS server from within the Orchid Core VMS software, Orchid Fusion VMS will no longer be able to connect to the server.
4. To attempt to recover the Orchid Core VMS server at the same URL, enter the username and password for any Administrator account on that server.
 5. To attempt to recover the Orchid Core VMS server at a new URL, enter the new URL in the *Server URL* field, then enter the username and password for any Administrator account on that server.
 6. When all entries are complete, press the **Update** button.

✿ This recovery method should preserve all of the permissions that were configured using the original server.

✿ If the server is still unavailable, please refer to the [Advanced Topics](#) section of this guide for additional help.

Delete an Orchid Core VMS Server



This is the **Delete / Trash Can** icon.

1. To remove a server from Orchid Fusion VMS, go to the *Servers* screen and identify the Orchid Core VMS server you want to delete.
2. Click the **Trash Can** icon to the right of the selected server. Orchid Fusion VMS will ask you to confirm that you want to delete the server. Press **Unregister** to confirm. This cannot be undone.



You can re-register the server, if needed, but all of the permissions will need to be re-configured.

Open an Orchid Core VMS Server



This is the **External Link** icon.

Orchid Fusion VMS provides easy access to each of the registered Orchid Core VMS servers. This external link is less critical now because in Orchid Fusion VMS 2.2.0, the scope of the *Servers* screen was expanded to include all of the key Orchid Core VMS features. However, this link may still be helpful in some situations.

1. To open a server from Orchid Fusion VMS, go to the *Servers* screen and identify the Orchid Core VMS server you want to access.
2. Click the **External Link** icon to the right of the selected server. Orchid Fusion VMS will load the Orchid Core VMS server which will open to the *Sign In* screen. Sign in with a username and password for that server. (The Orchid Core VMS servers only allow local sign in; Google and Active Directory credentials cannot be used here.)
3. After signing in, you may work with the Orchid Core VMS server as needed. (Please refer to the remainder of this section or the [Orchid Core VMS Administrator Guide](#) as needed.)



Depending on how your network is configured, your Orchid Fusion VMS server may have access to Orchid Core VMS servers that are not accessible from your web browser — so this link may not always work!

Search / Sort Servers

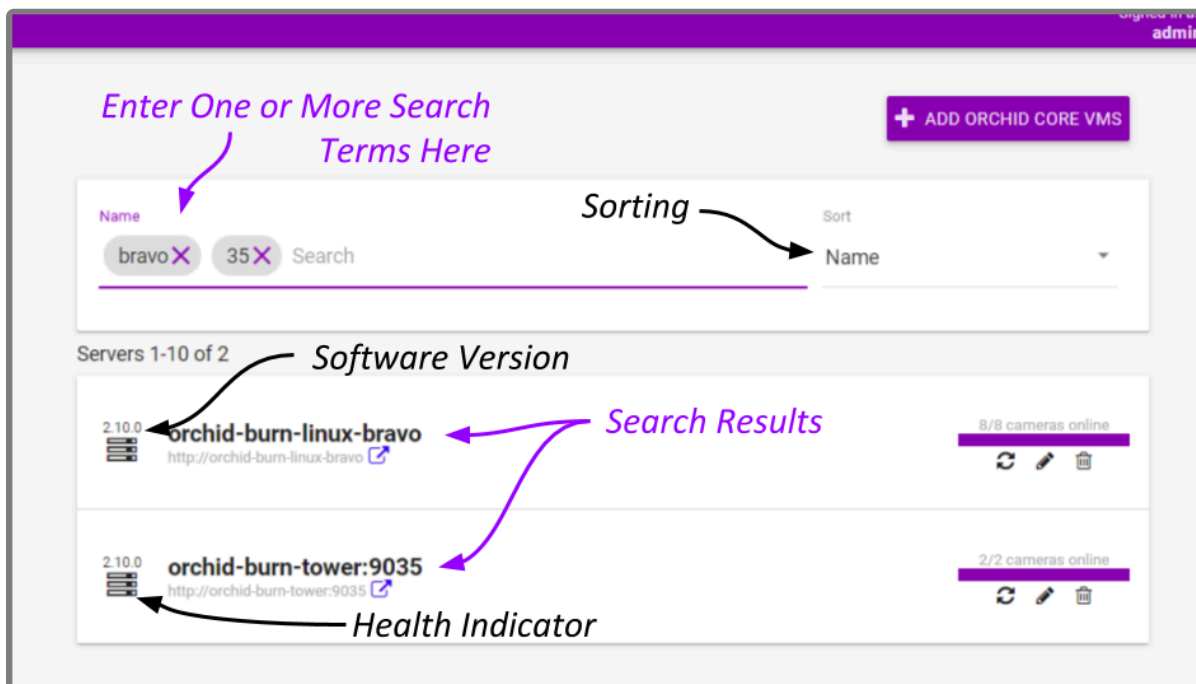
If you have more than 10 registered Orchid Core VMS servers (by default), the *Servers* list will extend beyond one page. When this happens, the software will automatically activate the server search and sort features. Especially useful with large systems, these tools will help you find specific servers quickly.

Server Page Search

The *Search* field will appear at the top of the *Servers* screen. It supports searching by server names, using single and multiple search tags.

1. Click into the *Search* field to start your search.
2. Type one or more search tags (clicking **Enter** after each).
 - a. A single search tag with multiple terms (words or numbers) will initiate a search for results that include all of the terms in the tag.
 - b. Multiple, single-term search tags will initiate a search for results that include at least one of those tags.

Each time you press **Enter**, the *Servers* screen will update to display all of the servers that contain the tag(s).



Server Page Sort

The *Sort* field will appear to the right of the *Search* field. This feature supports sorting the *Servers* list by

server name, health, and software version number.

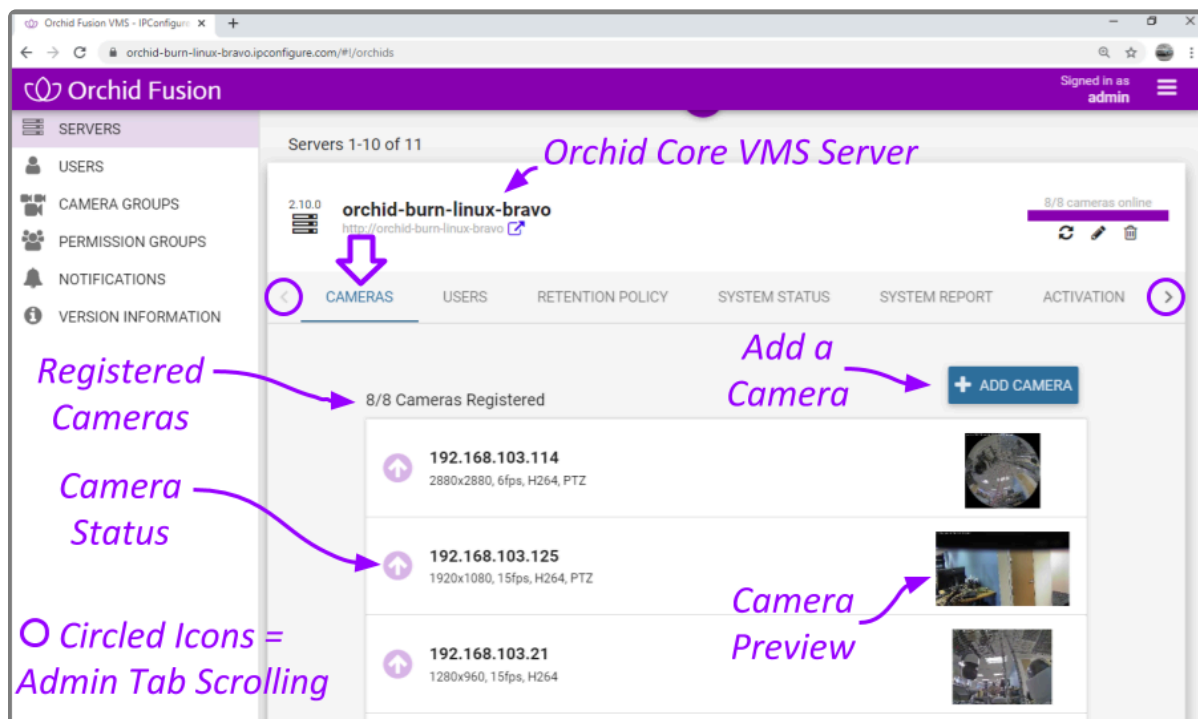
1. Click on the *Sort* drop-down list to select a sort option: *Name*, *Health*, or *Version*. The servers in the list will appear in order per the selected sort option.
 - a. If you sort by *Name*, the servers will appear in alphabetical order by server name.
 - b. If you sort by *Health*, the servers in an error condition will appear first. The remaining “healthy” servers will be sorted by the number of cameras down (with the highest number of cameras down appearing first).
 - c. If you sort by *Version*, the servers will be listed by software version number (oldest to newest).

The Cameras Tab

The *Cameras* tab provides you with a list of all the cameras registered to the Orchid Core VMS server, and allows you to add and delete cameras and configure camera stream settings.

✿ Even though you can work with the cameras within Orchid Fusion VMS, the camera streams will still be recorded on the Orchid Core VMS server.

1. Once you access the *Servers* page, select a server and click on the *Cameras* tab.



The *Cameras* tab opens with a list of cameras that have already been registered, if any. The process for adding most cameras is fairly simple, especially if the camera supports ONVIF auto-discovery.

Add Cameras

Adding One or More Cameras (using Auto Mode)

+ This is the **Add** icon.

- From the list of registered cameras on the server's **Cameras** tab, press the **Add Camera** button to access the **Register Cameras** screen. The software will open the **Register Cameras** screen in **Auto** mode by default. This screen displays a list of all the cameras Orchid Core VMS was able to auto-discover.

* In order for Orchid Core VMS to auto-discover cameras, they must support ONVIF auto-discovery and be located on the same network subnet. If you have cameras that are not automatically discovered, they can always be added manually.

Register Cameras

AUTO **MANUAL** *Select Auto Mode*

Credentials

Username
admin

Password

REGISTER SELECTED CAMERAS

| <input type="checkbox"/> | Model | IP |
|-------------------------------------|----------------------|-----------------|
| <input checked="" type="checkbox"/> | AXIS Q1765-LE | 192.168.105.254 |
| <input checked="" type="checkbox"/> | Panasonic WV-SFV781L | 192.168.105.10 |
| <input checked="" type="checkbox"/> | AXIS P1365 | 192.168.105.12 |
| <input type="checkbox"/> | VIVOTEK MS8391-EV | 192.168.105.13 |
| <input type="checkbox"/> | XNV-6011 | 192.168.105.15 |
| <input type="checkbox"/> | AXIS Q1765-LE-PT | 192.168.105.16 |
| <input type="checkbox"/> | AXIS P3384 | 192.168.105.17 |
| <input type="checkbox"/> | AXIS Q1765 | 192.168.105.18 |

Auto-discovered Cameras

Select Cameras to Add

Camera Already Added

- To add a new camera, mark the checkbox next to the camera. (You may select multiple cameras as long as they all use the same ONVIF username and password.)
- Enter the ONVIF username and password that is setup on the camera(s) you would like to add.
- Press the **Register Selected Cameras** button to add selected cameras to the Orchid Core VMS server.

Depending on the number of cameras being added, it may take a few minutes for Orchid Core VMS to add them successfully. When complete, the software will display a list of all cameras that were successfully and unsuccessfully added. If Orchid Core VMS fails to add a camera, an error message will appear.

5. Go to each of the newly added cameras and enter a unique, descriptive name for each one. (Good camera names are important because they are searchable in Orchid Fusion VMS.) You should also review or edit the camera stream settings.

✿ If these newly added cameras will use similar stream settings, you may use the *Copy Stream to Cameras* feature to configure multiple cameras at once.

✿ If you have any trouble adding cameras, please refer to the *Advanced Topics* section of the [Orchid Core VMS Administrator Guide](#) for additional help.

Adding a Single Camera (in Manual Mode)

If Orchid Core VMS cannot autodiscover a camera, it can be added manually.

1. At the server's *Cameras* tab, press the **Add Camera** button to access the *Register Cameras* screen. The *Register Cameras* screen will open in Auto mode.
2. Select **Manual** mode.

Register Cameras

AUTO **MANUAL**

Select Manual Mode

Register Camera

Driver: ONVIF

ONVIF Discovery URL: *Enter Camera Details* http://192.168.1.1/onvif/device_service

Camera Name *: Fish Eye Cam

Credentials

Username: admin

Password: *****

CANCEL REGISTER

3. Select the appropriate driver (*ONVIF* or *RTSP*) from the drop-down list.

* While the Generic RTSP driver is available when adding cameras manually, this is not always guaranteed to work due to the way different manufacturers handle RTSP streams. The recommended driver to use with Orchid Core VMS is ONVIF.

4. Enter the ONVIF Discovery URL, or the RTSP Stream URL (depending on the driver you specified) to match the correct address for the camera being added. Consult with the camera manufacturer's user guide, as needed, for the correct syntax of the address.
5. Enter a unique name for the camera. This will allow you to distinguish the camera from other cameras set up within the Orchid Core VMS server.
6. Enter the username and password that is setup on the camera being added.

* For some ONVIF cameras, a separate username and password needs to be created specifically for ONVIF. (Please refer to the *Advanced Topics* section of the [Orchid Core VMS Administrator Guide](#) for more information.)

7. Press the **Register** button to add the camera to the Orchid Core VMS server.
When complete, Orchid Core VMS will add the new camera to the list of registered cameras. If Orchid Core VMS fails to add a camera, an error message will appear explaining the issue.
8. Once the camera has been added, review or edit the camera stream settings.



If you have any trouble adding cameras, please refer to the *Advanced Topics* section of the **Orchid Core VMS Administrator Guide** for additional help.

Edit Camera Stream Settings




This is the **Edit** pencil icon.

After a camera has been added to an Orchid Core VMS server, settings such as the stream resolution and frame rate can be updated through the camera stream's configuration. While this is true for most cameras, cameras added using the RTSP driver (old cameras and cameras that don't support ONVIF) cannot be edited through Orchid Core VMS or Orchid Fusion VMS. You will need to access those cameras directly to edit settings. (Refer to the camera manufacturer's documentation for more details.)

1. From the list of registered cameras on the server's *Cameras* tab, click the name of the camera you want to edit. (The list will expand to display all of the information for the selected camera. This includes the camera name, IP address, and all of the available streams.)

Selected Camera
General Camera Info









Camera Information

Camera Name: 192.168.103.64  Camera Model: AXIS P9106-V Stream Status: running

Camera RTSP URL: rtsp://192.168.103.64/onvif-media/media.amp?profile=profile_1_h264&sessiontimeout=60&stream...

Orchid Fusion VMS Proxy RTSP URL: rtsp://orchid-burn-linux-brewo.ipconfigure.com:9554/fusion/orchid-proxy/7fbc2568-eab2-4ef6-...



Streams

| Primary | Name | Configuration | Actions |
|---|----------------|--|---|
|  | profile_1_h264 | 1280x720, 15fps, H264 Continuous recording with motion detection |    |
|  | profile_1_jpeg | 2016x1512, 30fps, JPEG Continuous recording with motion detection |    |

Advanced Settings

FISHEYE DEWARPING MOTION DETECTION

Actions

 DELETE CAMERA  RECOVER CAMERA

Stream in Use **Add Stream** **Advanced Settings** **Delete Camera** **Copy, Edit, or Delete Stream**

2. To change the camera name, click the **Edit** pencil to the right of the camera name. Enter a new name in the *Camera Name* field and press the **Update Camera** button.
3. This screen also displays the camera model and the status of the camera stream in use. These


settings are informational and cannot be altered here; please refer to the *System Status* section for status descriptions.

4. The RTSP URL status fields are typically used for troubleshooting. These allow for a comparison of the video coming from the camera and the video as received by Orchid Core VMS to determine where a problem might be occurring.
 - a. The Camera RTSP URL (which contains the camera's IP address) represents the video stream that Orchid Core VMS is recording.
 - b. The Orchid Proxy RTSP URL represents the video that Orchid Core VMS is showing on the Stage. (For more details, please refer to the section titled *How Orchid Fusion VMS's Proxy Works*, and the two topics that follow it.)



A **camera stream** is a profile with all of the basic settings used by Orchid Core VMS to record video from the camera. The stream currently being used by Orchid Core VMS, the primary stream, is indicated by a darkened camera icon.

5. To select a new stream, click the **Camera** icon located to the left of the name of the stream you want Orchid Core VMS to record with.

 Only one stream per camera can be used at a time. However, multiple stream profiles from the same camera can be used if the camera is added multiple times. This feature is especially useful for cameras with multiple lenses.

6. To edit a stream, click the **Edit** pencil icon which is located to the right of the stream name. After clicking the **Edit** icon, a screen will appear with all of the stream settings available for editing.

Stream Settings

Name* Recording Style

Video Settings

Encoder Bit Rate Frame Rate

GOV Length Profile Resolution

Quality

Low-bandwidth Settings

Decode all frames

Edit Stream Settings

CANCEL UPDATE STREAM

7. Review or change the stream name so users can easily identify the camera stream.
8. Review or change the Recording Style for the camera stream.

You may choose between one of five different recording styles. Refer to the descriptions below (and the table that follows) before making your selection.

- **Continuous Recording with Motion Detection:** Orchid Core VMS will continuously record video from the camera and perform motion detection. This is the default and recommended setting.
- **Continuous Recording without Motion Detection:** Orchid Core VMS will continuously record video from the camera, but will not perform motion detection. This option offers a modest reduction in CPU load on the Orchid Core VMS server.
- **Continuous Recording with Motion Adaptive Frame Rate:** Orchid Core VMS will record at a higher frame rate while motion is detected, and a different (slower) frame rate while no motion is detected. These frame rates are user-selectable (as shown in the screenshot following the table). Due to the way H264 compresses video, this recording style typically shows significant savings in disk usage only for inexpensive cameras with noisy sensors, or cameras in low-light environments.
- **Proxy Only:** Orchid Core VMS will provide live video from the camera but will not record video.
- **Recording Only When Motion Detected:** Orchid Core VMS will only record video from the camera when motion is detected. This may result in a reduction in disk usage on the Orchid Core VMS server, however, motion detection accuracy may vary and result in video loss.



Motion detection can be further customized using *Advanced Settings* on the *Camera Configuration* screen.

| | Continuous recording with motion detection – Default | Continuous recording without motion detection | Continuous recording with motion adaptive frame rate | Proxy only, no video will be recorded | Recording only when motion is detected |
|---|--|---|--|---------------------------------------|--|
| Recording and playback are available | Yes | Yes | Yes | No | Yes – When motion is detected |
| Live view is available in low-bandwidth mode | Yes | No | Yes | No | Yes |
| Thumbnail previews are available | Yes | Yes | Yes | No | Yes |

If you select the *Continuous recording with motion adaptive frame rate* recording style, you will need to set both the *Frame Rate During Motion* and the *Frame Rate During Non-Motion*. (The *Frame Rate During Motion* will dictate the available settings for the *Frame Rate During Non-Motion*. Allowable settings for the *Frame Rate During Non-Motion* range from 1 up to a setting that is less than or equal to the *Frame Rate During Motion*.)

Stream Settings

Name*

Recording Style

Frame Rate During Motion Frame Rate During Non-Motion

Video Settings

Encoder

Bit Rate

Frame Rate

These values can be manipulated above while Motion Reduction is selected.

GOV Length

These values can be manipulated above while Motion Reduction is selected.

Profile

Resolution

Quality

Low-bandwidth Settings

☐ Decode all frames

CANCEL UPDATE STREAM

Additional Settings

- Continue to review and change camera stream settings for video, audio and bandwidth as needed. Refer to the definitions below for help in selecting settings.

Video Settings

Each camera type reports its own default values provided by the camera manufacturer. Use those default values unless otherwise noted.

- **Encoder:** The type of compression used for the camera's video. In WebRTC mode, Orchid Core VMS only supports H264 video. In Low-bandwidth mode, Orchid Core VMS supports JPEG, MPEG4, and H264 (recommended). (Available selections depend on the camera.)
- **Bit Rate:** The target data size (in kilobits per second) of the compressed video. Increasing this value will typically improve image quality at the expense of increased disk usage and reduced retention. In WebRTC mode, bit rates of 2000 kbps or less tend to work best. The default value is recommended.
- **Frame Rate:** The number of frames per second transmitted within the video stream. Most Orchid Core VMS users are best served by values between 7 and 12. Higher frame rates provide more video detail at the expense of reduced video retention and increased bandwidth usage.
- **GOV Length:** When using H264 compression, this value specifies how often the camera sends a full image frame (instead of a "change frame" which only describes differences between frames). For

example, if this is set to 15, Orchid Core VMS will send a full image frame once every 15 frames. Be aware of how this setting may impact video quality. As the GOV length decreases, the system will need to send more keyframes of video (within the set bit rate). This may result in a loss of quality for those keyframes. The default value is recommended.

- **Profile:** When using H264 compression, this specifies an H264 Profile of either Baseline, Main, or High. Higher profiles offer better compression (which means increased retention and lower bandwidth usage) at the expense of increased CPU utilization when decoding video. The highest available profile is recommended.
- **Resolution:** The resolution of video transmitted by the camera. Higher values increase video detail at the expense of reduced video retention and increased bandwidth usage. Most Orchid Core VMS users are best served by resolutions between 1280×720 and 1920×1080.
- **Quality:** This value affects how much the video is compressed. Higher values increase video quality at the expense of increased storage requirements (and thus reduced video retention). The default value is recommended.

Audio Settings (if supported)

Beginning in Orchid Fusion VMS version 2.10, audio control is no longer supported at the Player/Stage level. However, the Orchid Core VMS server is still recording audio for those cameras that support it, and this audio will be available in exported video files. Future versions of Orchid Fusion VMS will support audio over WebRTC.

These Audio Settings will appear on the screen only if the camera supports audio and will determine how the Orchid server records the audio. Each camera type reports its own default settings. Use those default values unless otherwise noted.

- **Encoder:** The type of compression used by the camera's audio. Orchid Core VMS supports "None" (audio is disabled), G711, and AAC (recommended if audio is desired).
- **Bit Rate:** The target data size (in kilobits per second) of the compressed audio. The default value is recommended.
- **Sample Rate:** Affects the quality of recorded sound. The default value is recommended.

Low-bandwidth Settings

- **Decode all frames:** This setting applies to viewing Live video in Low-bandwidth mode. When Decode all frames is *disabled*, Orchid Core VMS will display only full frames (per the configured GOV length) when viewing live video in Low-bandwidth mode. When Decode all frames is *enabled*, Orchid Core VMS will display every available frame from the camera (regardless of GOV length) when viewing live video in Low-bandwidth mode, assuming sufficient bandwidth exists. Decode all frames is disabled by default because enabling this setting will increase CPU use on your Orchid Core VMS server. (For more details on Low-bandwidth mode, please refer to the *Advanced Topics* section.)

10. Once the stream settings have been updated, click the **Update Stream** button to save the new stream

settings. It may take a few seconds for the settings to change based on the camera being updated.

11. You may review the impact that the stream settings have on video playback for each camera. Simply click on the corresponding thumbnail to watch a current live video feed.

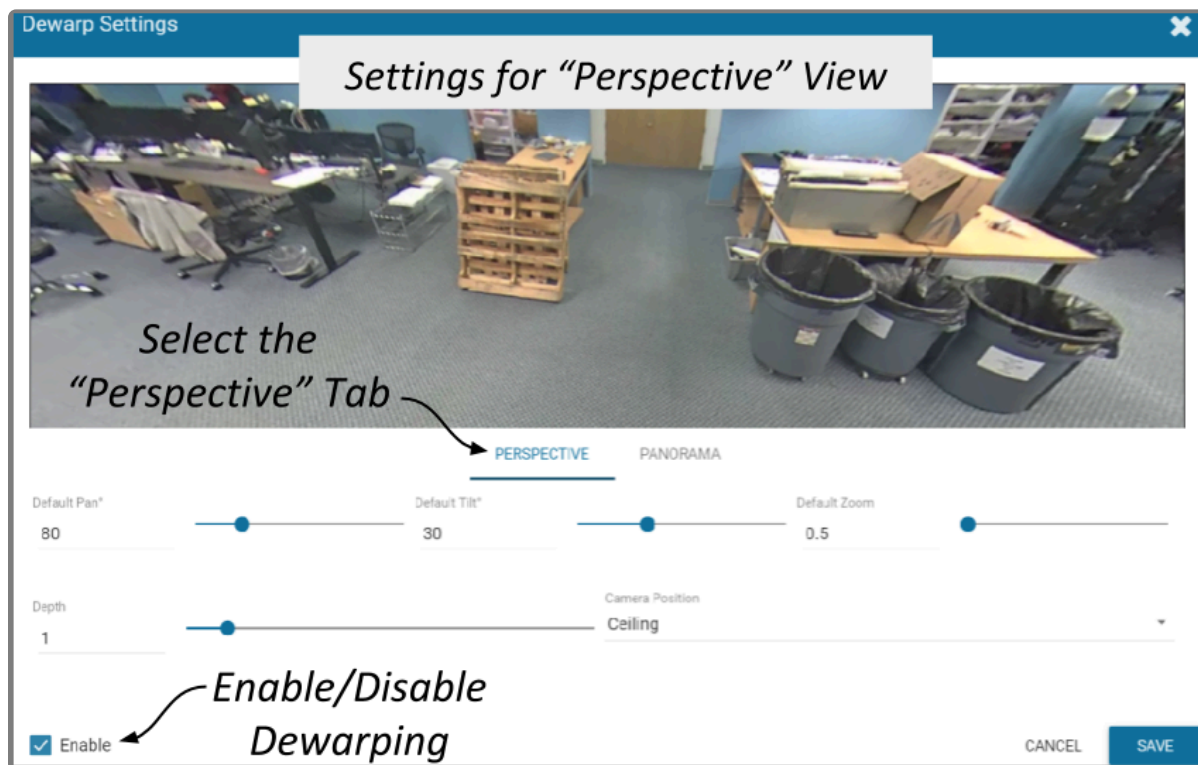
Advanced Settings: Fisheye Dewarping

Starting in Orchid Core VMS version 2.8, the Camera Configuration screen includes Fisheye Dewarping which allows you to manipulate video from fisheye cameras for display on the Player. This feature provides three viewing options: Off, Perspective, and Panorama. This means that you can view the standard fisheye view, or one of two “flattened” views.

For any fisheye camera, the Dewarp Settings allow you to enable or disable the dewarping features, and set a default view for the associated Player.

Perspective

1. At the *Camera Configuration* screen, click the camera you want to edit. Then click the *Fisheye Dewarping* link to open the *Dewarp Settings* screen.



2. Select the *Perspective* tab.

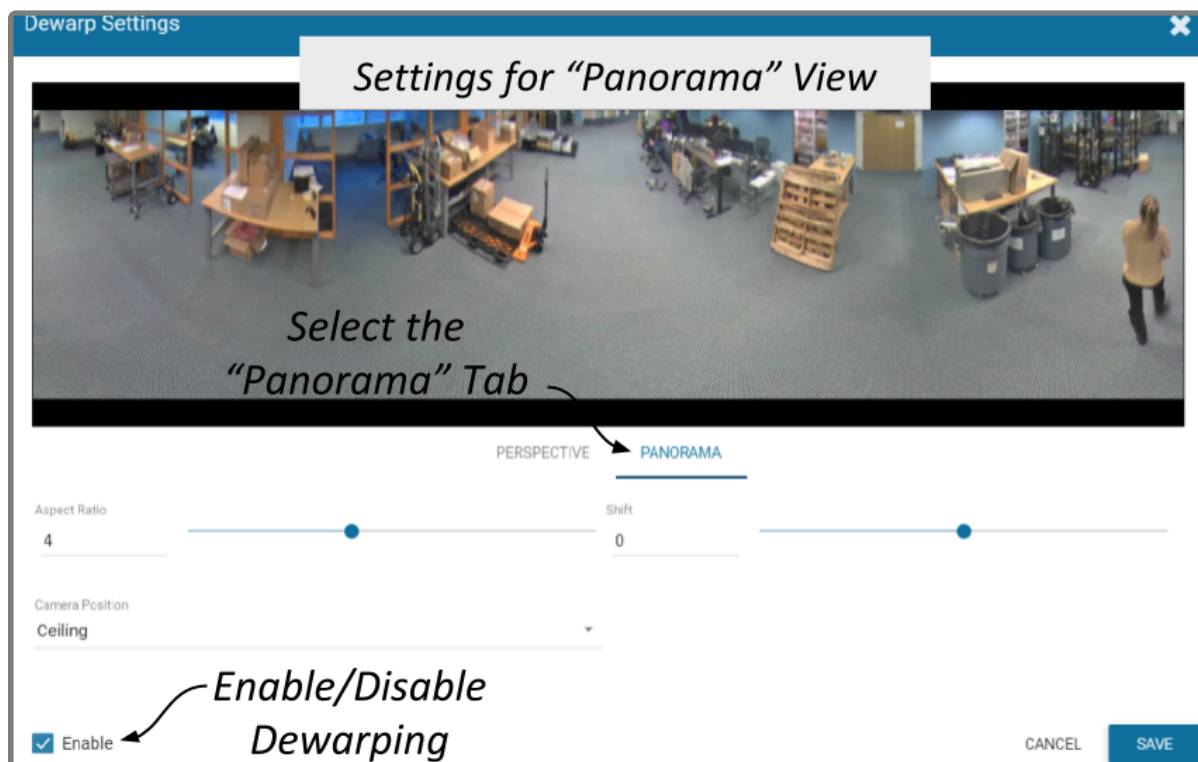
Use the *Perspective* screen to enter settings for the *Perspective* view of the selected camera. The *Perspective* view is a flattened version of the available video from the fisheye camera for which you select a portion of the image as the default view to be displayed on the Player. (The perspective view can also be changed at the Player, but that will not change the default.)

3. Mark the *Enable* checkbox to activate the *Dewarp Settings* (both *Perspective* and *Panorama*) for this camera. (If this is not marked, Dewarping features will not be available at the Player.)

4. Use the *Default Pan* slider to move the camera to the right and left to set the default view.
5. Use the *Default Tilt* slider to move the camera up and down to set the default view. (Be aware that it is possible to tilt the view beyond the capability of the camera; if this happens, portions of the screen will appear black.)
6. Use the *Default Zoom* slider to zoom into or out of the image to set the default view. (Be aware that it is possible to zoom beyond the capability of the camera; if this happens, portions of the screen will appear black.)
7. Use the *Depth* slider to stretch or compress the image height to set the default view. (This can cause extreme image distortion at the bottom and top ends of the scale. The default value is likely the best setting.)
8. Use the drop-down list to select the camera's mounting location as *Ceiling*, *Floor*, or *Wall*. (This setting will impact how the software displays the camera image.)
9. Press the **Save** button to save your settings, or **Cancel** to exit without saving.

Panorama

1. Select the Panorama tab.



Use the Panorama screen to enter settings for the default Panorama view of the selected camera. The Panorama view is a flattened version of the available video from the fisheye camera. This view displays the entire image and cannot be altered at the Player.

2. Mark the Enable checkbox to activate the Dewarp Settings (both Perspective and Panorama) for this camera. (If this is not marked, Dewarping features will not be available at the Player.)

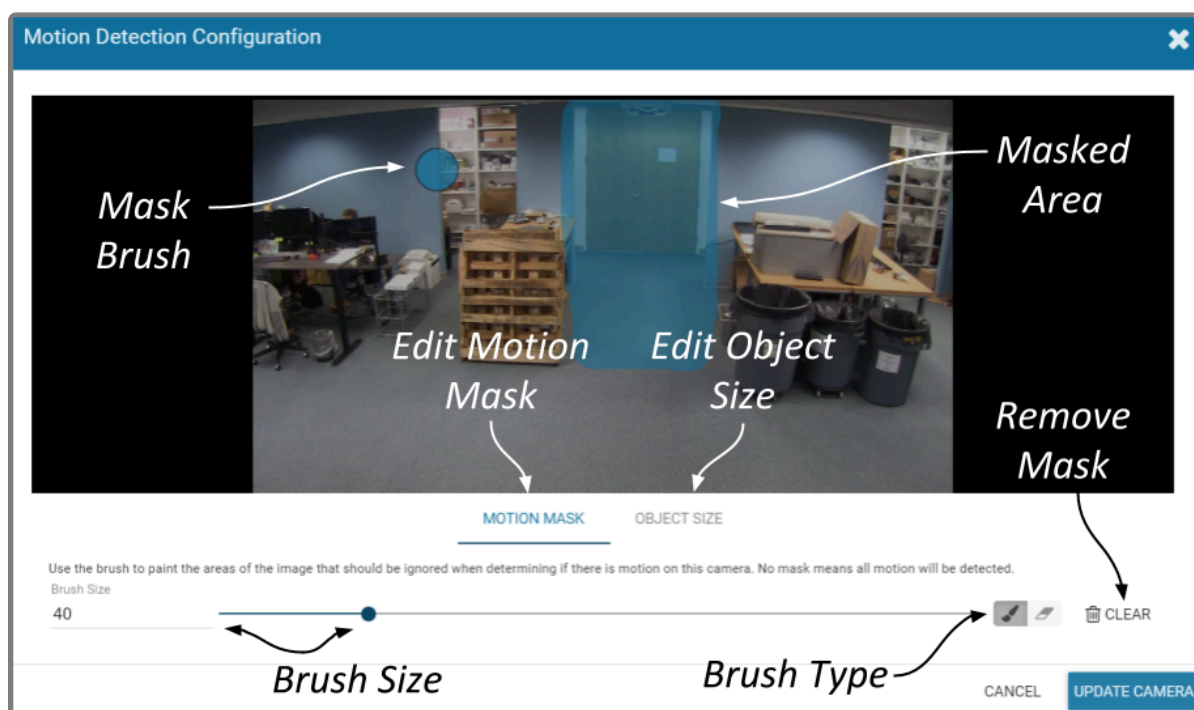
3. Use the Aspect Ratio slider to change the amount of Player area the image will fill. You might take some time to experiment with this setting, but the points below describe how it works.
 - a. At the high end of the scale, the image will fill the length of the Player, but the height of the image will be condensed.
 - b. At the center of the scale, the image will fill the length of the Player, and the height of the image will be at its least distorted.
 - c. As you move from the center of the scale to the low end, the height of the image will stretch toward the top and bottom of the Player.
 - d. From the point that the image fills the Player, if you continue to move to the bottom of the scale, the image width will shrink until the image disappears.
4. Use the *Shift* slider to adjust the center point of the image. (If there is a certain part of the image that you prefer at the center of the Player, use the slider to make this adjustment.)
5. Use the drop-down list to select the camera's mounting location as *Ceiling*, *Floor*, or *Wall*. (This setting will impact how the software displays the camera image.)
6. Press the **Save** button to save your settings, or the **Cancel** button to exit without saving.

Advanced Settings: Motion Detection

Starting in Orchid Core VMS version 2.6, the *Camera Configuration* screen includes *Motion Detection Settings* which allow you to apply camera-specific motion detection settings. The *Motion Detection Configuration* screen provides two tools to reduce the number of “nuisance” motion captures: *Motion Mask* and *Object Size*.

Motion Mask

1. At the *Camera Configuration* screen, click the camera you want to edit. Click the *Motion Detection* link to open the *Motion Detection Configuration* screen.



2. Select the *Motion Mask* tab (just underneath the video image). Use this screen to change the way motion detection is applied to the selected camera.

By default, all cameras are set to detect motion. When motion is detected, a motion event is recorded and will appear on the *Timeline Bar* (which is intended to make video review easier). But sometimes, the camera captures too much motion. There may be objects in the video, like trees, banners, or balloons, that move constantly, increasing the number of motion events to such a degree that it actually makes video review more tedious.

The *Motion Mask* tool allows you to “paint” over one or more areas of the video image, making those areas invisible to motion detection. (You will still see all of the video, but the motion capture feature will ignore the masked area.)

3. Select the *Brush Type*.

- a. The paint brush will add a masked area to the video image. This area will be ignored by the motion detection feature.
 - b. The eraser will remove masked area from the video image. This area will now be evaluated during motion detection.
4. Adjust the *Brush Size* using either of the following methods.
 - a. Click in the *Brush Size* field and enter a new number or use the up and down arrows to increase or decrease the size of the brush.
 - b. Click and drag the slider to increase or decrease the size of the brush.
5. Position your cursor over the video image and you'll see a blue circle (the mask paint brush) or a pink circle (the mask eraser). (Adjust the brush size if needed.)
6. Click and drag the brush across the video image to change the masked area.
 - a. If you selected the paint brush, you will add masking to the image.
 - b. If you selected the eraser, you will remove masking from the image.
7. To remove the entire mask, click the **Clear** button.
8. To save the mask (or the cleared image), click the **Update Camera** button.

✿ Due to the variability of the video image that comes with PTZ cameras, the *Motion Mask* feature should not be used with PTZ cameras.

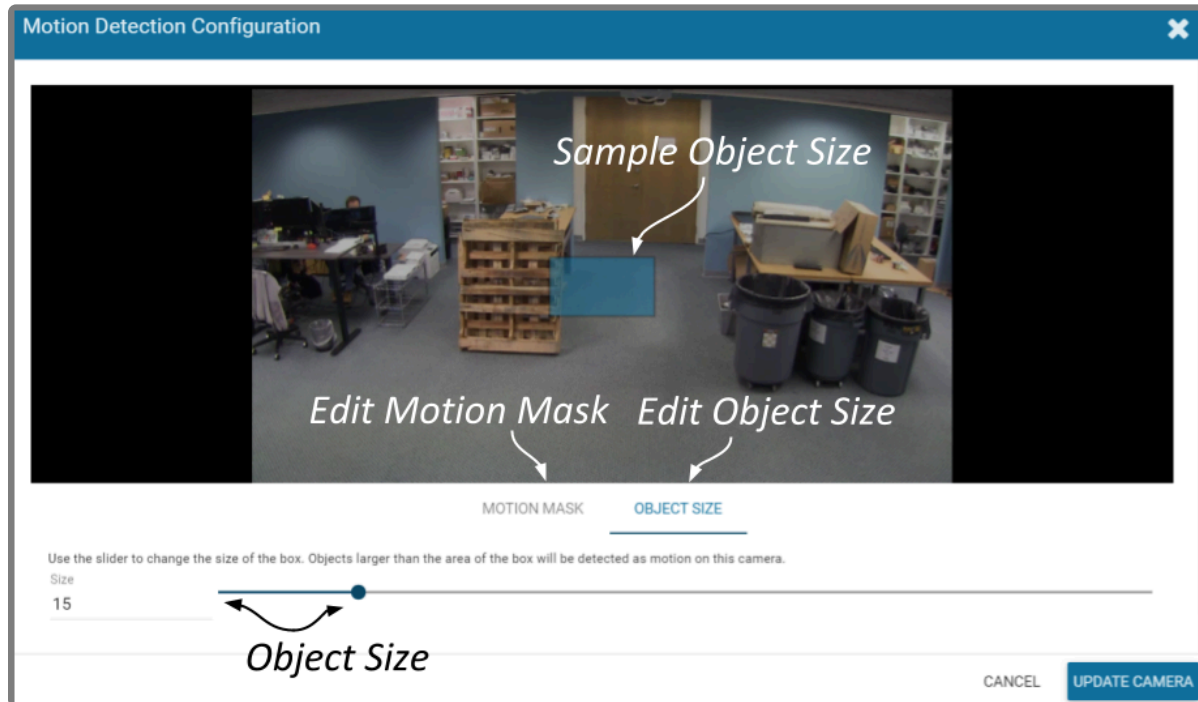
✿ There are some circumstances that will inhibit motion detection. If the motion enters and exits the video image very quickly, the system may not see enough of the frames to detect the motion. If this becomes an issue, you may want to consider reducing the stream GOV setting (which results in more keyframes), or enable the *Decode all frames* option. Keep in mind, however, that this will put additional load on the server.

Object Size

The *Object Size* tool allows you to modify motion detection based on area. This tool instructs the software to ignore the movement of any objects with a smaller area than the selected object size (like small animals and robot vacuum cleaners). (You will still see all of the video, but the motion capture feature will ignore the small stuff.)

1. Select the *Object Size* tab (just underneath the video image). Notice the blue square in the center of the video image. This represents the defined object area. Objects of equal or lesser area will be ignored by motion detection.

For example, if the selected object size (area) is 100, the software will ignore objects with an area of 100 or less. This includes objects that are 10 × 10, 20 × 5, 30 × 3, 45 × 2 and so on (each of which have an area of 100 or less).



2. Adjust the *Object Size* using either of the following methods.
 - a. Click in the *Size* field and enter a new number or use the up and down arrows to increase and decrease the area.
 - b. Click and drag the slider to increase and decrease the area.
3. To activate motion detection for objects of all sizes, set the *Size* to zero.
4. To save the *Object Size* settings, click the **Update Camera** button.

* When selecting the *Object Size*, it may be better to keep it small. As this selection gets larger, the system ignores more motion events (which may be detrimental to your overall objective).

* The *Motion Mask* and *Object Size* tools can be used together to completely customize motion detection for each camera.

Working with Camera Streams

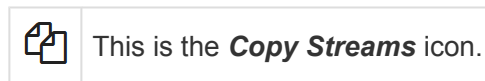
Add a Stream



Usually you will not need to add a stream unless your camera does not come configured with any streams by default.

















1. From the *Camera Information* screen, press the **Add Stream** button to add a new stream for the selected camera. The *Stream Settings* screen will open, allowing you to enter and modify the settings for the stream.
2. When all settings have been entered, press the **Add Stream** button to add the new profile to the *Streams* list for the selected camera.

Copy Stream to Cameras



This feature is a great shortcut to use if you have multiple, similarly configured cameras to set up. Once you complete a stream settings profile for one camera, you can copy all (or part) of that profile to one or more cameras with one click. This shortcut is especially useful if you have added multiple cameras at once (using Auto mode).

1. From the list of registered cameras on the *Cameras* tab, click the name of the camera you want to use as a model.
2. Then add or edit a camera stream that contains the settings you would like to copy to other cameras.
3. Once your template profile is complete, click the **Copy Stream to Cameras** icon for the stream you want to copy.

| Primary | Name | Configuration | |
|---|-----------------|--|---|
|  | profile_0 h264 | 2048x2048, 15fps, H264 Continuous recording with motion detection |    |
|  | profile_0 jpeg | 2048x2048, 15fps, JPEG Continuous recording with motion detection |    |
|  | profile_11 h264 | 2560x1440, 15fps, H264 Continuous recording with motion detection |    |
|  | profile_11 jpeg | 2048x2048, 15fps, JPEG Continuous recording with motion detection |    |

Copy Stream

- * RTSP cameras have a limited number of settings that can be edited in Orchid Core VMS. These cameras will not display the **Copy Stream** icon and are not eligible for the **Copy Stream** feature.

A screen will appear that will allow you to edit and complete the profile transfer to selected cameras.

Copy profile_1 h264 to Cameras

☐ Copy all settings *Shortcut*

| <input type="checkbox"/> | Setting | Value |
|-------------------------------------|-----------------|--|
| <input type="checkbox"/> | Recording Style | Continuous recording with motion detection |
| <input checked="" type="checkbox"/> | Video Settings | Show 6 hidden fields |
| <input type="checkbox"/> | Audio Settings | Show 1 hidden fields |

Expandable

The stream settings will be adapted as shown to work with the chosen cameras.

☐ Show only perfect copies

| <input type="checkbox"/> | Camera | Best Match |
|--------------------------|------------------------------|---|
| <input type="checkbox"/> | 192.168.100.39 AXIS Q6042 | Video: Resolution: 1280x720 → 752x480 |
| <input type="checkbox"/> | 192.168.100.68 FE8191 | Video: EncoderInterval: 0 → 1 Resolution: 1280x720 → 1024x1024 Video: EncoderInterval: 0 → 1 Resolution: 1280x720 → 1056x960 Video: BitRate: 0 → 1 |

Pending Changes (Per Camera)

CANCEL COPY

The screen lists all of the cameras that have been added to the system. It also provides comments to show which cameras are good candidates for the stream settings (which may help you decide if you want to copy all of the settings to all of the cameras.) For each camera that is not a perfect match, Orchid Core VMS will pick the stream setting that is the closest match and indicate how the stream settings will be modified for that camera.

There are several reasons why profile matches might not be perfect. For instance, maybe the model camera is configured to use a higher resolution than is supported by the target cameras. In this case, Orchid Core VMS will choose the closest available resolution on the target cameras.

The appearance of this screen will change as different settings are selected. Depending on how many cameras have been added and which settings are selected, you may need to scroll down to see all of the cameras and settings.

















4. Mark the *Copy all settings* checkbox to copy all of the stream settings. (These will be copied to all of the cameras selected in the lower half of the screen.)
5. Leave the *Copy all settings* checkbox unmarked if you want the ability to choose which settings will be copied.
 - a. Mark the *Setting* checkbox if you decide to copy all of the settings anyway.
 - b. Mark the checkbox for any of the individual categories that you want to copy (including *Recording Style*, *Video Settings*, *Audio Settings*, and *Decode all frames*).
 - c. You may expand the *Video* and *Audio Settings* categories to select individual settings within each, if needed. (Click on the *+Show hidden fields* link to expand the list and the *-Hide fields* link to condense the list.)
6. Mark the *Show only perfect copies* checkbox if you want the software to list only those cameras that can implement the new profile settings exactly. (This checkbox will not appear if there are no camera streams that are a perfect match.)
7. Mark the *Camera* checkbox if you want to copy settings to all of the cameras in the list. Leave the *Camera* checkbox unmarked if you want the ability to choose which cameras will receive the stream settings.
8. Mark the *Overwrite primary stream* checkbox if you want these stream settings to replace the existing primary stream settings on every camera selected. Leave the *Overwrite primary stream* checkbox unmarked if you simply want to add this as a new stream option for each of the selected cameras. (When left unmarked, Orchid Core VMS will not record from this new stream.)
9. Once your selections are complete, click the **Copy** button to send the stream settings to the selected cameras. It may take a few minutes for the settings to change based on the number and type of cameras being updated.
10. When the copy process is complete, click the **Done** button.

Removing a Stream




This is the **Delete / Trash Can** icon.

1. To remove a single camera stream, go to the *Streams List* for a given camera and identify the stream you want to delete.

| Primary | Name | Configuration | |
|---|--------------------|--|--|
|  | Administrator_69ee | 640x480, 15fps, H264 Continuous recording with motion detection | <i>Locked Stream</i>    |
|  | media_profile1 | 1280x720, 6fps, H264 Continuous recording with motion detection |    |
|  | stream_ba2fd7d5 | 1280x720, 6fps, H264 Continuous recording with motion detection | <i>Delete Stream</i>    |
|  | stream_e4932b27 | 640x480, 10fps, H264 Continuous recording with motion detection |    |

- Click the **Trash Can** icon to the right of the selected stream. The software will ask you to confirm that you want to delete the stream. Press **Delete** to confirm. This cannot be undone.

 A red Lock icon indicates that the stream cannot be deleted. This locked state is dictated by the camera and cannot be changed.

Cameras with Multiple Lenses

There are some camera models that have multiple lenses or offer multiple camera views (such as 180- or 360-degree cameras). To take advantage of this capability, you will need to do the following:

1. Add this camera to the system one time for each available lens.
2. Edit the properties for each of the cameras as follows:
 - a. For ease of identification, provide similar but unique camera names. (For example: Tower1East, Tower1West, and Tower1North.)
 - b. To ensure that you are able to view video from each of the available lenses, select a different primary stream for each of the cameras you added.

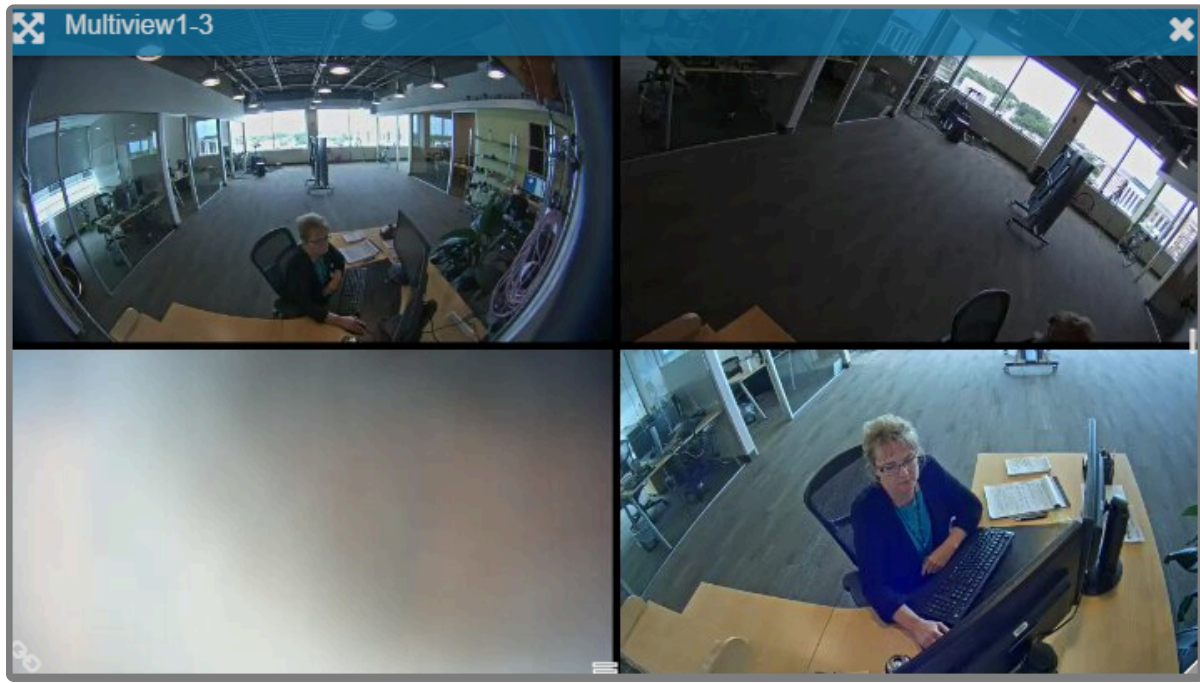
In the example below, a multi-lens camera is added to the system 3 times. Each has a similar (but different) camera name, and each has a different primary stream selected.

Same Camera, Different Names

Different Streams

| Camera Name | Primary Stream | Stream Name | Configuration |
|--------------|----------------|----------------|------------------------|
| Multiview1-1 | profile_1 h264 | profile_1 h264 | 1408x1056, 15fps, JPEG |
| Multiview1-1 | profile_1 h264 | profile_1 jpeg | 1280x720, 15fps, JPEG |
| Multiview1-1 | profile_1 h264 | profile_2 h264 | 1920x1080, 15fps, H264 |
| Multiview1-2 | profile_1 jpeg | profile_1 h264 | 1408x1056, 15fps, JPEG |
| Multiview1-2 | profile_1 jpeg | profile_1 jpeg | 1280x720, 15fps, JPEG |
| Multiview1-2 | profile_1 jpeg | profile_2 h264 | 1920x1080, 15fps, H264 |
| Multiview1-3 | profile_2 h264 | profile_1 h264 | 1408x1056, 15fps, JPEG |
| Multiview1-3 | profile_2 h264 | profile_1 jpeg | 1280x720, 15fps, JPEG |
| Multiview1-3 | profile_2 h264 | profile_2 h264 | 1920x1080, 15fps, H264 |

If you find a Camera Stream profile called “multiview” (or something similar) in the list of stream names, select that as the Primary stream if you want to view/record all of the views as one stream. When you add this Player to the *Stage*, it will display all available views as one Player.



Recovering a Camera

If someone edits camera settings (including the IP address) directly at the camera, Orchid Core VMS may be unaware of the new settings and may lose its connection with the camera. For Orchid Core VMS versions 2.2.2 and above, Orchid Fusion VMS provides access to the *Recover Camera* feature.

1. To recover a camera, click the name of the camera you want to recover from the list of registered cameras on the *Camera Configuration* screen.
2. Press the **Recover Camera** button at the bottom of the expanded camera entry. The *Connection Settings* screen will appear.

Connection Settings [X]

Use this to recover and synchronize your camera when:

- The camera's IP address has changed
- The camera's settings have been changed outside of Orchid Core VMS

ONVIF Discovery URL
http://192.168.100.39/onvif/device_service

Credentials

Username Password

CANCEL RECOVER CAMERA

3. To refresh the camera settings, simply enter the credentials for the camera, then press the **Recover Camera** button. (The software will pull the camera settings directly from the camera.)
4. To reconnect with the camera, replace the camera's IP address (with the new one) in the camera's URL field. Then enter the credentials for the camera and press the **Recover Camera** button. (The software will reconnect with the camera at its new IP address, and will also pull the camera settings from the camera.)

Removing Cameras

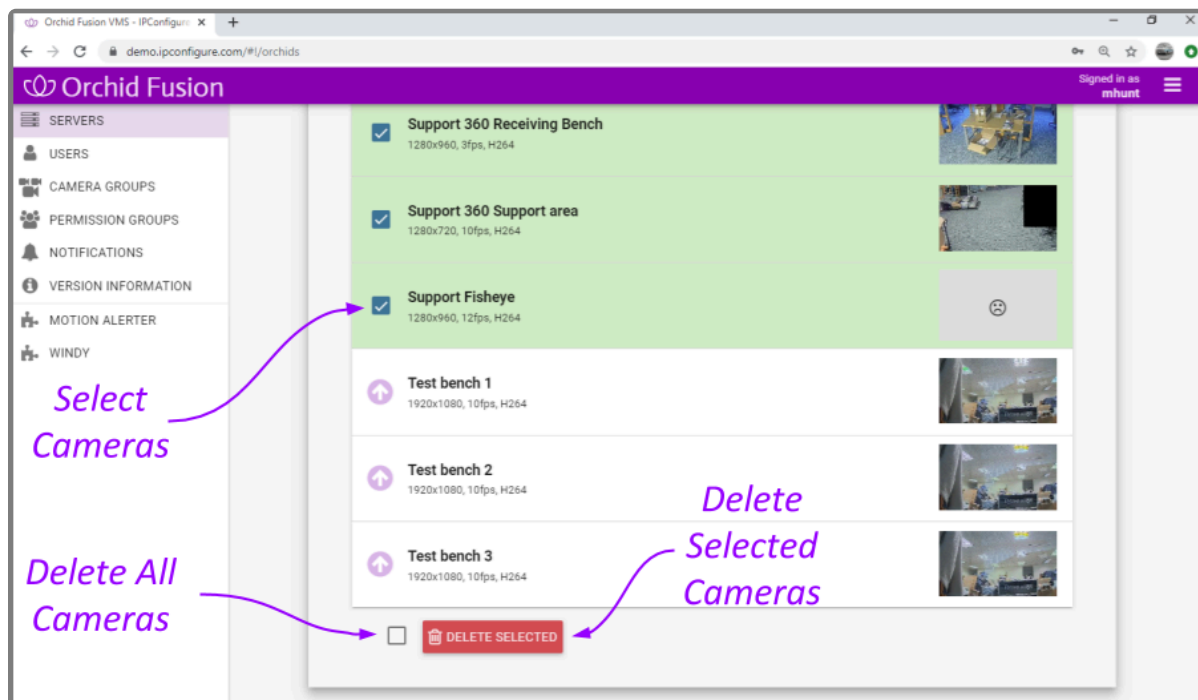
Removing a Single Camera

1. To remove a single camera, do either of the following:
 - a. From the list of registered cameras on the server's *Cameras* tab, position the cursor over the arrow to the left of the camera you want to delete; the arrow will change into a checkbox. Mark the checkbox, then press the **Delete Selected** button at the bottom of the list. The software will ask you to confirm that you want to delete the camera. Press **Delete** to confirm. Once a camera is removed, it is no longer available for viewing, playback, recording, export, etc. This cannot be undone.
 - b. From the camera's settings screen, click the **Delete Camera** button (located at the bottom of the screen). The software will ask you to confirm that you want to delete the camera. Press **Delete** to confirm. Removal may take a few moments.

Removing Multiple Cameras

Multiple cameras can be removed from Orchid Core VMS at the same time, if needed.

1. From the list of registered cameras on the server's *Cameras* tab, first select the cameras you want to delete. (For each camera you want to delete, position the cursor over the arrow to the left of the camera name; the arrow will change into a checkbox. Mark the checkbox.)



2. Once your selections are complete, click on the **Delete Selected** button at the bottom of the list. The software will ask you to confirm that you want to delete the cameras. Press the **Delete** button to

confirm. Once the cameras are removed, they are no longer available for viewing, playback, recording, export, etc. This cannot be undone.

3. To delete ALL of the cameras in the list of registered cameras, mark the *Delete Selected* checkbox at the bottom of the list, then click on the **Delete Selected** button. The software will ask you to confirm that you want to delete the cameras. Press the **Delete** button to confirm. Once the cameras are removed, they are no longer available for viewing, playback, recording, export, etc. This cannot be undone.

The Users Tab

The Users tab allows Administrators to manage users registered to the selected Orchid Core VMS. Each Orchid Core VMS is configured with one administrator user by default; this user is created during installation and cannot be removed. Additional users may be created with varying levels of access (determined by each user's role).

About Orchid Core VMS User Roles

There are four different user roles in Orchid Core VMS, each with a different level of access:

- **Live Viewer:** A *Live Viewer* is only able to view live video.
- **Viewer:** A *Viewer* is able to view live and recorded video.
- **Manager:** A *Manager* can view live and recorded video, export video, view System Reports, and control PTZ Players. (The Manager is not able to create or manage users or cameras.)
- **Administrator:** An *Administrator* is able to do everything within Orchid Core VMS, including activating Orchid Core VMS, adding new users and cameras, resetting passwords, and viewing System Reports.

User roles are set when you create new users, however, an Administrator may change the role of an existing user by clicking the **Edit** pencil icon. Find out more about editing users later in this section.

Access the Orchid Core VMS Users List

1. Sign in to Orchid Fusion VMS as an Administrator.
2. Open the *System Menu* in the top-right corner of the screen and select *Servers*.
3. Click on (and expand) the server you want to work with. Then click on the *Users* tab.

The Orchid Core VMS Users screen lists all of the users that have been added, and their assigned roles. Descriptions of the four roles appear at the bottom of the screen.

Orchid Fusion VMS - IPConfigure x

orchid-burn-linux-bravo.ipconfigure.com/#/orchids

Signed in as admin

SERVICES

USERS

CAMERA GROUPS

PERMISSION GROUPS

NOTIFICATIONS

VERSION INFORMATION

Servers 1-10 of 11

2.10.0 orchid-burn-linux-bravo
http://orchid-burn-linux-bravo

8/8 cameras online

ADD USER

admin Administrator

NewManager Manager

newuser Manager

Orchid Core VMS Roles

A Live Viewer can only stream live video.

A Viewer can stream live video and review archived video.

Annotations:

- Add an Orchid Core VMS User* (points to + ADD USER)
- Current Users* (points to user list)
- Locked Admin User* (points to lock icon for admin)
- Edit User* (points to edit icon)
- Delete User* (points to delete icon)
- Circled Icons = Admin Tab Scrolling* (points to left and right arrow icons)

Adding New Orchid Users



This is the **Add** icon.

1. Click the **Add User** button in the top-right corner of the Orchid Core VMS Users screen.
2. A *New User* screen will open. Enter the username you would like to set for the new user in the *Username* field.

New User for IPConfigure Office

Username * *Enter Username*
TJones

Role *Select User Role*
Viewer

Password *

Confirm Password *

☐ Create on all Orchid Core VMS servers *Add User to all Orchid Servers*

CANCEL ADD USER

3. Select a role for the new user from the *Role* drop-down list. (The role can be updated by an administrator at any time.) Available roles for Orchid Core VMS server users are listed at the bottom of the *Users* screen.
4. Enter the password for the new user into the two fields labeled *Password* and *Confirm Password*.
5. Mark the *Create on all Orchid Core VMS Servers* checkbox if you want this new user to have access to all of the Orchid Core VMS servers registered in Orchid Fusion VMS.
6. Click the **Add User** button at the bottom of the screen to create the new Orchid Core VMS user. The new user will now appear in the *Users* list for this server (or for all of the Orchid Core VMS servers, if selected in step 5).

Editing Existing Orchid Users



This is the **Edit** pencil icon.

Nothing is set in stone for Orchid Core VMS users and almost all of the user settings can be updated, as needed. The only user that cannot be completely edited is the default admin user (which has a **Lock** icon in place of the **Trash Can** icon). While the password can be updated, the username and role cannot be changed.

1. To edit a user, click the **Edit** pencil icon to the right of the user you want to update. The *User* screen will open.

TJones from IPConfigure Office

Username * *Edit Any Available Field* TJones Role Viewer

Password Confirm Password

☐ Replicate changes across all Orchid Core VMS servers *Make Change on all Orchid Servers*

CANCEL UPDATE USER

2. Edit any of the available fields, as needed.
3. If this user exists on multiple Orchid Core VMS servers, mark the *Replicate changes across all Orchid Core VMS servers* checkbox if you want your changes to cascade to all of those servers. (For example, you could push a password change to all the servers.)
4. If you want to create this user on all of the other registered Orchid Core VMS servers, mark the *Replicate changes across all Orchid Core VMS servers* checkbox and the *Also create new users* checkbox. You will be required to enter an administrator password.

TJones from IPConfigure Office

Username * TJones *Edit Any Available Field* Role Viewer

Password * Confirm Password

☒ Replicate changes across all Orchid Core VMS servers ☒ Also create new users

Save Change for this User on all Orchid Servers *Save Change for this User and Add User Across all Orchid Servers* CANCEL UPDATE USER

5. Click the **Update User** button. If you didn't mark the *Replicate* checkbox, all of the changes will be saved. If you did mark the *Replicate* checkbox, a summary of changes will appear.

Replication Strategy for TJones

The following changes will be applied:

| Server | Existing User Details | Action |
|--|-----------------------|----------------------|
| <input checked="" type="checkbox"/> Testing Server | | User will be added |
| <input checked="" type="checkbox"/> IPConfigure Office | TJones Viewer | User will be updated |

User Info Will be Added or Updated Where Appropriate

CANCEL REPLICATE USER

6. Click the **Replicate User** button to implement the changes.



If you try to change your own password, Orchid Core VMS will automatically sign you out.

Deleting Existing Orchid Users



This is the **Delete / Trash Can** icon.

1. To delete an existing Orchid Core VMS user, click the **Trash Can** icon to the right of the username.
2. Orchid Fusion VMS will ask you to confirm that you would like to remove the user. (If you are deleting an Orchid Core VMS user that exists on multiple Orchid Core VMS servers, you may delete that user from all of the servers by marking the *Delete user on all Orchid Core VMS servers* checkbox.)
3. Click the **Delete User** button to confirm you want the user removed.
 - a. If you did not mark the checkbox in step 2, the user will be erased right away.
 - b. If you marked the checkbox in step 2, you will receive a summary of the servers from which the user will be removed. Click the **Delete User** button again to confirm.

The Retention Policy Tab

The *Retention Policy* feature in Orchid Core VMS allows Administrators to manage video archive retention on a stream by stream basis as well as review current and projected disk utilization.

About Video File Retention

To maintain a system for video file retention, Orchid Core VMS determines how much disk space is available on the server. By default, Orchid Core VMS will retain videos until your hard disk is 85% full (the *Cleaner Threshold*), at which point it will begin deleting the oldest videos to make room for new videos. The available video storage space is divided among all the cameras that have been added to Orchid Core VMS based on equal days of retention; however, based on individual camera settings, this doesn't mean that each camera will require the same amount of server storage space.

If no camera-specific retention settings have been entered, Orchid Core VMS will grant each camera the same number of days of video retention. Since each camera may have different settings (such as recording style, frame rate, etc.), and those settings impact video file size, the amount of space required for the same number of days will vary.

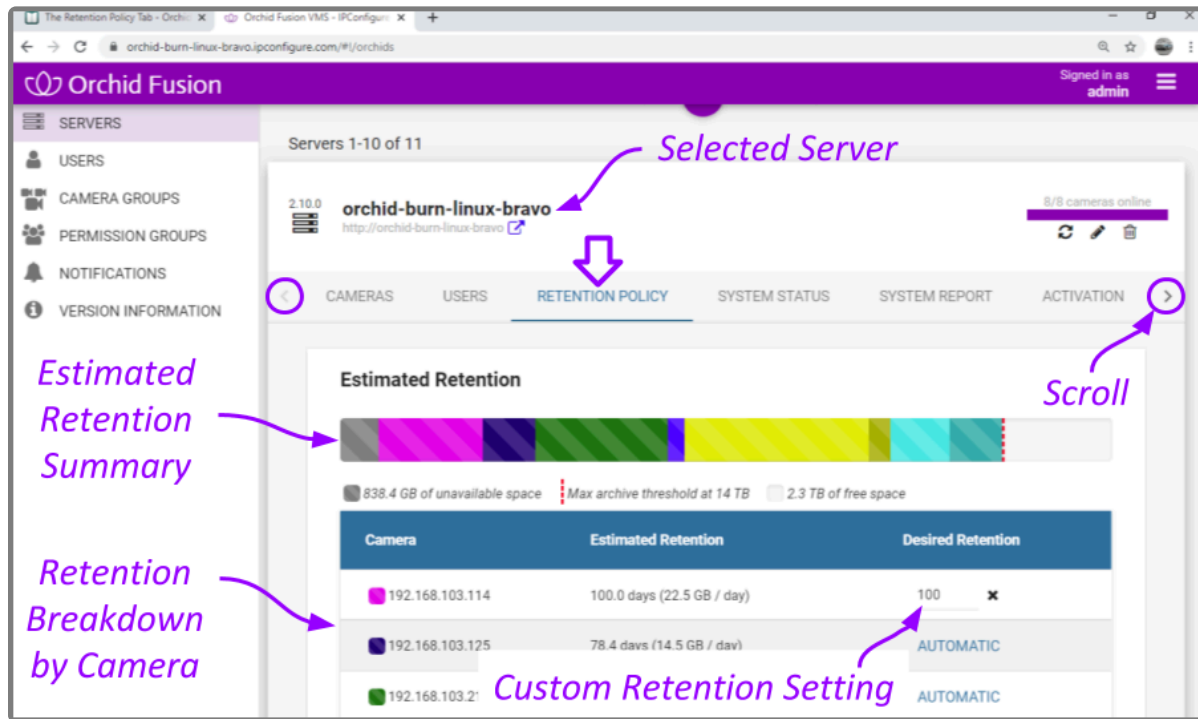
In some applications, there may be cameras for which increased file retention is critical. For these cameras, the Administrator may set specific, minimum retention settings. In these cases, the retention settings for the remaining cameras will be adjusted automatically to share the remaining balance of available storage before the *Cleaner Threshold* is met.

When disk usage reaches the retention limit, Orchid Core VMS will create free space by removing the oldest archives first. The system will ensure, however, that the minimum desired retention settings that have been set are maintained, assuming sufficient disk space is available.

To change the 85% *Cleaner Threshold* setting, use the [Advanced Settings](#) feature.

Accessing the Retention Policy

1. From the *Servers* page, select a server and click on the *Retention Policy* tab.



At the top of the *Retention Policy* tab, Orchid Core VMS displays a summary of estimated server space usage. Use the cursor to hover over the colored regions of the summary graphic to view the estimated server space usage for each camera.

- **Unavailable space:** This space on the disk is marked in grey. It is already in use by other applications and is unavailable to Orchid Core VMS for storing video.
- **Video data:** This space on the disk is marked in various bright colors representing each camera. This space is filled with videos that are managed by Orchid Core VMS. To make space for new video, the oldest videos are continuously and automatically deleted as the *Cleaner Threshold* is reached.
- **Cleaner Threshold:** By default, Orchid Core VMS will attempt to make sure that no more than 85% of your disk space is used. This threshold is marked on the bar by a red dotted line. To change the 85% *Cleaner Threshold* setting, use the [Advanced Settings](#) feature.
- **Free space:** This disk space is not in use by Orchid Core VMS or any other program.

Changing Desired Retention Settings

1. To edit the minimum Desired Retention setting for any given camera, click on the corresponding **Automatic** button.
2. Type in a new setting to represent the number of days of video that will be kept for this camera. The remaining estimated retention will automatically be recalculated for all cameras that do not have a manually specified retention setting.

If your new setting requires more storage than is physically available on your disk, Orchid Core VMS will flag an error (as pictured below). To fix this, you'll need to reduce the desired retention to an acceptable level or add more available storage.

Estimated Retention

Summary and Warning

Your current configuration is not possible given your maximum archive threshold. You can save these changes, but you must proceed at your own risk.

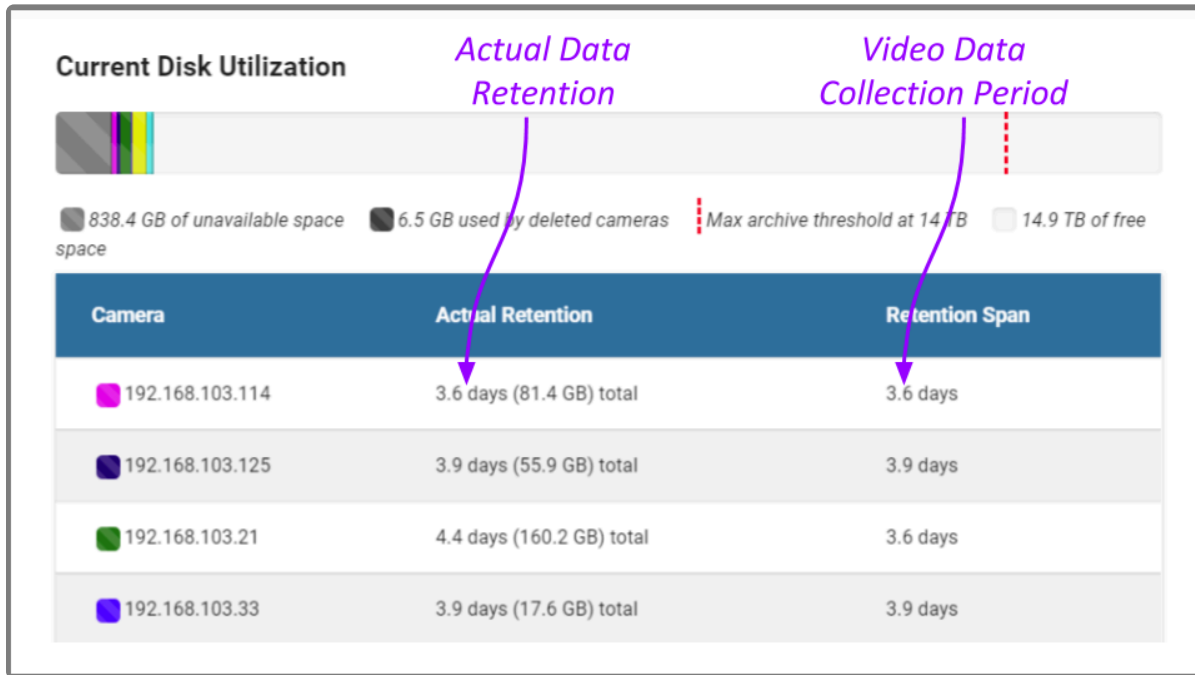
| Camera | Estimated Retention | Desired Retention |
|-----------------|----------------------------|-------------------|
| 192.168.103.114 | 610.0 days (22.5 GB / day) | 610 |
| 192.168.103.125 | 0.0 days (14.5 GB / day) | AUTOMATIC |
| 192.168.103.21 | 0.0 days (36.8 GB / day) | |
| 192.168.103.33 | 0.0 days (4.6 GB / day) | AUTOMATIC |

Some Custom Settings Cannot Be Supported

- Repeat steps 1 and 2 for each camera that requires minimum retention settings.
- To undo the last setting you changed, press the **Cancel Changes** button at the bottom of the list. (You can only use this feature before you save the new configuration.)
- Once all settings have been entered, press the **Save Configuration** button at the bottom of the list.
- To quickly change any setting back to *Automatic*, click the **X** button next to the setting and then press the **Save Configuration** button.

Reviewing the Current Disk Utilization

The bottom half of the *Retention Policy* tab displays how the server space is actually being used. Use the cursor to hover over the colored regions of the summary graphic to view the actual server space usage for each camera.



The *Current Disk Utilization* section displays a summary of actual server space usage which includes unavailable space (space used by the operating system and other files), space occupied by video files, and a buffer of free space. It then provides a usage breakdown by camera. This information can be very helpful in diagnosing retention issues.

The *Actual Retention* column shows how many days worth of video is being stored per camera. It also includes how much disk space each camera is consuming. The *Retention Span* column shows the number of days over which the video files have been recorded. This data point is especially helpful for those cameras that are set to record only when motion is detected. For example, let's say that one of the cameras has an actual retention reading that is 0.5 days (compared to the others which have 3.6 or more). The *Retention Span* should confirm that the system has been monitoring the camera for about the same amount of time as the other cameras.

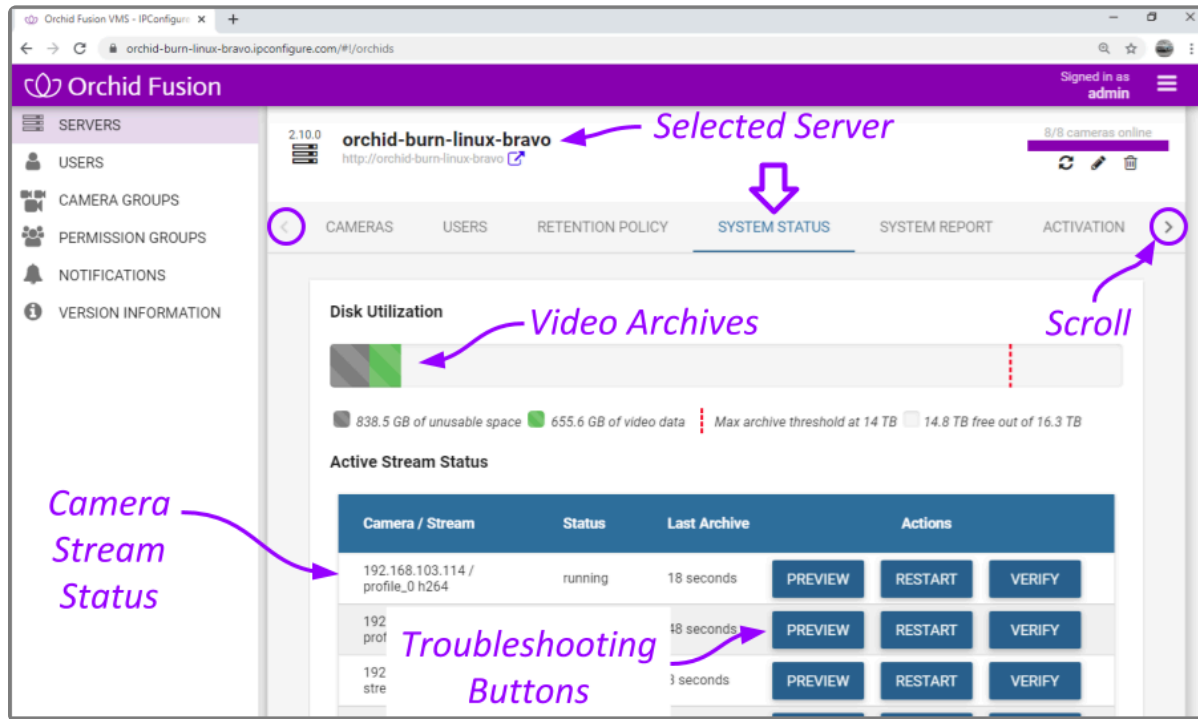
You may also use this breakdown to determine if any of the cameras are using excessive disk space. If this is the case, you can then take steps to re-configure the camera (by changing either the minimum desired retention settings or the camera stream settings) and fix the problem.

The System Status Tab

The *System Status* tab provides an overview of the current disk utilization of the video archives folder and the active streams running in Orchid Core VMS.

Accessing the System Status Report

- Once you access the *Servers* page, select a server and click on the *System Status* tab.



The *Disk Utilization* section summarizes how the server space is being used. If the overall amount of total disk space appears low, this may indicate that your recording drive(s) have gone offline and Orchid Core VMS is recording to some other location.

- **Unavailable space:** This space on the disk is marked in grey and is already in use by other applications; it is unavailable to Orchid Core VMS for storing video.
- **Video data:** This space on the disk is marked in green. This space is filled with videos that are managed by Orchid Core VMS. To make space for new video, the oldest videos are automatically deleted as the *Cleaner Threshold* is reached.
- **Cleaner threshold:** By default, Orchid Core VMS will attempt to make sure that no more than 85% of your disk space is used. This threshold is marked on the bar by a red dotted line. To change the 85% *Cleaner Threshold* setting, use the [Advanced Settings](#) feature.
- **Free space:** This disk space is not in use by Orchid Core VMS or any other program.

By default, the video archives folder can be found in the following locations:

In Linux: /orchives

In Windows: C:\orchives

To change the location of the archives folder, please refer to the *Changing the Orchid Core VMS Archives Storage Location* section in the [Orchid Core VMS Installation Guide](#).

Reviewing the Active Stream Status

The *Active Stream Status* section of the *System Status* tab shows a list of all the active camera streams in Orchid Core VMS, their current status, and how long ago the last archive was saved for that stream. A stream can have the following statuses:

- **Running:** The stream is currently active and running properly without any errors. It is actively recording and saving video (if configured to do so).
- **Restarting:** The stream is restarting automatically and should be active again within a few seconds.
- **Idle:** The camera is not responding after being restarted by Orchid Core VMS multiple times and the camera status should be manually verified.
- **Stopping:** The camera stream has been shut down and is in the process of writing the video file. (This will typically happen because another stream has been selected as the primary stream.)

The *Last Archive* field will typically display the amount of time that has passed since the last archive was saved. If Orchid Core VMS has never saved an archive for the camera stream, the software will display *Never* in the *Last Archive* column. Orchid Core VMS writes video archives every minute, so any camera whose *Last Archive* is more than a minute old will be flagged in red, as this indicates video may not be recording.

Troubleshooting the Camera Stream Status

If there are any issues with the streams, you can troubleshoot the issue within Orchid Core VMS by using the **Preview**, **Restart**, and **Verify** buttons:

- **Preview:** View a live feed of the camera stream. If you are able to see moving video from the camera's feed, then the server and the camera are properly connected.
- **Restart:** Closes and restarts the camera stream. You can then use the *Preview* button to verify that Orchid Core VMS is receiving video from the camera stream without navigating back to the *Stage*.
- **Verify:** Pings the camera and confirms whether or not Orchid Core VMS can communicate with the camera successfully. This button will turn green after a successful validation. The button will turn red if the Orchid Core VMS server is unable to communicate with the camera. (If the ping command is unsuccessful, the camera's IP address may have been changed directly at the camera. If this is the case, obtain the new IP address and use the *Recover Camera* feature to reconnect.)

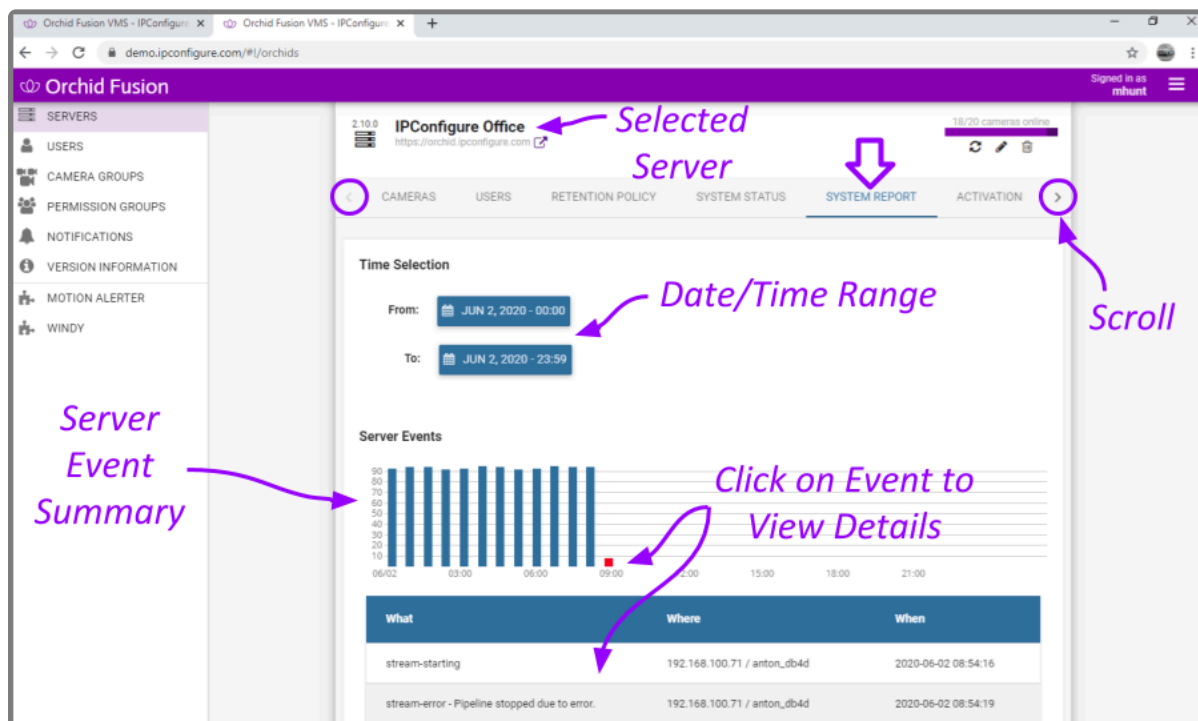
(Please refer to the [Advanced Topics](#) section for additional help.)

The System Report Tab

The *System Report* tab allows Administrators to view various types of events (such as camera streams starting and stopping) and camera stream statistics during a specified time period. This report also provides access to the Orchid Core VMS system log.

Accessing the System Report

1. From the *Servers* screen, select a server and click on the *System Report* tab.



Working with the Server Events and Stream Statistics

By default, the *System Report* will provide a report for the current date (from 12:00 AM to 11:59 PM).

1. To select a new date range for the report, use the **From** and **To** buttons to select the new dates/times for the report in the pop-up calendar and then press the **Go** button. As soon as new dates are chosen, the report will update the *Server Events* and *Stream Statistics* sections.

The *Server Events* graph will display the date and time along the x-axis and the number of events that occurred on the y-axis. For each time period on the *Server Events* graph, a vertical bar will appear if at least one event occurred during that time frame.

Server events include the following:

- **Start:** The Orchid Core VMS server was started. (System provides the time.)
- **Stop:** The Orchid Core VMS server was stopped. (System provides the time.)
- **License Changed:** The Orchid Core VMS license has been added, removed, or updated.
- **Entered Degraded State:** The Orchid Core VMS server has entered a state in which it will not operate normally. No new video will be recorded and no existing video will be deleted. (Refer to the [Orchid Core VMS Administrator Guide](#) for more details.)
- **Trusted Issuer Created:** This indicates that Orchid Fusion VMS has registered (added) this Orchid Core VMS server.
- **Trusted Issuer Removed:** This indicates that the Orchid Fusion VMS server has detached from this Orchid Core VMS server.

Stream events include the following:

- **Stream-starting:** The stream was started. (System provides the stream name and time.)
 - **Stream-error:** The stream posted an error. (System provides the stream name, time, and error message.)
 - **Failover Failed:** The stream encountered a storage device failure. (System provides the stream name and time.)
2. To view specific details on server events, click on any of the vertical bars. (The selected bar will appear in red.) The server event details for the selected time period will appear in a table beneath the graph.
 3. If there are multiple events within a selected time period, you may double-click on the vertical bar to zoom in for more detail on the time frame.

The *Stream Statistics* section lists each of the active camera streams in Orchid Core VMS. For each stream, Orchid Core VMS will show how many megabytes of video was recorded, the length of the recorded video, and how much of the recorded video contained motion.

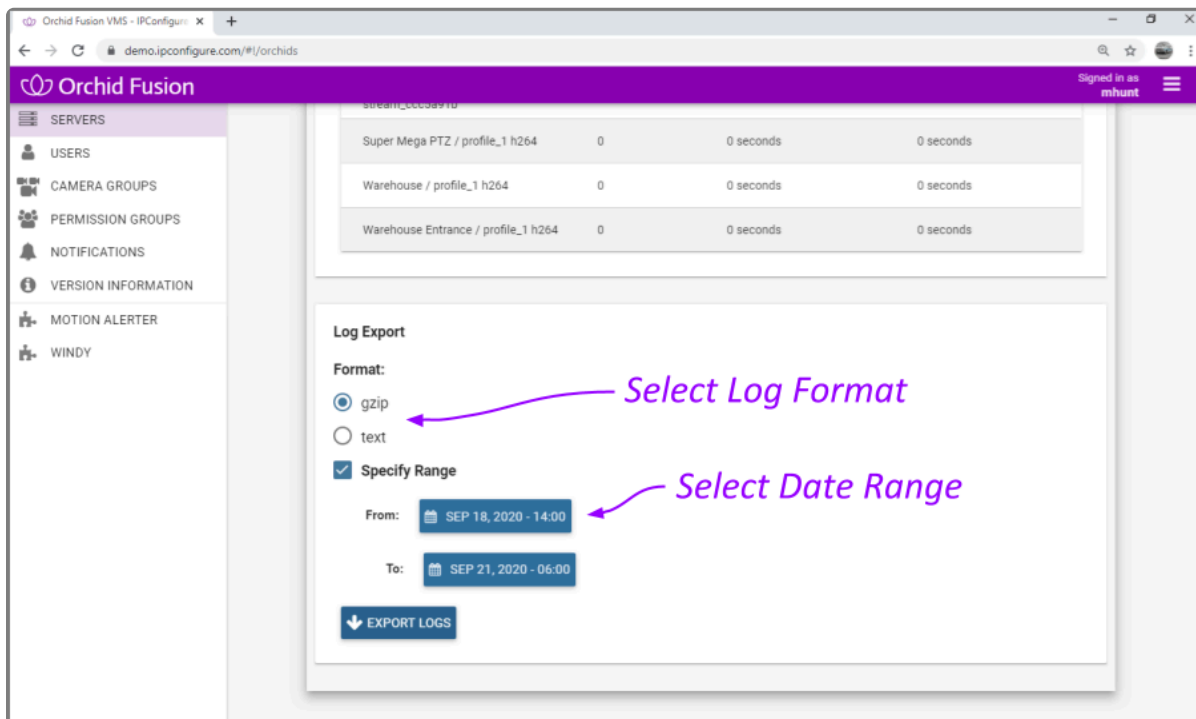
Stream Statistics *Displays Statistics for Each Active Camera Stream*

| Camera / Stream | MB Recorded | Video Recorded | Motion Recorded |
|---------------------------------|-------------|-------------------------------------|-------------------------------------|
| 192.168.100.44 / profile_1 jpeg | 2,922 | 8 hours, 56 minutes, and 12 seconds | 5 seconds |
| 192.168.100.47 / profile_0 h264 | 2,421 | 8 hours, 55 minutes, and 21 seconds | 2 minutes, and 43 seconds |
| 192.168.100.49 / anton_db4d | 281 | 8 hours, 54 minutes, and 53 seconds | 8 hours, 54 minutes, and 33 seconds |
| 192.168.100.51 / profile_1 h264 | 36 | 1 minute, and 3 seconds | 1 minute, and 3 seconds |

Working with the Log Export

The bottom half of the *System Report* includes the *Log Export* feature. This feature allows you to view and export Orchid Core VMS system logs into a compressed file or plain text. These logs contain advanced troubleshooting information and are useful when trying to diagnose issues with Orchid Core VMS.

✿ The *Timeline Bar* displays the time on the client machine while system reports and logs are based on the server time. If there is a discrepancy, and you need to view the time difference, click the **Clock** icon (that would appear next to the software name in the Orchid Fusion VMS screen header).



1. Select the format you wish to use for the log export:
 - a. **gzip**: This option will download the latest log from Orchid Core VMS into a compressed file, allowing it to be viewed on other computers. The gzip-compressed file can be extracted using the gunzip command on Linux or a utility such as 7-zip on Windows.
 - b. **text**: This option will display the log within the browser without downloading any files. This file is likely to be very large when a narrow date range is not specified.
2. To specify a date/time range for the log, mark the *Specify Range* checkbox. Then use the **From** and **To** buttons to select the start and end dates/times.
3. Once your selections are complete, click the **Export Logs** button.

The Activation Tab

The *Activation* tab allows you to review current license information for the Orchid Core VMS server, and provides a means to add or update a license.

About Orchid Core VMS Licenses

There are three types of licenses available for the Orchid Core VMS software: Trial, Core, and Fusion. Each license type offers certain capabilities and restrictions.

- **Trial License**
 - When installed on a Windows x86-64 server or a Linux x86-64 server, the Trial license will allow up to four cameras, and up to 128GB of video archives. The Trial version can also be linked to Orchid Fusion VMS.
 - When installed on a Linux ARM embedded server, the Trial license will allow unlimited cameras and archives, but the Trial version cannot be linked to Orchid Fusion VMS.
- **Core License**
 - The Core license offers unlimited archives, but will limit the number of cameras allowed and cannot be linked to Orchid Fusion VMS.
- **Fusion License (for Orchid Core VMS)**
 - The Fusion license will limit the number of cameras allowed, but offers unlimited archives and can be linked to Orchid Fusion VMS.

Accessing the Activation Tab

1. Once you access the *Servers* screen, select a server and click on the *Activation* tab.

The screenshot displays the Orchid Fusion VMS Administrator interface. The left sidebar contains navigation links: SERVERS, USERS, CAMERA GROUPS, PERMISSION GROUPS, NOTIFICATIONS, VERSION INFORMATION, MOTION ALERTER, and WINDY. The main content area shows the 'Activation' page for a selected server. The page header includes 'Servers 1-1 of 1' and a '+ ADD ORCHID CORE VMS' button. The 'Activation' page displays the 'Orchid Core VMS Activation' status, indicating it has been activated. Below this, a table shows the current license information. The table has columns for Edition, Cameras Licensed, Archive Retention, Support Expiration, and Activation Code. The current license is for 'fusion' edition, with 20/4000 cameras licensed, unlimited archive retention, support expiration on Sunday, September 27, 2020 UTC, and activation code A6CC0-4D300-B8E00-327B3. At the bottom, there are buttons for 'UPDATE LICENSE' and 'REMOVE LICENSE'. The page also includes a 'Thank you!' message.

Selected Server

Current License Info

Scroll

Add, Update, or Remove License

| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|--------------------------------|-------------------------|
| fusion | 20/4000 | Unlimited | Sunday, September 27, 2020 UTC | A6CC0-4D300-B8E00-327B3 |

Thank you!

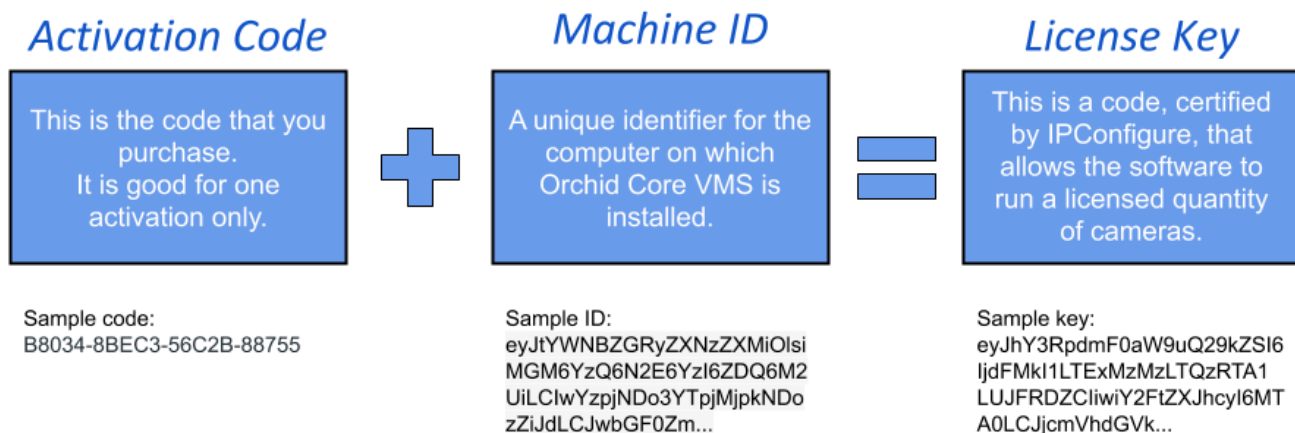
[UPDATE LICENSE](#) [REMOVE LICENSE](#)

Adding a Fusion License to Orchid Core VMS (Quick Method)

+ This is the **Add** icon.

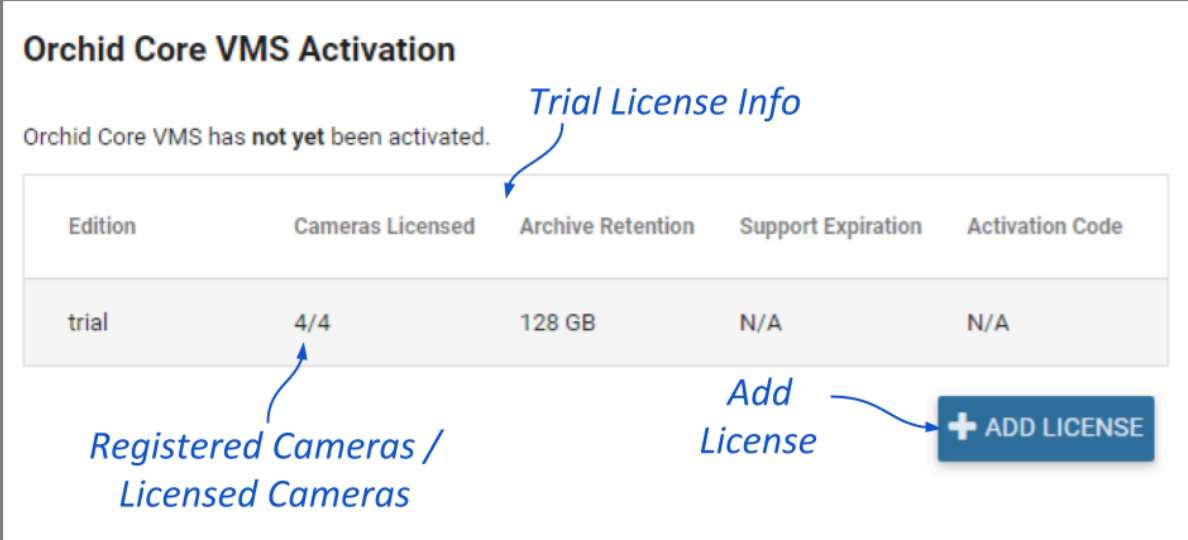
When you purchase a Fusion license for Orchid Core VMS, you will be given an activation code. As indicated in the diagram below, the activation code is just the starting point in the process of adding a license. This code, after being paired with your Machine ID, will generate a license key. With this quick method, most of the work is done behind the scenes.

* This quick method of activation requires that the Orchid Core VMS server has an internet connection.



* When you add, remove, or update a license, a *Licensed Changed* event will appear on the *System Report*.

* If Orchid Core VMS has not yet been activated, the licensing screen will show that Orchid Core VMS is using the Trial Edition.



Orchid Core VMS Activation

Orchid Core VMS has **not yet** been activated.

Trial License Info

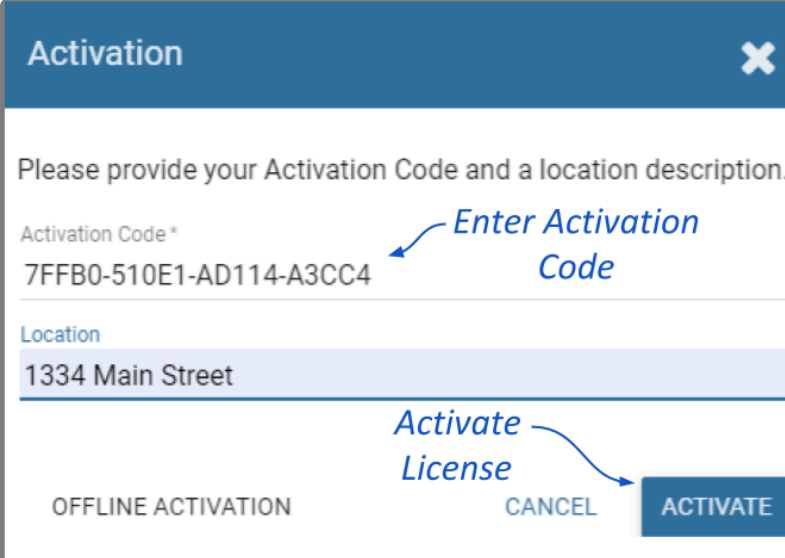
| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|--------------------|-----------------|
| trial | 4/4 | 128 GB | N/A | N/A |

Registered Cameras / Licensed Cameras

Add License

+ ADD LICENSE

1. At the Orchid Core VMS *Activation* screen (above), click the **Add License** button to activate a new license.



Activation ✕

Please provide your Activation Code and a location description.

Activation Code* *Enter Activation Code*
7FFB0-510E1-AD114-A3CC4

Location
1334 Main Street

Activate License

OFFLINE ACTIVATION CANCEL **ACTIVATE**

2. On the *Activation* screen, enter your activation code in the *Activation Code* field. (Sample code shown above.)
3. Then input a location description that specifies where your Orchid Core VMS server will be located. Common location descriptions are a shop name, number, or address.
4. Click the **Activate** button to generate your new Orchid Core VMS license. If the license creation is successful, a screen will appear that indicates success.

Orchid Core VMS Activation



Orchid Core VMS has been activated.

Activation Complete

| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|------------------------------------|-----------------------------|
| fusion | 4/16 | Unlimited | Saturday, February 13, 2021 UTC | 7FFB0-510E1-AD114- A3CC4 |

Thank you!

*Registered Cameras /
Licensed Cameras*

 UPDATE LICENSE  REMOVE LICENSE

Adding a Fusion License to Orchid Core VMS (Offline Method)

Use the Offline Activation method if the Orchid Core VMS server doesn't have an internet connection. This activation method is very similar to the activation method used in older versions of Orchid Core VMS.

Orchid Core VMS Activation

Orchid Core VMS has **not yet** been activated.

| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|--------------------|-----------------|
| trial | 4/4 | 128 GB | N/A | N/A |

Trial License Info

Registered Cameras / Licensed Cameras

Add License

+ ADD LICENSE

1. At the Orchid Core VMS *Activation* screen (above), click the **Add License** button to activate a new license.

Activation ✕

Please provide your Activation Code and a location description.

Activation Code *

XXXXXX-XXXXXX-XXXXXX-XXXXXX

Location

Store #12345 or Beach house

Click Offline Activation

OFFLINE ACTIVATION **CANCEL** **ACTIVATE**

- At the *Activation* screen, click the **Offline Activation** button.

Activation Instructions

To activate Orchid Core VMS, access [the licensing portal](#). You will need your Machine ID (shown below) to generate a license key.

Copy Machine ID

Machine Id

eyJtYWNBZGRyZXNzZXMiOlsimDA6ZmY6N2U6MWU6MmE6N2EiLCI3NDpkZToyYjo4ZDplZDowZSIsImU0OmQ1OjNkOmQ2OjQxOmJmIiwizjA6ZGU6ZjE6YjY6YWQ6MzkiXSwicGxhdGZvcn0iOiJXaW5kb3dzIE5UOjYuMiAoQnVpbGQgOTIwMCK6QU1ENjQiLCJzdG9yYWdlRGV2aWNlIjpb7ImlkIjoiRTIwMzQyMzNIMEw5OFMiLCJwYXRoIjoiXFcxcXC5cXEM6IiwidHlwZSI6IkhERCJ9LCJ2ZXJzaW9uIjoiMS4yIn0=

License Key

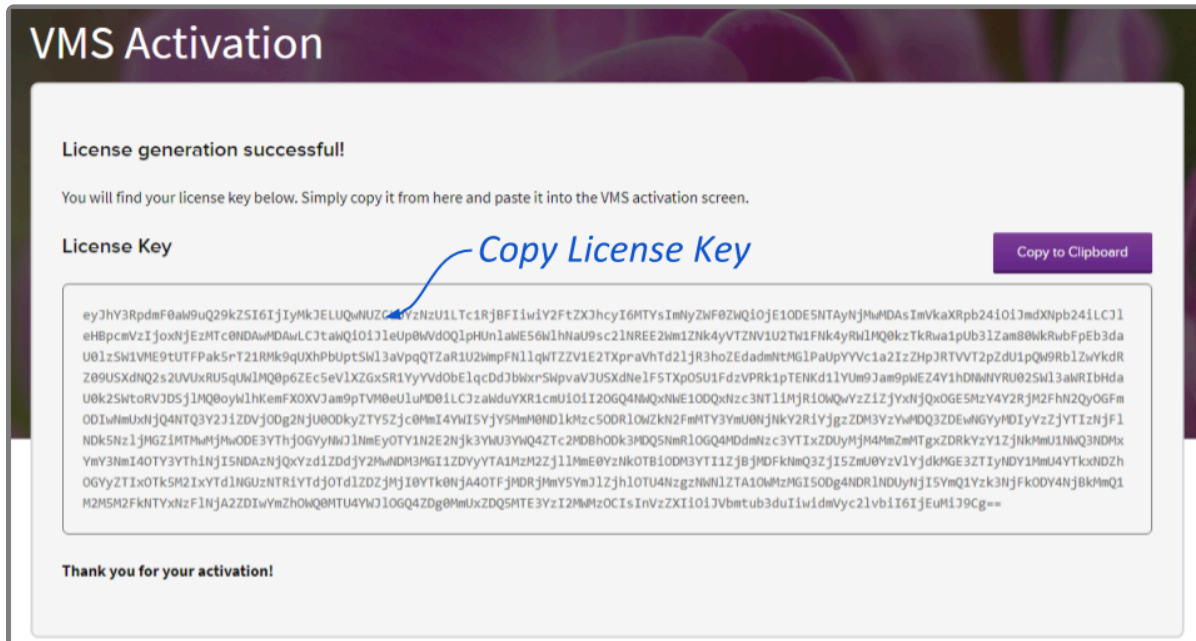
CANCEL **ACTIVATE**

- At the *Activation Instructions* screen, copy your Machine ID. (Click and drag from the beginning to the end of the text string, then click **CTRL+C** to copy it.)
- Click **CTRL_V** to paste the ID into a text file on a USB drive that you can use on a computer with internet access.
- Using a computer with internet access, go to the following site: <https://www.orchidsecurity.com/activation>.

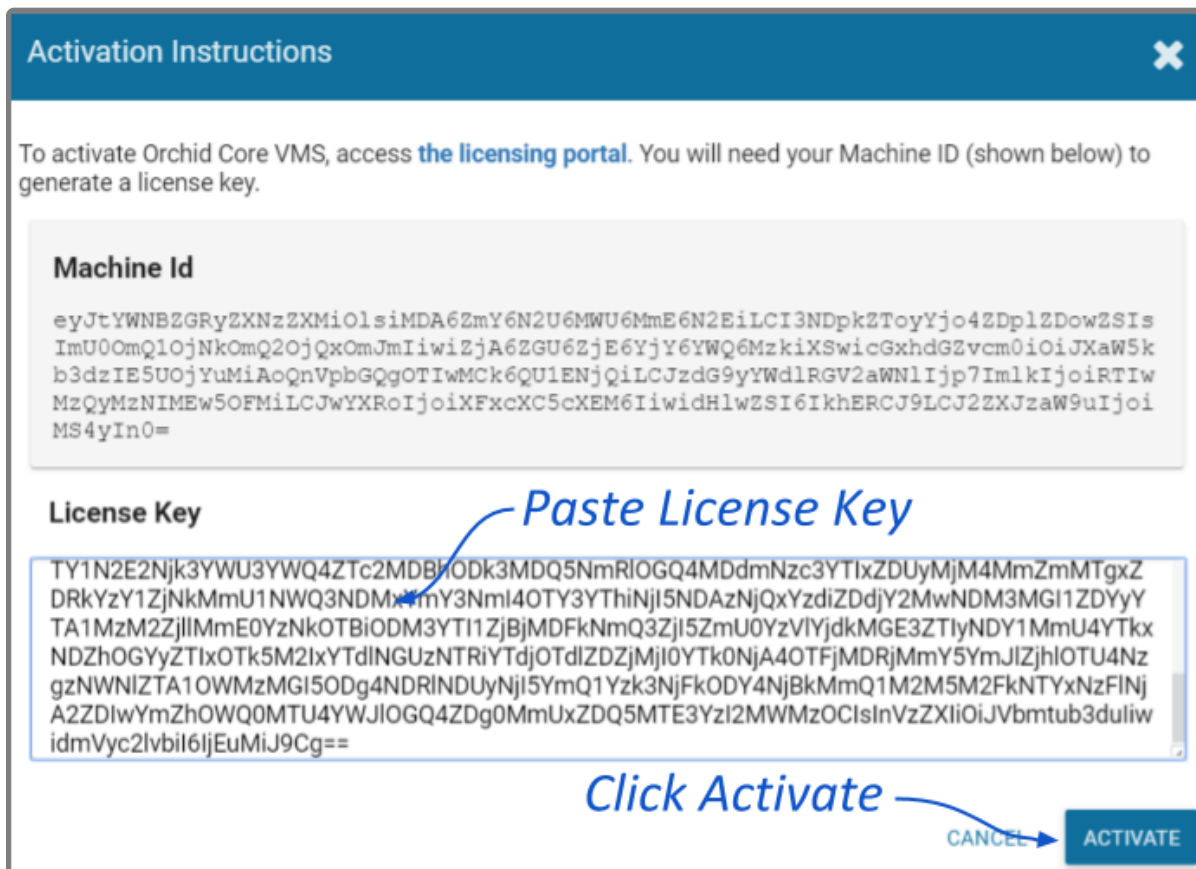
The screenshot shows the 'VMS Activation' interface. At the top, it says 'To generate a license key, enter your Activation Code and Machine ID. Enter a unique Location Description to associate the license key with a physical location.' Below this is a link: 'Looking to use an add-on, upgrade, or renewal code? Click here.' The form has three main sections: 'Activation Code' with a text input field containing '222BD-D05FB-F3755-75F0E' and an annotation 'Enter Activation Code' with an arrow; 'Machine ID' with a text input field containing a long alphanumeric string and an annotation 'Paste Machine ID' with an arrow; and 'Location Description' with a text input field containing 'NFK-Granby St' and an annotation 'Enter Location' with an arrow. At the bottom is a purple button labeled 'Activate License' with an annotation 'Click Activate' with an arrow.

6. Once the *VMS Activation* screen loads, enter the Activation Code into the *Activation Code* field. This code was provided to you when you purchased your Fusion license for Orchid Core VMS. (Sample code shown above.)
7. Paste your Machine ID into the *Machine ID* field.
8. Input a location description that specifies where your Orchid Core VMS server will be located. Common location descriptions are a shop name, number, or address.
9. Click the **Activate License** button to generate your new Orchid Core VMS license. If the license creation is successful, a screen will appear that indicates success and includes a License Key. (The License Key looks like a paragraph of random text.)

✿ If the activation code has already been used for another machine, then the license generation will fail saying “The provided activation code has already been paired with a different machine ID.” If this happens, you’ll need to either purchase a new Activation Code, or submit a ticket to the IPConfigure Technical Support Team.



10. Select the text in the *License Key* field, then click **CTRL-C** to copy the License Key to a text file on a USB drive.
11. Close the *VMS Activation* screen and return to the Orchid Core VMS server.
12. Click into the *License Key* field on the *Activation Instructions* screen. Click **CTRL+V** to paste the text into the field (as pictured below).



13. Click the **Activate** button to activate your new license key. If the activation was successful, you will

see a message at the top of your screen saying “Orchid Core VMS has been activated.”

Orchid Core VMS Activation

Orchid Core VMS has been activated. *Activation Complete*

| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|---------------------------------|-------------------------|
| fusion | 4/16 | Unlimited | Saturday, February 13, 2021 UTC | EF778-28206-A2082-3FB5D |

Thank you!

Registered Cameras / Licensed Cameras

[UPDATE LICENSE](#) [REMOVE LICENSE](#)

The Edition, Cameras Licensed, Archive Retention, and Support Expiration fields will all be updated to match the license you purchased.

Modifying an Existing License (Quick Method)



This is the **Edit** pencil icon.

If you want to add more cameras to the system, or simply extend your support agreement, you will need to modify an existing Orchid Core VMS license.

* A valid support agreement is required to install software updates. If your agreement expires, you will be able to install versions of the software that were released before your agreement expired, but you will not be able to install new software updates. (If you attempt to install software that was released after your support expires, your Orchid Core VMS server will not function properly; contact your IPConfigure sales representative to purchase an upgrade or renewal).

* If you have an expired, time-limited license, Orchid Core VMS will enter a degraded state and will stop recording. (See the *License Errors* topic in the [Orchid Core VMS Administrator Guide](#) for more details.)

* If you add, remove, or update a license, a *Licensed Changed* event will appear on the *System Report*.

1. Once you access the *Servers* screen, select a server and click on the *Activation* tab.



Orchid Core VMS Activation

Orchid Core VMS has been activated.

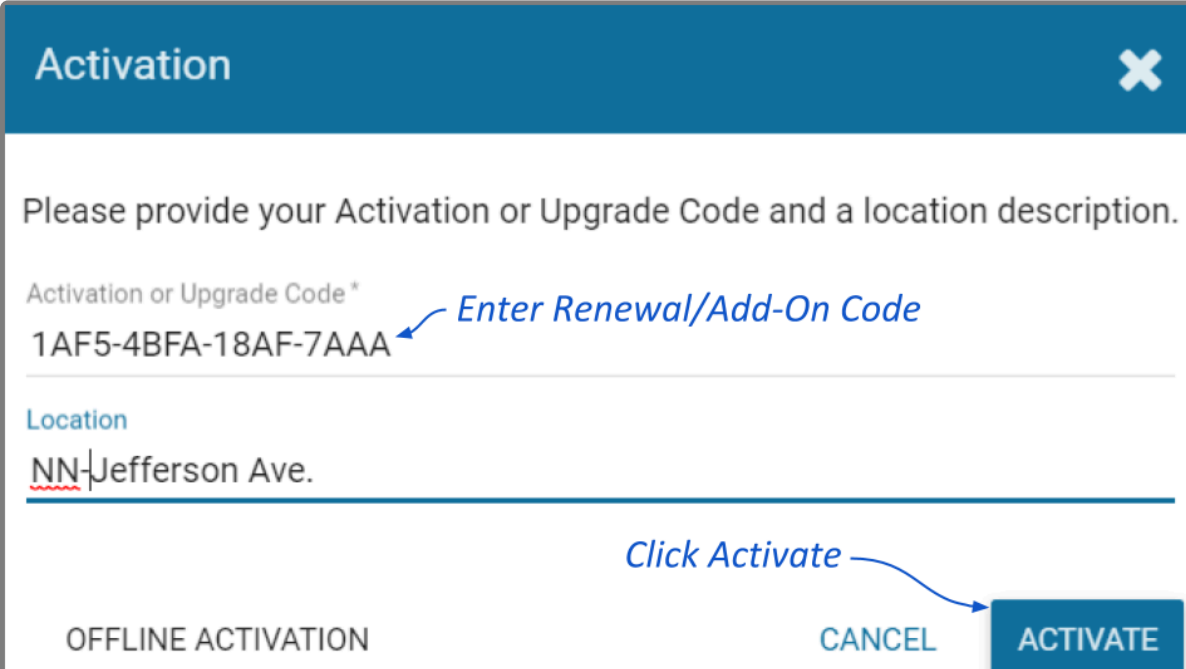
| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|---------------------------------|-------------------------|
| fusion | 4/16 | Unlimited | Saturday, February 13, 2021 UTC | 7FFB0-510E1-AD114-A3CC4 |

Thank you!

Update License



2. When the *Orchid Core VMS Activation* screen appears (above), click the **Update License** button.



Activation

Please provide your Activation or Upgrade Code and a location description.

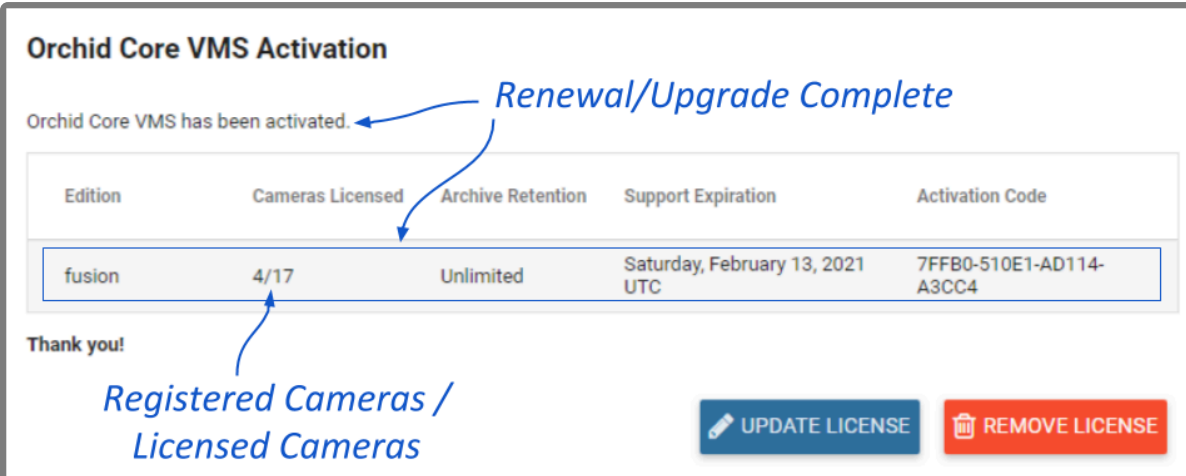
Activation or Upgrade Code *
1AF5-4BFA-18AF-7AAA

Location
NN-Jefferson Ave.

Click Activate

OFFLINE ACTIVATION CANCEL ACTIVATE

- When the *Activation* screen appears, enter your *Renewal/Add-On* code into the *Activation or Upgrade Code* field.
- In the *Location* field, enter a description that specifies where your Orchid Core VMS server will be located. Common location descriptions are a shop name, number, or address.
- Click the **Activate** button. The *Orchid Core VMS Activation* screen should appear and should display updated license information. (In this case, the number of licensed cameras has increased.)



Orchid Core VMS Activation

Orchid Core VMS has been activated.

Renewal/Upgrade Complete

| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|---------------------------------|-------------------------|
| fusion | 4/17 | Unlimited | Saturday, February 13, 2021 UTC | 7FFB0-510E1-AD114-A3CC4 |

Thank you!

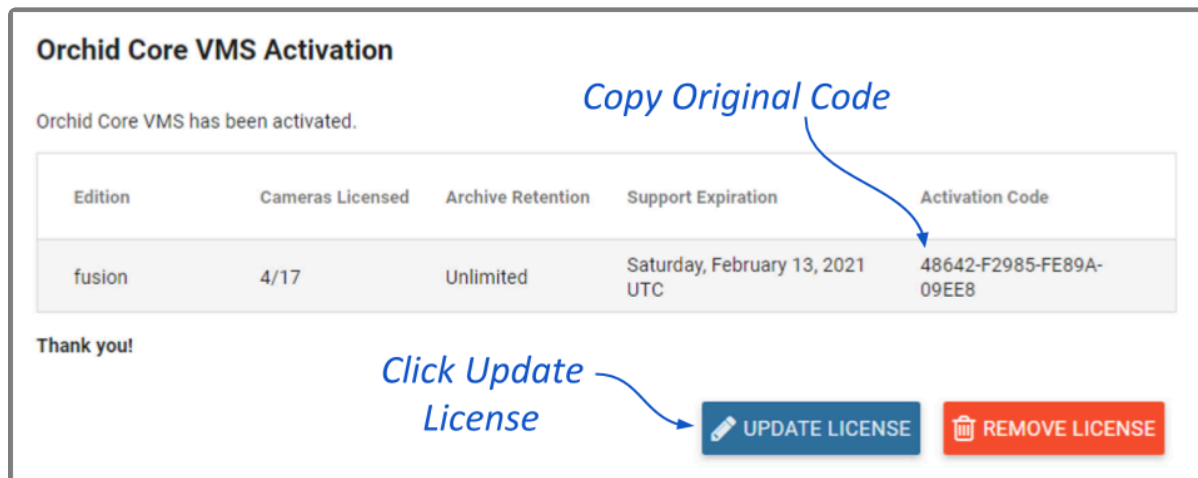
Registered Cameras / Licensed Cameras

UPDATE LICENSE REMOVE LICENSE

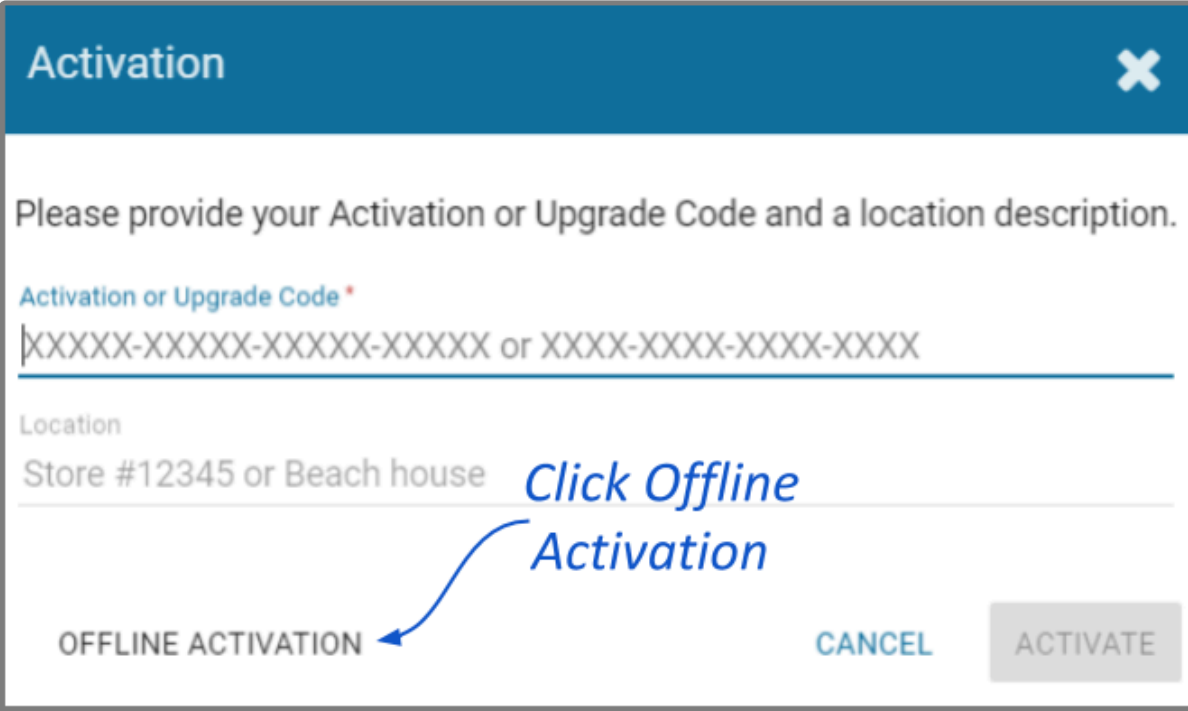
Modifying an Existing License (Offline Method)

Use the Offline renewal/upgrade method if the Orchid Core VMS server doesn't have an internet connection. This renewal method is very similar to the activation method used in older versions of Orchid Core VMS.

1. Once you access the *Servers* screen, select a server and click on the *Activation* tab.



2. When the *Orchid Core VMS Activation* screen appears (above), click and drag over your original activation code to select it, then click **CTRL+C** to copy the code. (You will need this code later.)
3. Open a new text file and click **CTRL_V** to paste the original activation code into the text file.
4. Save this text file on a USB drive that you can use on a computer with internet access.
5. Click the **Update License** button to begin the upgrade/renewal process.



Activation

Please provide your Activation or Upgrade Code and a location description.

Activation or Upgrade Code *

XXXXX-XXXXX-XXXXX-XXXXX or XXXX-XXXX-XXXX-XXXX

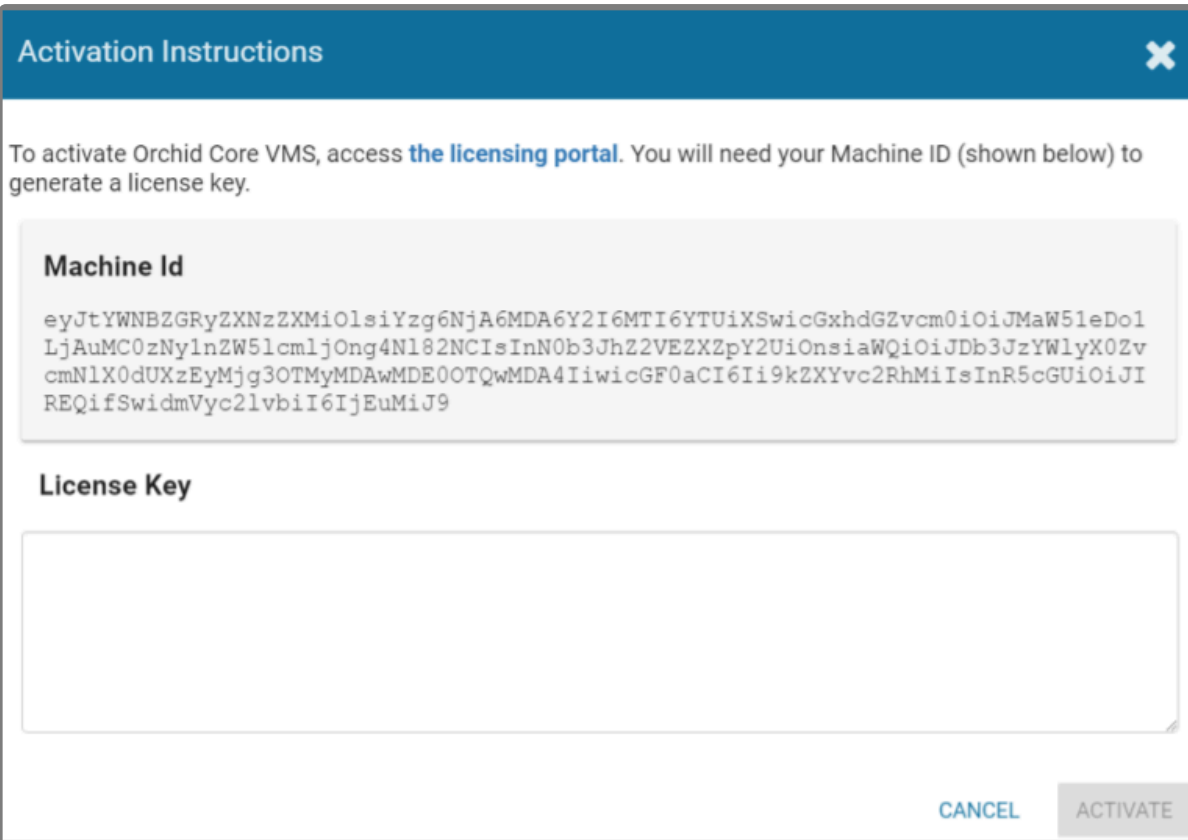
Location

Store #12345 or Beach house

[Click Offline Activation](#)

OFFLINE ACTIVATION CANCEL ACTIVATE

6. On the *Activation* screen, press the **Offline Activation** button.



Activation Instructions

To activate Orchid Core VMS, access [the licensing portal](#). You will need your Machine ID (shown below) to generate a license key.

Machine Id

eyJtYWNBZGRyZXNzZXMiOlsiYzg6NjA6MDA6Y2I6MTI6YTUiXSvicGxhdGZvcn0iOiJMaW5leDo1LjAuMC0zNylnZW5lcmljOng4N182NCIsInN0b3JhZ2VEZXZpY2UiOnsiaWQiOiJDb3JzYWlyX0ZvcmlX0dUXzEyMjg3OTMyMDAwMDE0OTQwMDA4IiwicGF0aCI6Ii9kZXYvc2RhMiIsInR5cGUiOiJIREQifSwidmVyc2lvbiI6IjEuMiJ9

License Key

CANCEL ACTIVATE

7. When the *Activation Instructions* screen appears, this is your cue to take your USB drive and find a computer with internet access. Open a web browser and go to www.orchidsecurity.com/activation. The *VMS Activation* screen will appear.

VMS Activation

To generate a license key, enter your Activation Code and Machine ID. Enter a unique Location Description to associate the license key with a physical location.

[Looking to use an add-on, upgrade, or renewal code? Click here.](#)

Activation Code

Machine ID

Location Description

Activate License

Click for Add-Ons, Upgrades & Renewals

- Click on the link that says: “*Looking to use an add-on, upgrade, or renewal code? Click here.*” The *Renewal/Add-On* screen will appear.

Orchid Core VMS Renewal/Add-On

To use a renewal/add-on code, you will need to enter it, along with your original Activation Code below.

Your original Activation Code can be found in the Activation section of the Orchid Core VMS Configuration page in Orchid Core VMS versions 1.10.0 and later. If you have an older Orchid Core VMS version and don't know your Activation Code, [submit an Orchid helpdesk ticket](#) and we'll look it up for you.

Renewal/Add-On Code

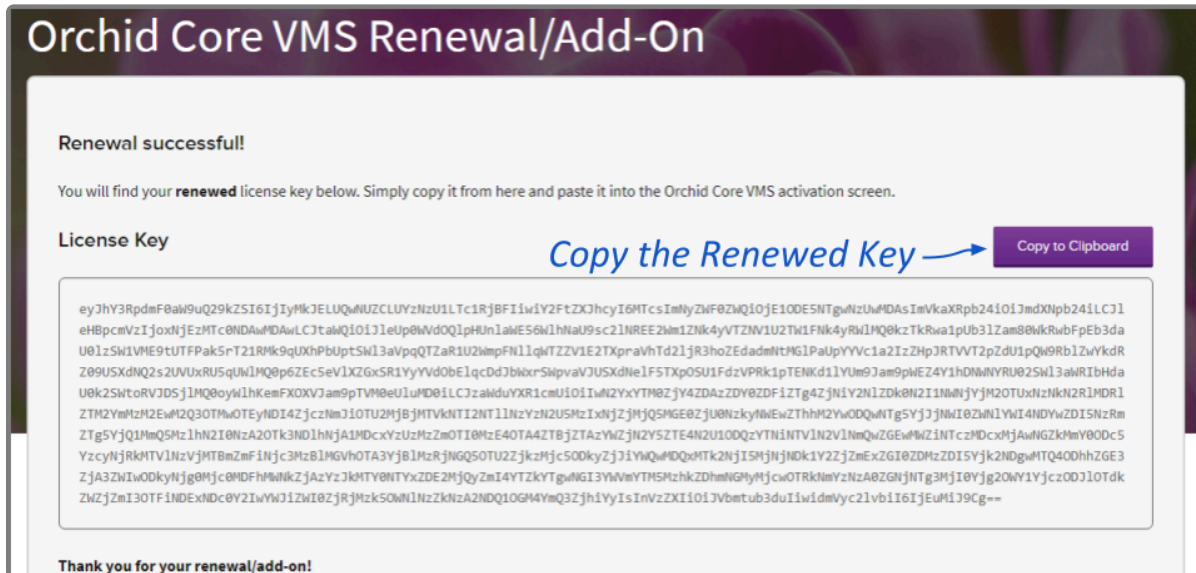
Original Activation Code

Renew/Upgrade License

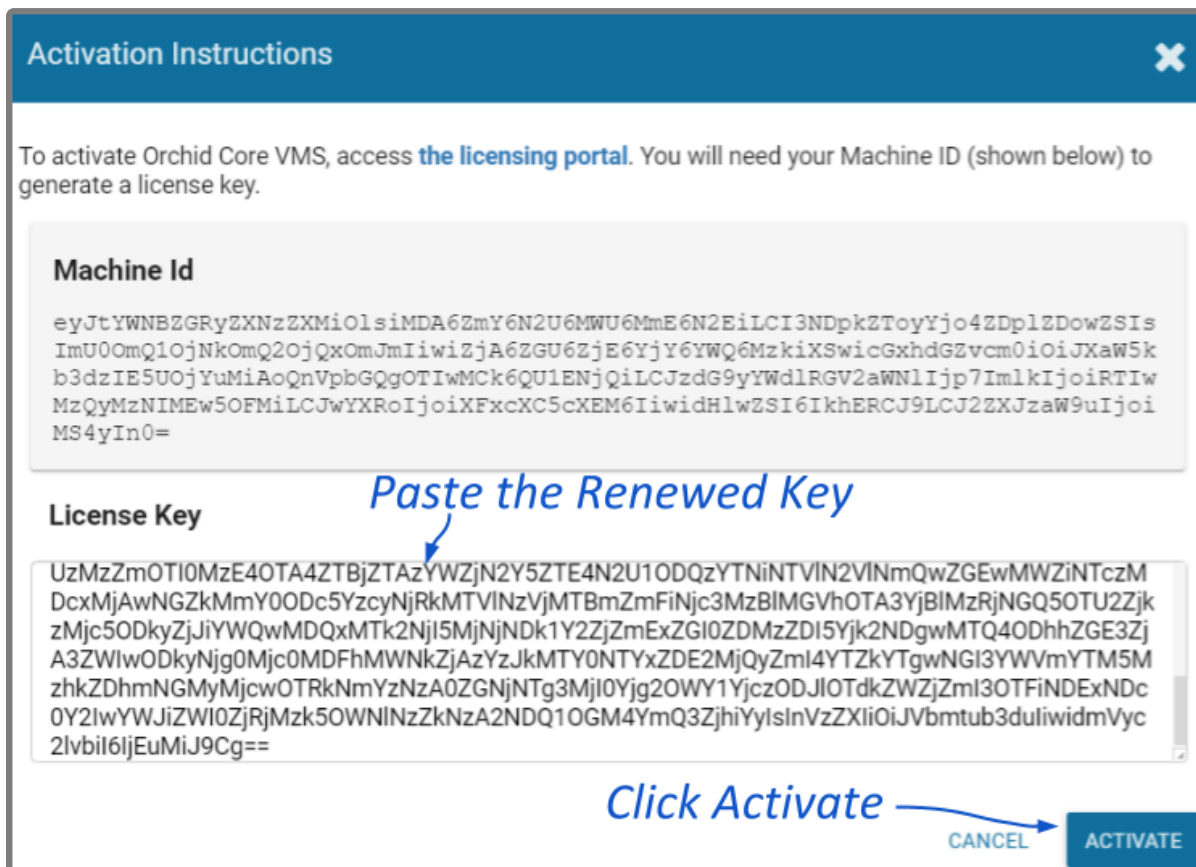
Enter Renewal/Add-On Code

Enter Original Code

- Once you reach the *Renewal/Add-On* screen, go to the *Original Activation Code* field and copy the original code from the USB drive and paste it into this field.
- Then go to the *Renewal/Add-On Code* field and enter the code that you just purchased.
- Press the **Renew/Upgrade License** button. If successful, the system will generate a *Renewed* license key.



12. Once the renewal is successful, select the text in the *License Key* field, and click **CTRL-C** to copy the License Key text. Use the **CTRL+V** command to paste it onto the USB drive.
13. Close the *Renewal/Add-On* screen on the internet-connected computer.
14. Take the USB drive back to the Orchid Core VMS server and return to the *Activation Instructions* screen.



15. Copy the *Renewed* license key text from the USB drive and paste it into the *License Key* field.
16. Click the **Activate** button to activate your new license key. If the activation was successful, you will

see a message at the top of your screen saying “*Orchid Core VMS has been activated.*”

Orchid Core VMS Activation

Orchid Core VMS has been activated. *New License has been Activated*

| Edition | Cameras Licensed | Archive Retention | Support Expiration | Activation Code |
|---------|------------------|-------------------|---------------------------------|-------------------------|
| fusion | 4/18 | Unlimited | Saturday, February 13, 2021 UTC | 48642-F2985-FE89A-09EE8 |

Thank you!

Registered Cameras / Licensed Cameras

[UPDATE LICENSE](#) [REMOVE LICENSE](#)

The Orchid Core VMS *Activation* screen should display updated information in the appropriate fields (to match the add-on, upgrade, or renewal you purchased).

The Advanced Settings Tab

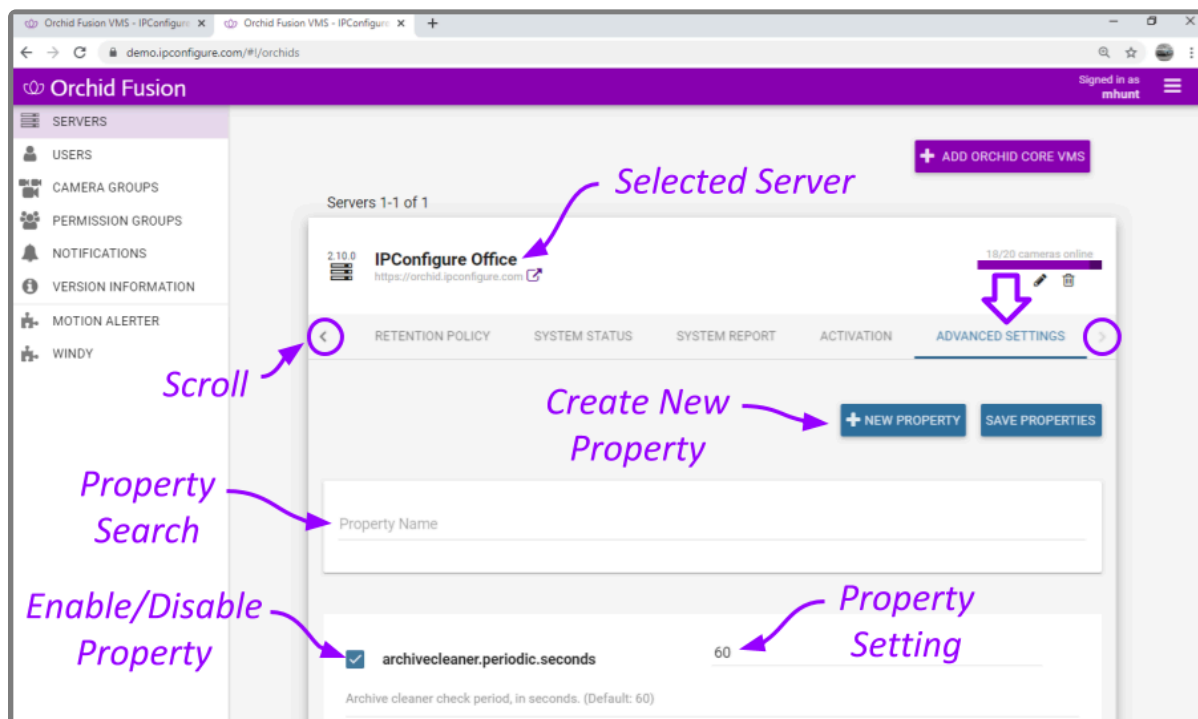
The *Advanced Settings* tab provides Administrators with direct access to the Orchid Core VMS properties file, allowing for quick and easy modifications for many of the properties.

✿ An Administrator is the only role with the ability to access the *Advanced Settings* feature.

Accessing the Advanced Settings Tab

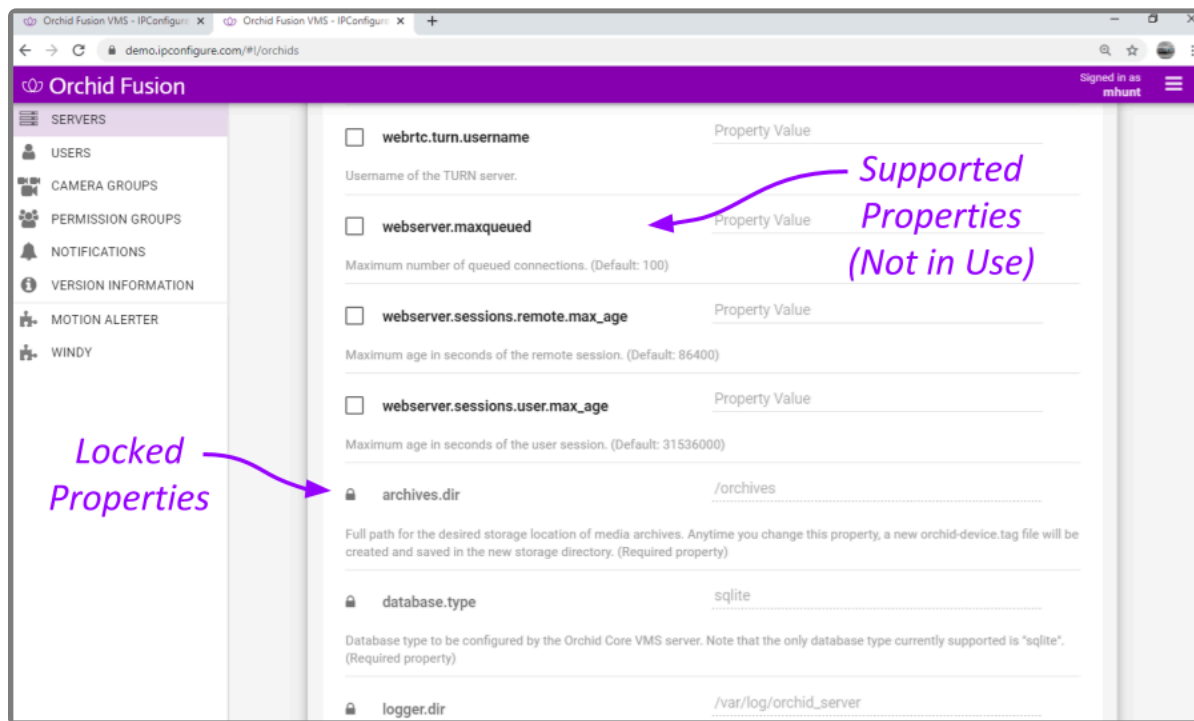
1. Once you access the *Servers* screen, select a server and click on the *Advanced Settings* tab. (You may have to use the Admin tab scroll button to see the *Advanced Settings* tab.)

The Advanced Settings screen lists all of the supported configuration properties, and allows you to add and edit properties. A marked checkbox indicates that the setting is currently in use.







If you scroll down toward the bottom of the list you will find properties that are unmarked and locked (as in the image below).

An *unmarked* checkbox indicates that the setting is supported, but is not currently being used. A locked setting represents a setting that is critical for system reliability and stability. These settings can only be changed by editing the configuration file directly.



For details on how to edit the locked properties, please refer to the *How to Edit a Configuration File* section (for the appropriate operating system), and the *Orchid Core VMS Configuration Settings* section (both of which are in the [Orchid Core VMS Installation Guide](#)).

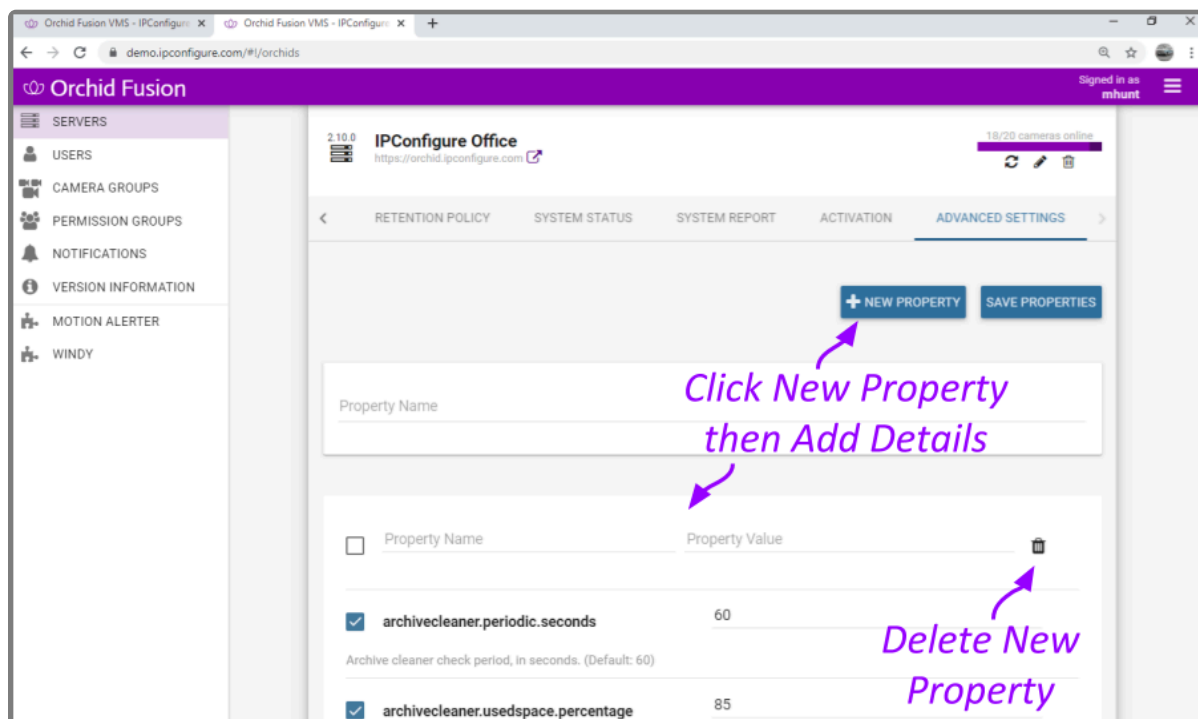
Working With Advanced Properties

| | |
|---|--|
|  | This is the Add icon (for adding new properties). |
|  | This indicates the property is in use. |
|  | This indicates that the property is supported, but not in use. |
|  | This indicates that the property must be changed by editing the Configuration file directly. |

Creating a New Property

The *Advanced Settings* feature allows Administrators to add new, undocumented properties to the Configuration file.

1. Click the **New Property** button at the top of the *Advanced Settings* screen. A new, blank property field will appear at the top of the list.



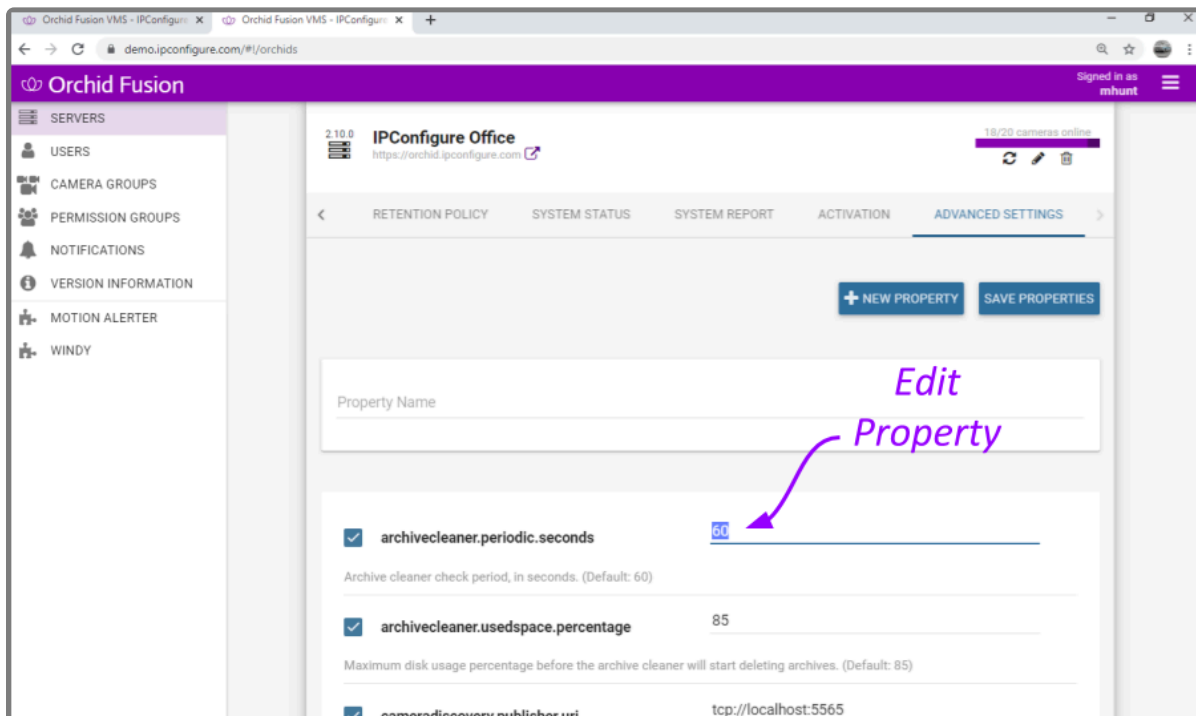
2. Mark the checkbox to activate the new property. (The property must be enabled and saved in order to be added to the Properties list.)
3. Enter a name for the new property in the *Property Name* field. [Property names are not allowed to

contain colons (:), equals signs (=), blank spaces, or control characters.]

4. Click the **Tab** key to move to the *Property Value* field.
5. Enter a value for the property.
6. Click the **Tab** key to move to another field.
7. If you decide not to add the new property, just click the **Delete (Trash Can)** icon.
8. If you have no other changes to make, click the **Save Properties** button. Be sure to complete the save (as described later).

Editing Advanced Properties

1. To change an active property, click into the field displaying the property value.



2. Type in a new value.
3. Click the **Tab** key to exit the field or click into another field.
4. If you have no other changes to make, click the **Save Properties** button. Be sure to complete the save (as described later).

Activating a New Property

1. To activate an unused property, click the checkbox to add a mark.
2. Click into the *Property Value* field and enter a new value.
3. Click the **Tab** key to exit the field or click into another field.
4. If you have no other changes to make, click the **Save Properties** button. Be sure to complete the save (as described later).

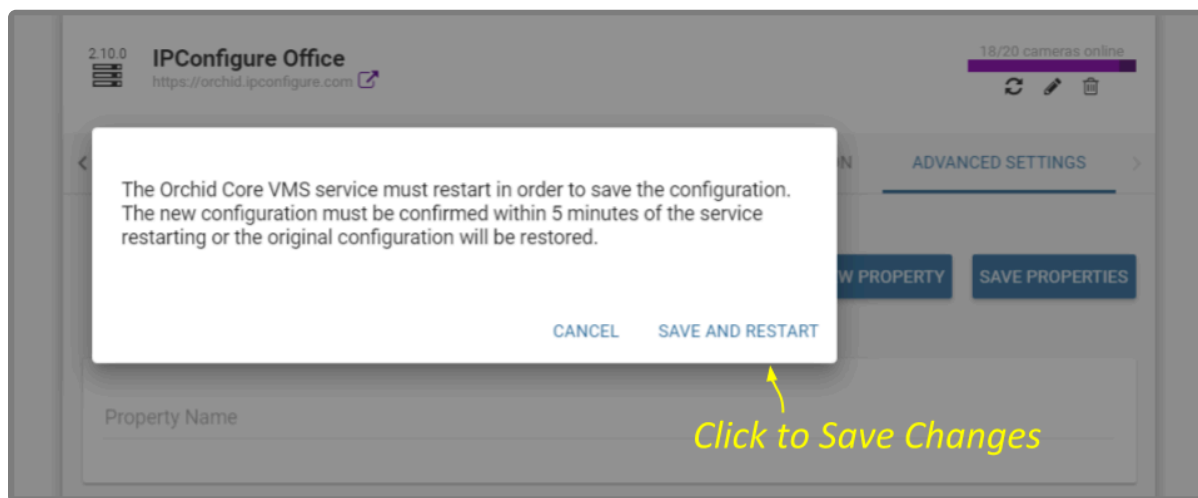
De-Activating a Property

1. To de-activate a property currently in use, click the checkbox to remove the mark.
2. If you have no other changes to make, click the **Save Properties** button. Be sure to complete the save (as described below).

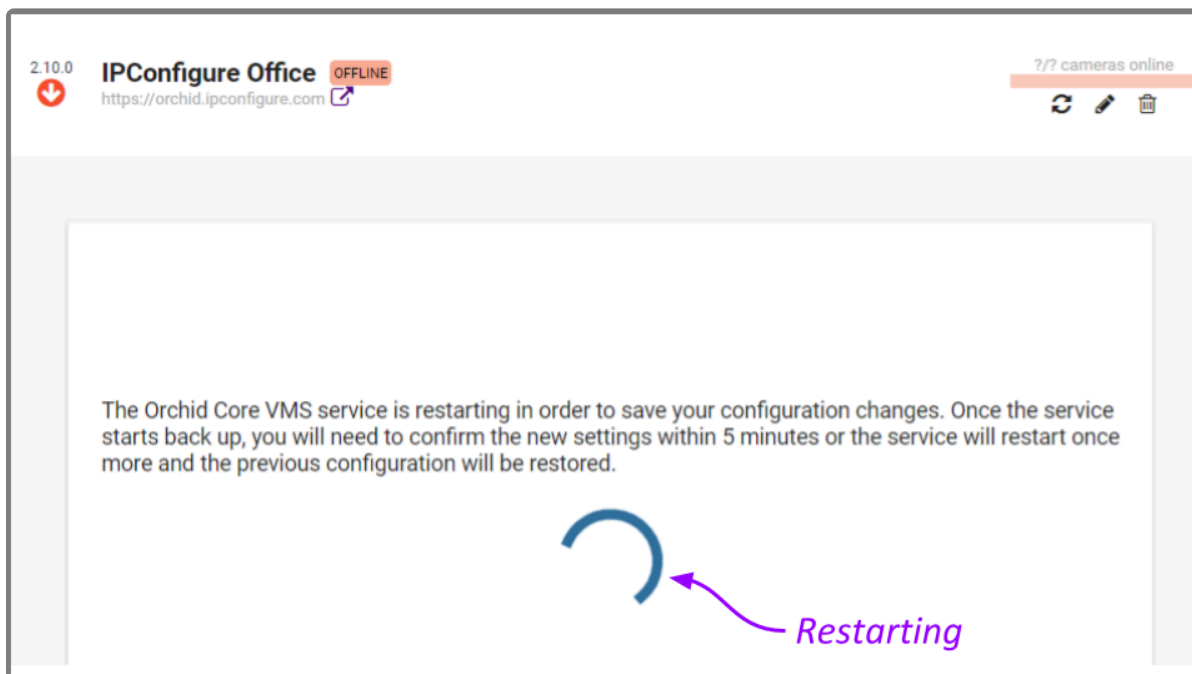
Saving Changes to Advanced Properties

Anytime you make changes to these properties, the Orchid Core VMS service must be restarted in order for the changes to take effect. Be sure to follow this procedure completely to ensure changes are saved.

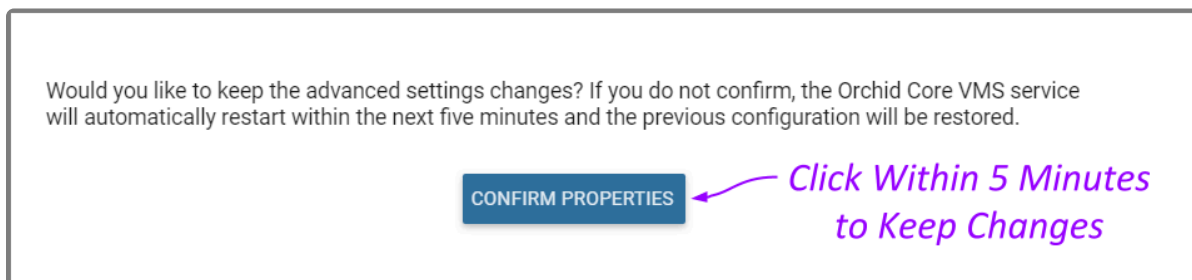
1. To save changes, click the **Save Properties** button. You'll receive a message that asks you to confirm changes and begin the restart.



2. Click the **Save and Restart** button to save your changes. The service will restart (as shown in the image below.)



3. When the restart is complete, you must instruct the system to keep the changes. (You must do this within 5 minutes or the changes will be discarded.) Click the **Confirm Properties** button (shown below) to keep the new settings.

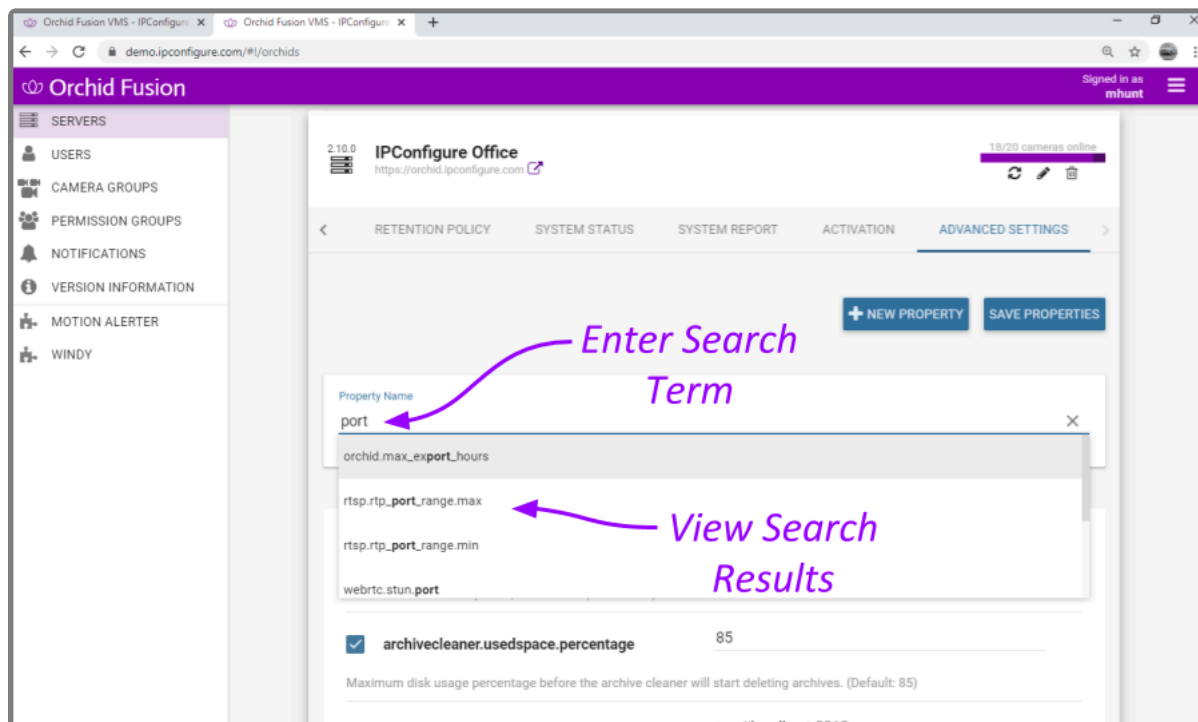


Advanced Properties Search Feature

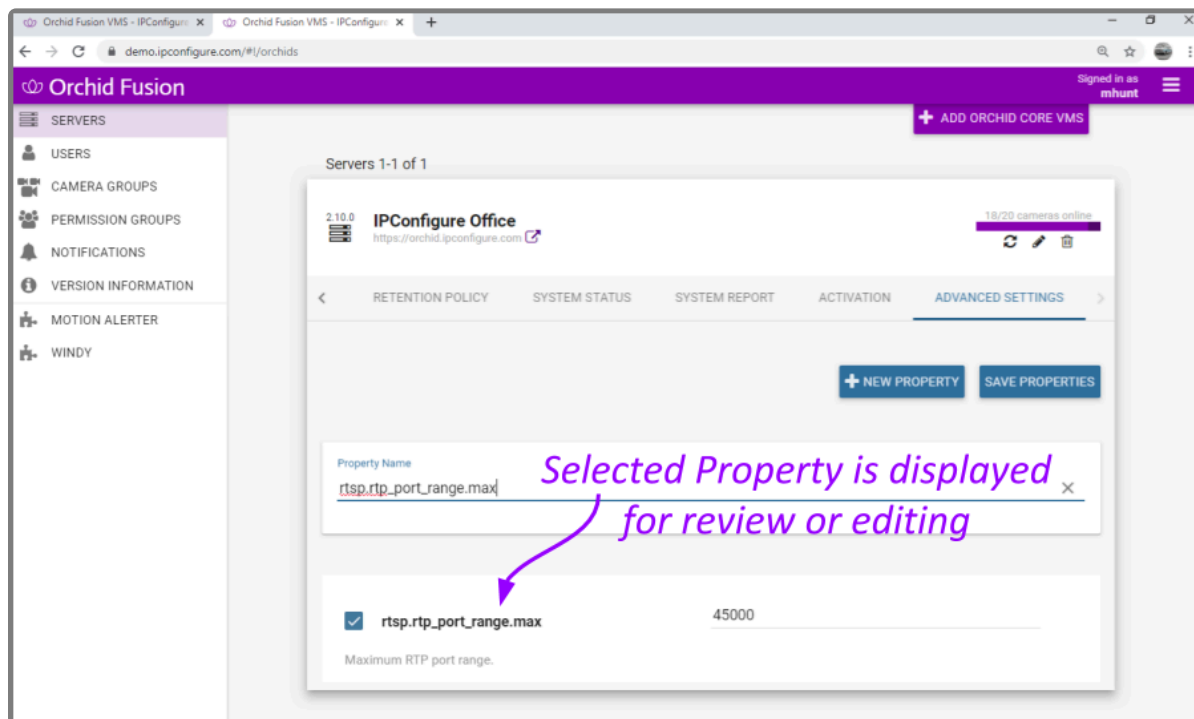
If you need to find a specific property quickly, the *Advanced Settings* screen includes a search feature. The *Property Name* field appears at the top of the screen and supports a single-term search.

1. Click into the *Property Name* field to start your search.
2. Type one word that identifies what you're looking for. (In the example below, we entered *port* as the search term.)

The software will automatically list all of the properties that match the search term.



3. If the list of results contains the property you are looking for, click on that result. The selected property will be displayed for review or editing.



4. If the list of results does not contain the property you are looking for, enter a new search term in the *Property Name* field.
5. To return to the complete *Advanced Settings* property list, clear the *Property Name* field by clicking the **X** at the right end of the field.

Creating and Managing Users

Once installation is complete, Orchid Fusion VMS is configured with one (Fusion) administrator user by default; this user is created during installation and cannot be removed. Additional users for Orchid Fusion VMS can be created with varying levels of privileges through the *Users* option in Orchid Fusion VMS's *System Menu*.

Beginning with Orchid Fusion VMS version 2.0.0, permissions for Fusion users are handled using a combination of the *Users* and the *Permission Groups* features. Any Fusion user that is configured in the system will be able to sign into Orchid Fusion VMS. The user will not have access to any cameras or video, however, until the Administrator assigns them as a member of one or more *Permission Groups*. (Please refer to the [Permission Groups](#) section for details regarding planning and creating *Permission Groups*.)

Orchid Fusion VMS provides the Administrator with the ability to manage Orchid Core VMS users as well. Permissions for these users are still handled using four basic roles: Administrator, Manager, Viewer, and Live Viewer. Orchid Core VMS users are handled as part of Orchid server management. Please refer to [The Users Tab](#) section for details.

* You must be a member of an Administrator group to create and manage users.

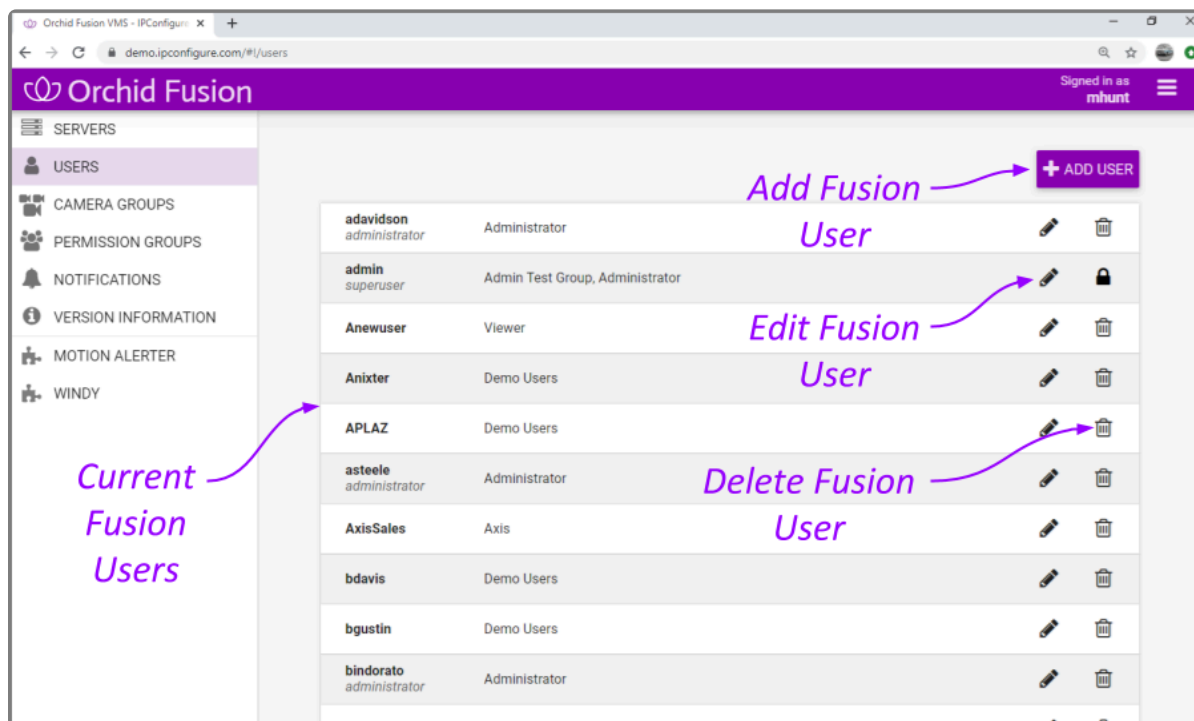
* After initial sign in, Administrators should not use the default Admin account. Instead, each Administrator should create an individual User account as part of an Administrator group. If you sign in as the default Administrator, when you sign out, you will automatically sign out any other Administrator users that are signed in with the default Administrator credentials.

* If Orchid Fusion VMS is configured to work with one of the external authentication options (such as Active Directory, Azure Active Directory, or FreeIPA), the *Fusion Users* list may include locally added Fusion users, but won't list individual users from the external authentication sources. This is because all of the external users originate as users that already exist in the external system. (Orchid Core VMS user lists will still appear and Administrators will have the ability to add and manage those users.)

Access the Orchid Fusion VMS Users List

1. Open the *System Menu* in the top-right corner of the screen and select *Users*.

The Orchid Fusion VMS *Users* screen will list all of the Fusion Users that have been added and the *Permission Groups* to which they are assigned.



Add a New Orchid Fusion VMS User

+ This is the **Add** icon.

1. Click the **Add User** button in the top-right corner of the Fusion *Users* list. A *New User* screen will open.

New User for Orchid Fusion VMS [X]

Username * *Enter Username and Email* Email Address
LiveViewerTest LiveViewerTest@ipconfigure.com
14 / 30

Groups
Live Viewer [X] Search for a Group *Select Applicable Groups*

Password * Confirm Password *

CANCEL ADD USER

2. Enter the username you would like to set for the new user in the *Username* field.
3. Enter an email address for the new user. (The email address is not a required field, but it is critical if the user will be signing in via Google authentication. In such cases, the email field must match the user's Google email address for successful sign in. The system will only allow one user per email address.)
4. Click in the *Groups* field to select all of the *Permission Groups* that apply to the new user. These selections will determine what the user will have access to. As soon as you select a *Permission Group*, another list will appear so you can make another selection (if needed). If you have not yet configured any *Permission Groups*, you can leave this field blank for now (see notes below).
 - a. Press **Esc** if you don't need to make another selection.
 - b. To remove a *Permission Group*, click the **X** to the right of the *Permission Group* name.

* These *Permission Groups* are established using the *Permission Groups* selection on the *System* menu. For more details, please refer to [Permission Groups](#).

* The software provides two locations at which you may assign user permissions. With the *User* feature, you assign user permissions (indirectly) by selecting the *Permission Group(s)*

to which the user belongs. With the *Permission Groups* feature, you assign users as members of *Permission Groups* with specific abilities and access. While you don't have to select any *Permission Groups* immediately upon adding a user, until you do, the new user will not have access to any features, servers or video.

5. Enter the password for the new user into the two fields labeled *Password* and *Confirm Password*.
6. Click the **Add User** button at the bottom of the screen to create the new Orchid Fusion VMS user.

The new user will now appear in the *Users* list and will have immediate access to Orchid Fusion VMS.

Superuser Status

Beginning in version 2.4.0, Orchid Fusion VMS allows the creation of a Superuser. A user with Superuser status can only be modified by himself/herself. Superuser status is reserved for users that are assigned to an administrator permission group, and can only be set through the configuration file. (For more details, please refer to the [Orchid Fusion VMS Installation Guide](#).)

Edit Existing Users



This is the **Edit** pencil icon.

Nothing is set in stone for Orchid Fusion VMS users and almost all of the user settings can be updated, as needed. The only user that cannot be completely edited is the default *admin* user. While the password can be updated, the username cannot be changed.

1. To edit a user, click the **Edit** pencil icon to the right of the user you want to update. The *User* screen will open.
2. Edit any of the available fields, as needed.
3. Click the **Update User** button. All of the changes will be effective immediately.

Delete Existing Users



This is the **Delete / Trash Can** icon.

1. To delete an existing user, click the **Trash Can** icon to the right of the username.
2. Orchid Fusion VMS will ask you to confirm that you would like to remove the user.
3. Click the **Delete User** button to confirm you want the user removed. It will be permanently erased.

Creating and Managing Camera Groups

Beginning with Orchid Fusion VMS version 2.2.0, the Administrator has the ability to create *Camera Groups*. These *Camera Groups* add convenience and flexibility for the User, and allow you to further customize the Orchid Fusion VMS system.

Using *Camera Groups* adds dimension to the *Camera Bag*. In earlier software versions, when you open the *Camera Bag*, you find that all of the cameras are sorted by server. With the addition of *Camera Groups*, you can also view the cameras sorted by *Camera Groups*. You may even select *Camera Groups* as your sole viewing option, if desired.

The *Camera Groups* feature simplifies the user experience in a variety of situations, especially in large systems, or in systems with similarly configured facilities. For example, let's say your Orchid Fusion VMS system has several registered Orchid Core VMS servers. These servers cover retail locations with the same basic footprint and setup. You could configure *Camera Groups* that represent common areas from each retail location, like entrances, loading docks, merchandise checkouts, etc. Now when you go to the *Camera Bag*, selecting common cameras for the *Stage* is simple because they are already assembled in a *Camera Group*. (Combine this with the *Stages* feature for increased benefit.)

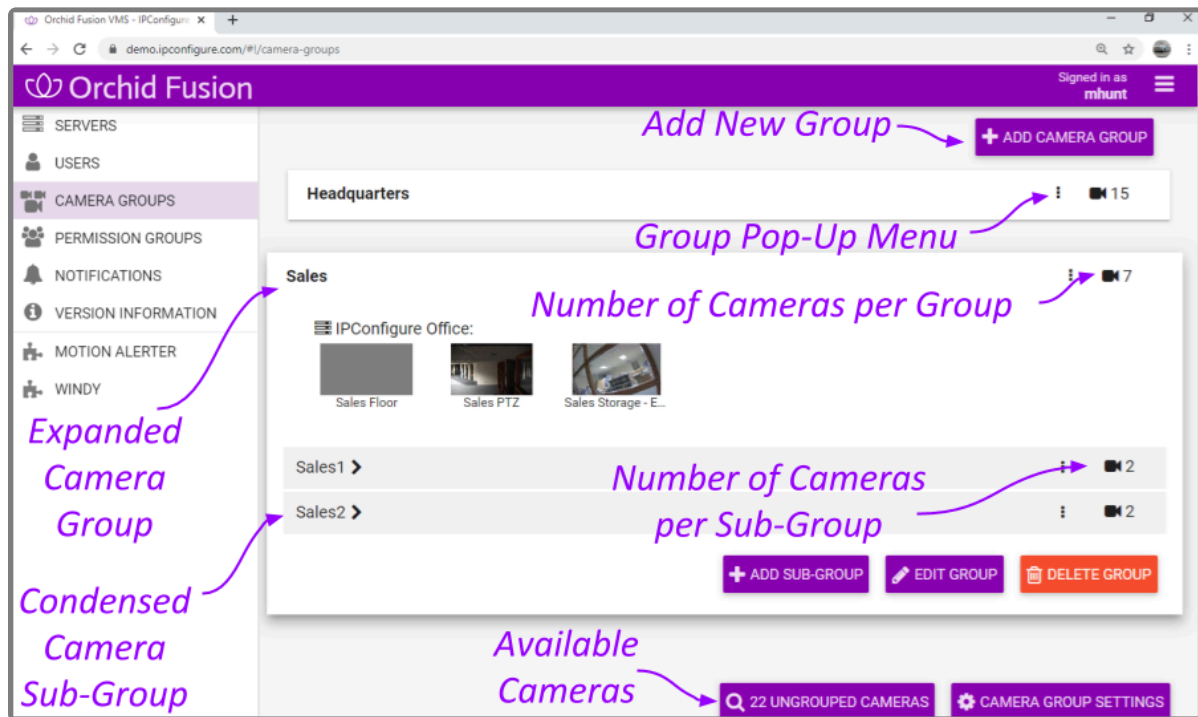


You must be a member of an Administrator group to add and manage *Camera Groups*.

Access the Orchid Fusion VMS Camera Group List

1. Open the *System Menu* in the top-right corner of the screen and select **Camera Groups**.

The Orchid Fusion VMS *Camera Groups* screen will appear. This screen displays a list of all the current *Camera Groups* and gives you the ability to add, edit, and delete them.



A quick look around...

- Click on any row that represents a *Camera Group* to expand or collapse the *Camera Group* details.
- For a top-level *Camera Group*, the number of cameras in the *Camera Group* includes the cameras in the top-level *Camera Group*, plus the number of cameras in each Sub-Group.
- You can use the buttons or the pop-up menus to manage each *Camera Group*.

Add a Camera Group



This is the **Add** icon.

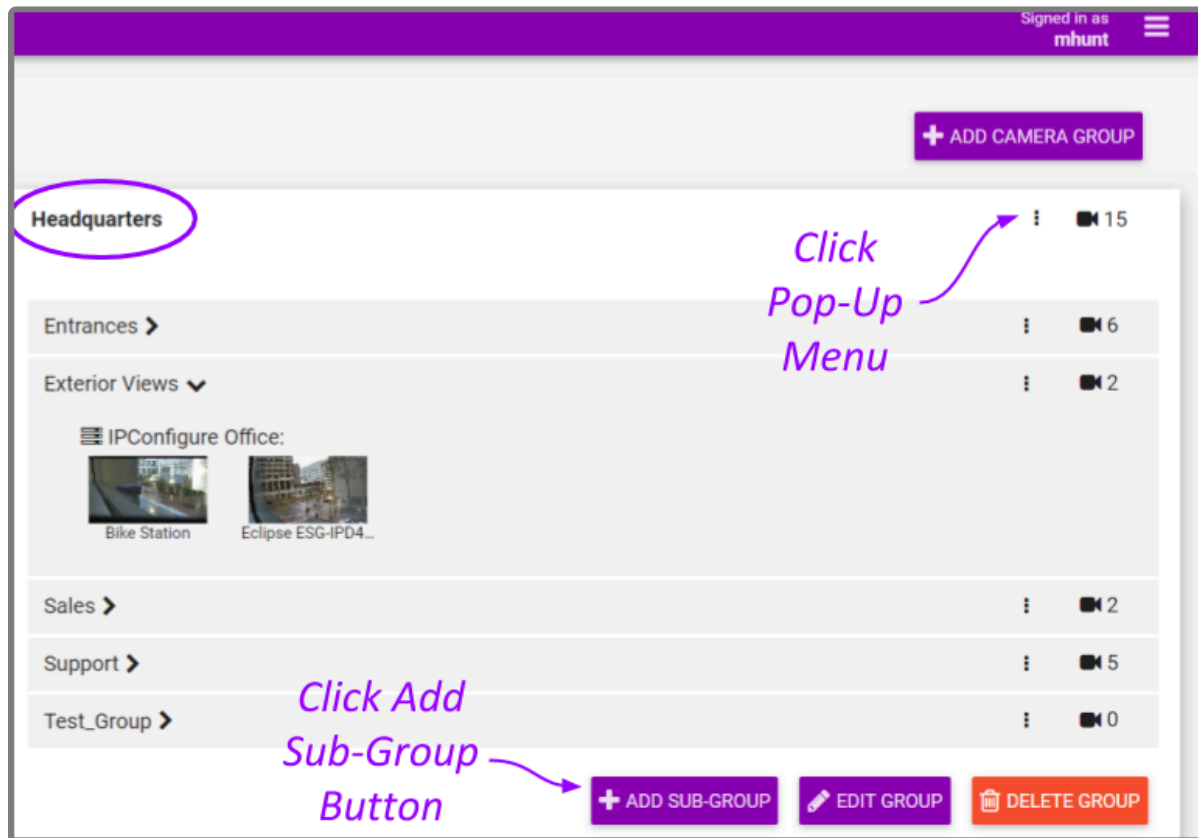
1. Click the **Add Camera Group** button in the top-right corner of the *Camera Groups* screen. A *New Camera Group* screen will open.

2. Enter a name for the new *Camera Group*.
3. Click in the *Servers and Cameras* field to select a server/camera from the drop-down list. Repeat this to add additional servers/cameras.
 - a. Press **Esc** if you don't need to make another selection.
 - b. To remove a server/camera, click the **X** to the right of the server or camera name.
4. Click the **Add Group** button to save the new *Camera Group*. The new *Camera Group* will appear in the *Camera Groups* screen.

Add a Camera Sub-Group

+ This is the **Add** icon.

1. Once you have added a *Camera Group*, you may add Sub-Groups. First, click on the *Camera Group* row to expand the *Camera Group* details.




2. Then open the *New Camera Group* screen by doing either of the following:
 - a. Click the **Add Sub-Group** button at the bottom of the *Camera Group* details.
 - b. Click the pop-up menu to the right of the *Camera Group* name and select **Add Sub-Group**.
3. Use the *New Camera Group* screen to configure the Sub-Group. (It works just like adding a top-level *Camera Group*).
4. Click the **Add Group** button to add the Sub-Group.

Here's an example of a *Camera Group* with two Sub-Groups:


Sales

Top-Level Group


IPConfigure Office:



Sales Floor



Sales PTZ




Sales Storage - E...


Sales1 ▾

Sub-Group

IPConfigure Office:



Left Elevators




Main Entrance


Sales2 ▾

Sub-Group

IPConfigure Office:



IPConfigure Entr...



Storage

+ ADD SUB-GROUP

EDIT GROUP

DELETE GROUP

Edit Camera Group



This is the **Edit** pencil icon.

You can rename or change the cameras in a *Camera Group* at any time. You will use very similar processes to edit a top-level *Camera Group* and a Sub-Group.

1. To edit a top-level *Camera Group*, click on the *Camera Group*'s pop-up menu and select **Edit Group**, or expand the *Camera Group*, then click on the **Edit Group** button.
2. To edit a Sub-Group, click on the *Camera Group*'s pop-up menu and select **Edit Group**.
3. When you have finished making changes, click the **Update Group** button.

Delete a Camera Group



This is the **Delete / Trash Can** icon.

You can delete a *Camera Group* at any time. You will use very similar processes to delete a top-level *Camera Group* and a Sub-Group.

1. To delete a top-level *Camera Group*, click on the *Camera Group*'s pop-up menu and select **Delete Group**, or expand the *Camera Group*, then click on the **Delete Group** button. The system will ask you to confirm the deletion; click **Delete Group** again to remove the *Camera Group*.
2. To delete a Sub-Group, click on the Sub-Group's pop-up menu and select **Delete Group**. The system will ask you to confirm the delete process; click the **Delete Group** button to remove the Sub-Group.



Deleting a *Camera Group* will also delete any of that *Camera Group*'s Sub-Groups.

Move a Camera Group

If you decide you need to re-organize your *Camera Groups*, you can do this pretty easily with the *Move Group* feature. This feature essentially just allows you to select a new parent *Camera Group* for an existing *Camera Group*. In doing so, you can transfer Sub-Groups to different top-level *Camera Groups*, turn top-level *Camera Groups* into Sub-Groups, and turn Sub-Groups into top-level *Camera Groups*.

1. To move a *Camera Group*, click on the *Camera Group*'s pop-up menu and select **Move Group**.

When the *Move* screen appears, check the *Parent Group* field. If you are moving a top-level *Camera Group*, the *Parent Group* field will display *None, top level group* (since the *Camera Group* currently does not have a parent). If you are moving a Sub-Group, the *Parent Group* field will display the name of the parent.

2. To make a move, click the *Parent Group* drop-down list to see available selections.

3. Select one of the available *Camera Groups* as the new parent *Camera Group*, or select *None* to make this a top-level *Camera Group*.
4. Once you've made your selection, click the **Move Group** button to complete the move.

Find Ungrouped Cameras



This is the icon that will search for **Ungrouped Cameras**.

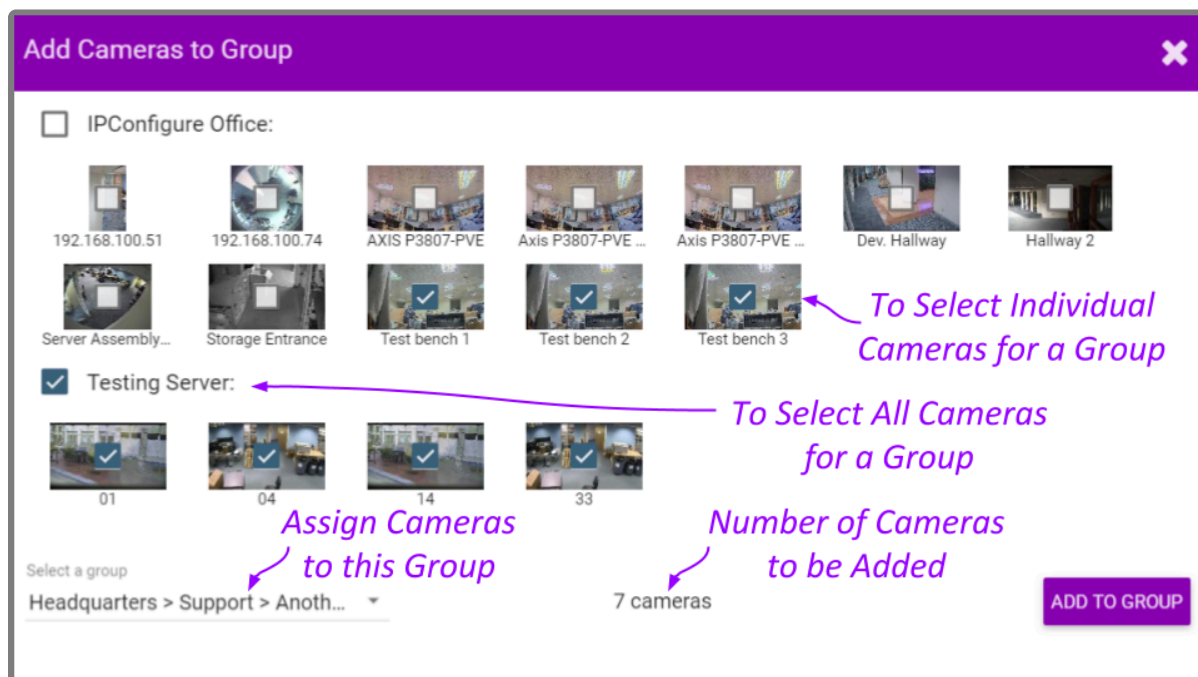
As you add and delete *Camera Groups*, Orchid Fusion VMS will keep track of cameras that have not been assigned to a *Camera Group*. Accessing this list is easy and will help you complete your *Camera Groups*.



Camera Groups are optional and not every camera has to be added to a *Camera Group*. Be aware however, that if you have ungrouped cameras, and you have elected not to view servers in the *Camera Bag*, those ungrouped cameras will not be eligible for the *Stage*.

1. To view the list of ungrouped cameras, click the **Ungrouped Cameras** button at the bottom of the *Camera Groups* screen. (Notice that the button indicates how many cameras are ungrouped.)

The *Add Cameras to Group* screen will display all of the unassigned cameras by server. Use this screen to quickly assign cameras to the appropriate groups (as needed).



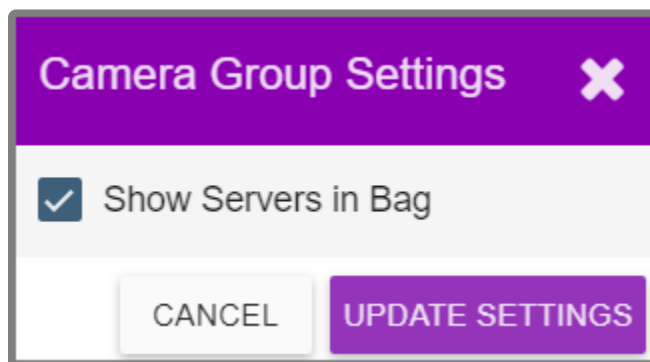
2. Select the cameras you want to assign to a group.
 - a. Mark the checkbox next to a server name to select all of its unassigned cameras for a group.
 - b. Mark individual checkboxes to pick and choose your cameras.
3. Use the *Select a group* drop-down list to select the *Camera Group* to which the selected cameras will be assigned. (The number of cameras slated for addition will be displayed next to the group name.)
4. Click the **Add to Group** button to complete the *Camera Group* assignment.

Camera Group Settings



This is the **Camera Group Settings** icon.

1. Click the **Camera Group Settings** button at the bottom of the *Camera Groups* screen.
2. Mark the *Show Servers in Bag* checkbox if you want the Servers to be displayed in the *Camera Bag* with the *Camera Groups*.
3. Leave the box unmarked if you want the *Camera Bag* to display *Camera Groups* only.
4. To save your settings, click the **Update Settings** button.



Creating and Managing Permission Groups

Beginning with Orchid Fusion VMS version 2.0.0, granular permissions are available through the *Permission Groups* feature. This means that Administrators may create custom permission sets, and will be able to:

- Define groups of users, each with different permissions
- Add *Permission Groups* as “users” of other *Permission Groups* (nested groups)
- Assign combinations of individual abilities (Live, Playback, PTZ, and Export)
- Grant and revoke permissions at both the server and camera levels

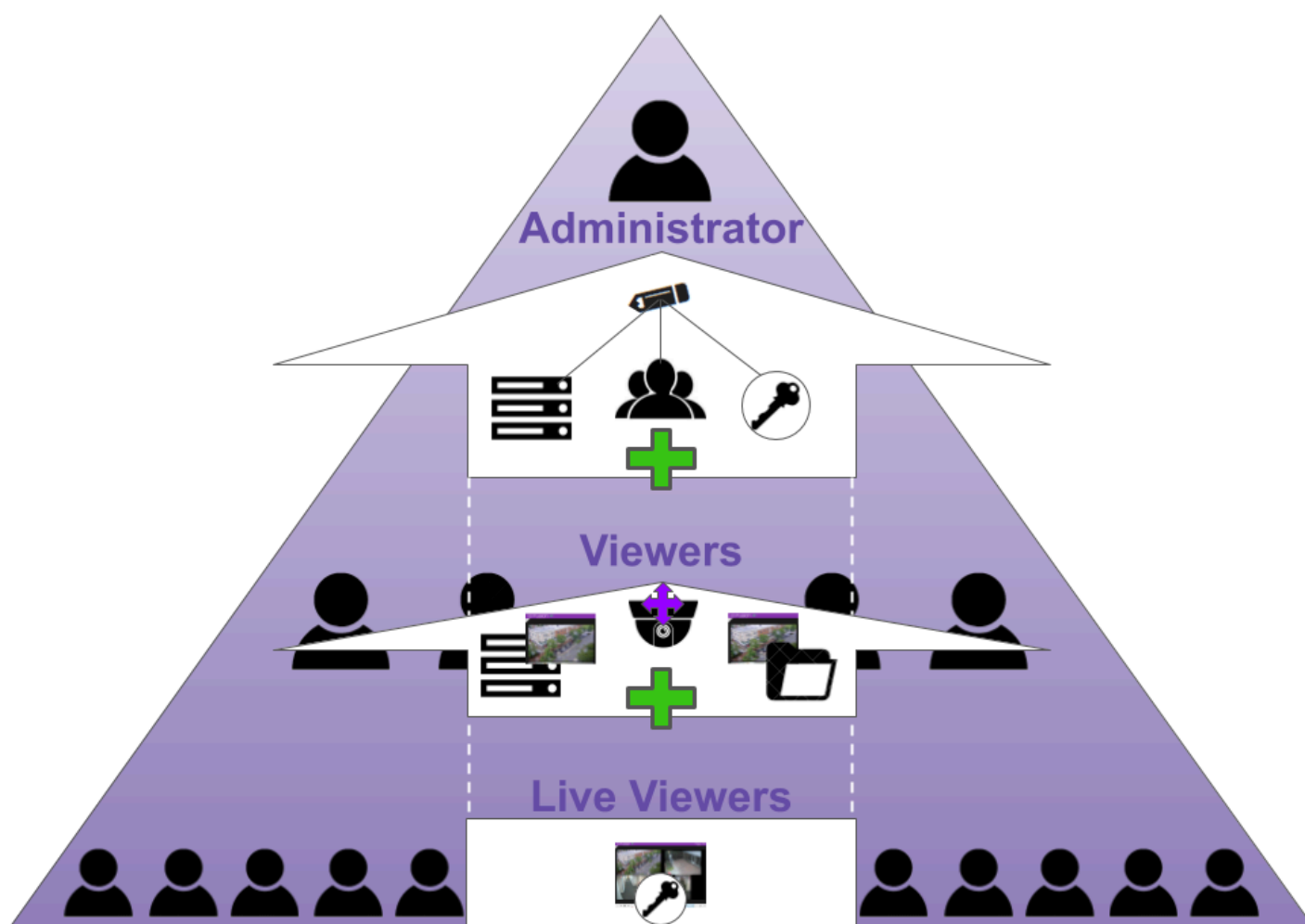
Using *Permission Groups* can decrease the Administrator’s workload by eliminating the need to enter every detail for each user, and reducing the need for future maintenance. A solid permission strategy, however, will require some planning.

✿ You must be a member of an Administrator group to add and manage *Permission Groups*.

✿ To configure Orchid Fusion VMS to work with Active Directory, Azure Active Directory, or FreeIPA, the Administrator will first need to edit the Orchid Fusion VMS properties file. (Please refer to the [Orchid Fusion VMS Installation Guide](#) for detailed instructions.) To create *Permission Groups* for any of these external authentication providers, please refer to the following: the [Add a Permission Group for Active Directory](#) section, the [Add a Permission Group for Azure Active Directory](#) section, or the [Add a Permission Group for FreeIPA](#) section.

Orchid Fusion VMS Default Permission Groups

Orchid Fusion VMS is configured with three default *Permission Groups*: Live Viewer, Viewer, and Administrator. As indicated in the next diagram, these *Permission Groups* have increasing levels of permissions, and by design, the fewest number of people should have the most permissions. This represents what may be the simplest and best permissions structure for Orchid Fusion VMS. In theory, you could just add members to each of these *Permission Groups* and be done. However, this diagram assumes that the default *Permission Groups* are sufficient and that all of the users should have access to all Orchid Core VMS servers and cameras (which may not apply in your organization).



In some organizations, *Permission Groups* may need to be restricted to certain abilities, servers and cameras. While these requirements may complicate the planning process for permissions, once a plan is in place, Orchid Fusion VMS has the tools to make it happen. Refer to the *Tips* section for general suggestions on creating *Permission Groups*, and the remainder of this section for instructions on how to configure *Permission Groups*.

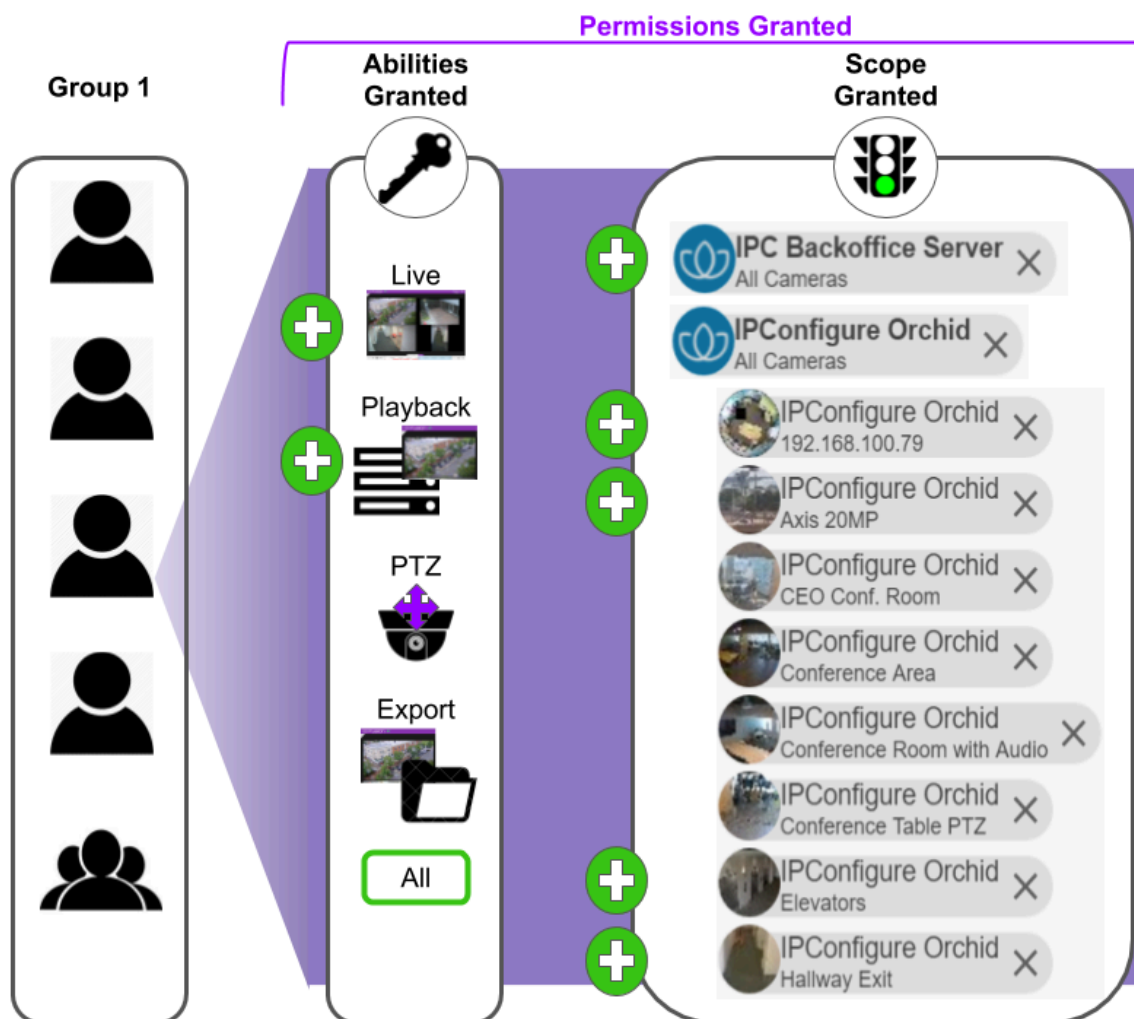
Custom Permission Groups

While you may want to utilize the Orchid Fusion VMS Default Permission Groups, you also have the option of creating new, custom Permission Groups with defined abilities and server/camera access. For each Permission Group, there are several abilities that can be granted or revoked individually. These are as follows:

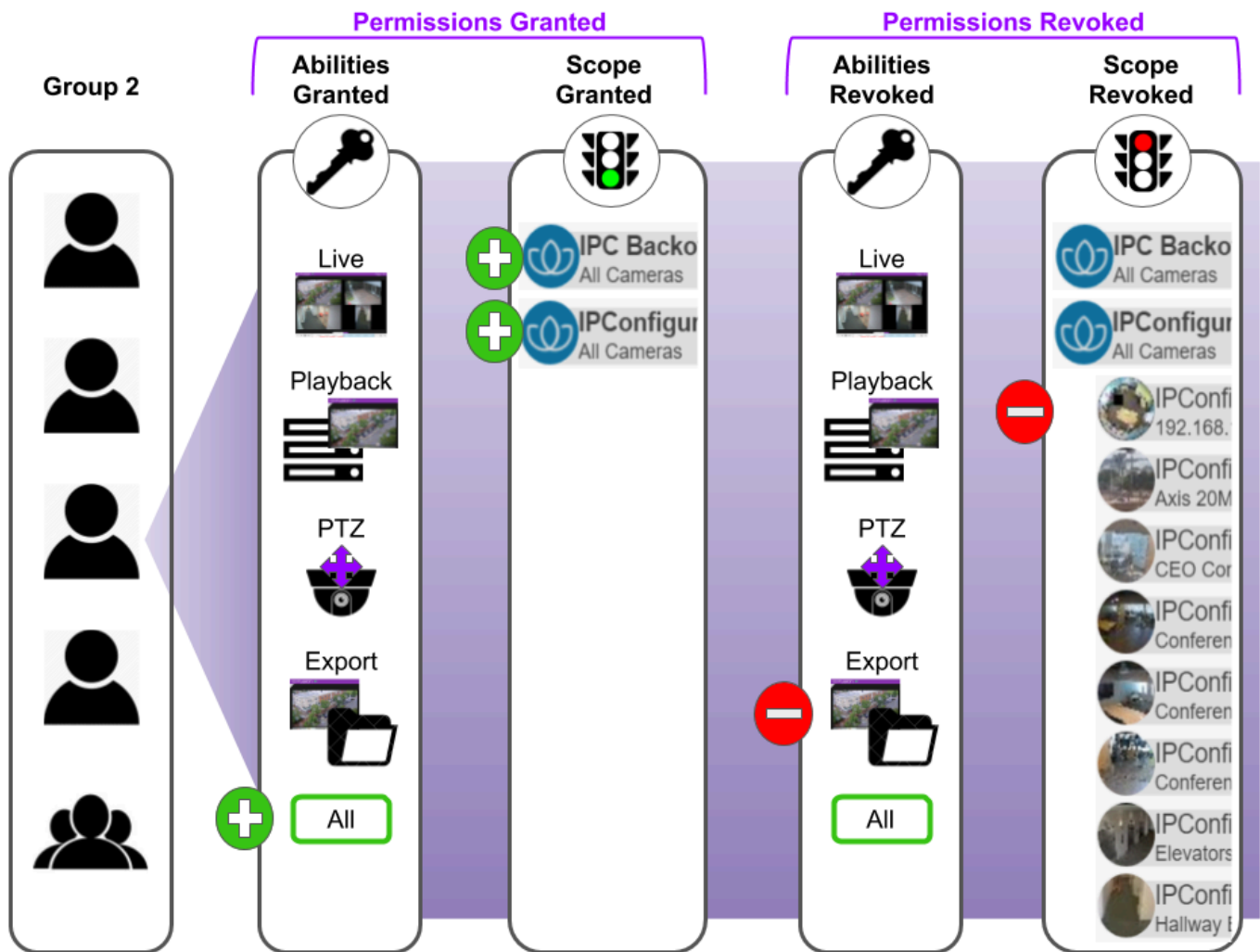
- **Live:** View live video.
- **Playback:** View archive video.
- **Export:** Export archive video.
- **PTZ:** Control PTZ cameras.
- **All:** All of the above.

Once the abilities have been selected, they can then be applied to some or all of the servers and cameras, as needed. This is a powerful combination that can be used in a variety of situations, like dividing your organization into territories to be monitored by different *Permission Groups*, or for restricting user access to secure areas.

The diagram below shows a simple example in which a *Permission Group* (with both individual members and a member *Permission Group*) is granted two abilities; these abilities are extended to one Orchid Core VMS server (with all of its cameras), and a few cameras on a second Orchid Core VMS server. In Orchid Fusion VMS, this was accomplished using one permission set. Check out the next example to see what you can do when you start adding permission sets.



The next diagram shows a more complex example (but it's still easy to set up in Orchid Fusion VMS). With one permission set, all of the abilities are granted to the *Permission Group* and these abilities are extended to two Orchid Core VMS servers (*All Servers/All Cameras*). But in this example, there needs to be one exception. To do that, another permission set is created to revoke permissions on one ability on one camera.



When you grant and revoke permissions, it is important to remember what that will mean to future system additions. In the example above, only one ability on one camera has been revoked. If you add a camera or an Orchid Core VMS server to the system, it will automatically have all of the permissions (because it is covered by the *All Servers/All Cameras* selection, and is not specifically chosen for a revoked permission).

Let's look at this example another way. Instead of using the revoke feature, we could grant all of the abilities to almost all of the cameras (by selecting the cameras one by one). In this case, if you add a camera or an Orchid Core VMS server to the system, it will not automatically have all of the permissions (because it is not covered by an *All Servers/All Cameras* selection, or specifically chosen for granted permissions).

Tips for Creating Permission Groups

- Develop a plan for permissions before you start. Ask some basic questions:
 - Who needs to have access to everything? That will be your Administrator group.
 - Who are your Users and what do they need access to during the course of a normal day?
 - Are there any abilities that need to be off-limits to some users?
 - Are there any servers or cameras that need to be off-limits to some users?
- Consider using a few standard *Permission Groups* that may cover a majority of users. (Orchid Fusion VMS Default *Permission Groups*, as discussed, include the following: Administrator, Viewer, and Live Viewer. These can be used as is, modified, ignored, or deleted.)
- Limit the Administrator group to as few members as possible.
- Refer to your organization's existing hierarchy or Active Directory to help determine permission levels for different users.
- Don't over-do it on permissions; grant users the least amount of permissions required to complete job duties.
- Try to design things so that each user is only in one *Permission Group*.
- If a user is a member of more than one *Permission Group*, remember that a permission granted in one *Permission Group* will override a permission revoked in another *Permission Group*.
- If you create a permission set that grants some abilities to *All Servers*, *All Cameras*, that permission set will automatically apply to any new camera you add to the system.
- The *Permissions Revoked* feature is especially useful when you have a large system of servers and cameras and just one (or a few) that need more restricted access. Instead of granting permissions to a large number of servers and cameras by selecting them one by one, grant the permission to *All Servers*, *All Cameras*, then revoke access to a select few.
- The system will allow some strange permission combinations, but it will typically give you hints to avoid them. For example, a *Permission Group* may have export abilities without playback abilities; this means a user can select and export a segment of recorded video without actually being able to view it until after it's exported.

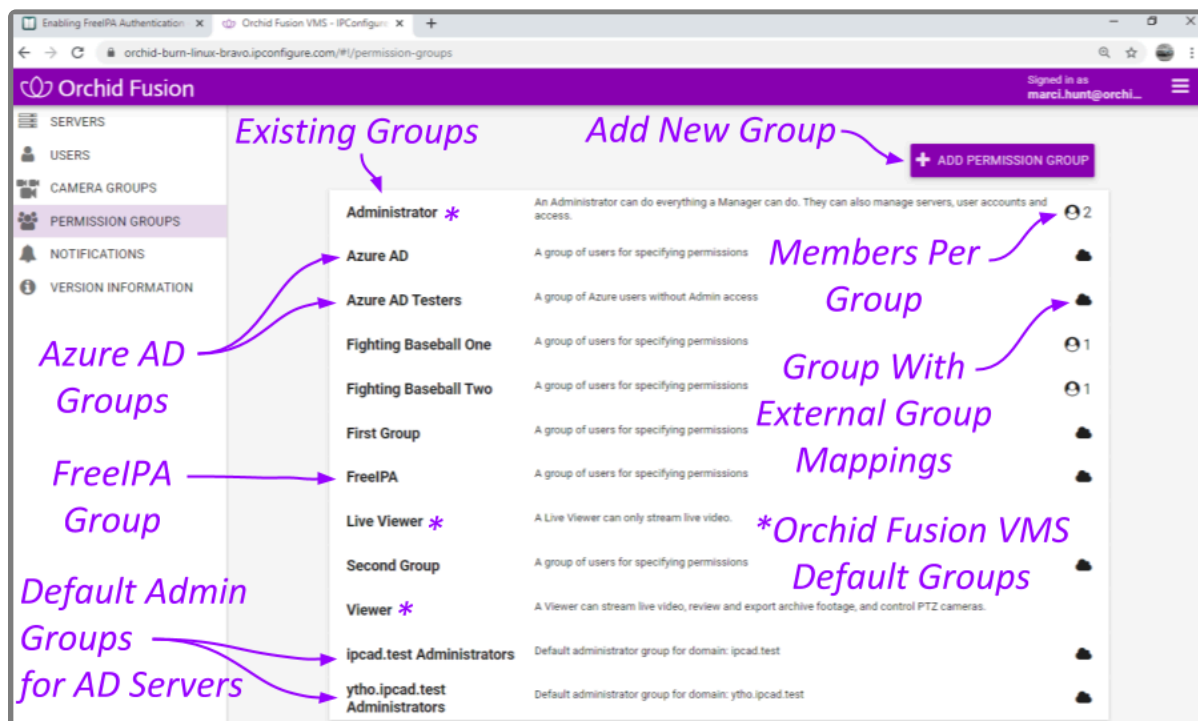
Accessing the Permission Groups

1. Open the *System Menu* in the top-right corner of the screen and select *Permission Groups*.

The *Permission Groups* screen will initially include three Orchid Fusion VMS Default *Permission Groups*. Once you start creating new *Permission Groups*, they will appear here as well. For each one, Orchid Fusion VMS displays a description of the *Permission Group*, and the number of members that are currently assigned to it.

✿ You may use the default *Permission Groups* or add new ones as necessary.

✿ When configured for Active Directory, Azure Active Directory, or FreeIPA, this list will not indicate how many members are in each *Permission Group*. (For more details on *Permission Groups* that use external group mapping, please refer to the *Add a Permission Group* section for the appropriate authentication provider.)



Add an Administrator Permission Group

+ This is the **Add** icon.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Groups* list. A *New Permission Group* screen will open.

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. Select a member for the new *Permission Group* by clicking on *Search for a User* to open a drop-down list of Orchid Fusion VMS users. Find and click on a member. As soon as you select a member, another list will appear so you can make another selection (if needed).
 - a. Press **Esc** if you don't need to make another selection.
 - b. To remove a member, click the **X** to the right of the member name.

* Available members (or Orchid Fusion VMS users) are established with the *Users* feature found on the *System* menu. For more details, please refer to *Users*. Other potential members may come from authentication providers the system has been configured to use.

* The software provides two locations at which you may assign user permissions. With the *User* feature, you assign user permissions (indirectly) by selecting the *Permission Group(s)* to which the user belongs. With the *Permission Groups* feature, you assign users as members of *Permission Groups* with specific abilities and access. While you don't have to select any members immediately upon adding a *Permission Group*, until you do, the *Permission Group* will essentially be inactive.

4. If members of this *Permission Group* will include other *Permission Groups*, click on **Search for a**

Group to open a drop-down list of existing *Permission Groups*. Find and click on a *Permission Group*. As soon as you select a *Permission Group*, another list will appear so you can make another selection (if needed).

- a. Press **Esc** if you don't need to make another selection.
- b. To remove a *Permission Group*, click the **X** to the right of the *Permission Group* name.

✿ If you add a *Permission Group* as a member of this *Permission Group*, the member *Permission Group* will automatically inherit the permissions of the main *Permission Group*. (This is probably not a common selection for an Administrator group.)

5. Since this *Permission Group* is an Administrator group, mark the Administrator Group checkbox. In addition to all-server access and video abilities, this *Permission Group* will be able to add and delete Orchid Core VMS servers, *Users*, and *Permission Groups*. (No other settings will be required.)
6. Once all settings are complete, press the **Save Group** button.

Temp Admin Group A group of Admin users for specifying permissions 2

Members
iainmacfarlane, miketruk

Member Groups ?
None

External Group Mappings ?
None

✓ **Administrator Group**

Marked as an Administrator Group, This Group Has Access to Everything in Orchid Fusion VMS

DELETE GROUP EDIT GROUP

Add a Permission Group with Individual Members

+ This is the **Add** icon.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Groups* list. A *New Permission Group* screen will open.

The screenshot shows the 'New Permission Group' dialog box. It has a purple header with a close button (X). The form contains the following fields and sections:

- Group Name***: Contains 'Shift1'.
- Group Description**: Contains 'Shift 1 security'.
- Members**: Shows 'TempUser1 X' and 'TempUser2 X' with a 'Search for a User' button.
- Member Groups**: Shows a 'Search for a Group' button.
- EXTERNAL GROUP MAPPINGS**: Shows '0 EXTERNAL GROUP MAPPINGS' and a checkbox for 'Administrator Group'.
- Permissions Granted**: A green box containing a '+ GRANT ANOTHER PERMISSION' button, a 'Live X' button, a 'Type an Ability' input, a checked checkbox for 'All Servers, All Cameras', a 'REMOVE' button, and a 'DONE' button.
- Permissions Revoked**: A pink box containing a 'Need to revoke access to cameras or features?' message and a '+ REVOKE PERMISSION' button.

Annotations in purple text with arrows point to the following elements:

- 'Group Name & Description' points to the 'Group Name' and 'Group Description' fields.
- 'Select Members' points to the 'Search for a User' button.
- 'Default Permissions for a New Group' points to the 'Permissions Granted' section.

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. Select a member for the new *Permission Group* by clicking on *Search for a User* to open a drop-down list of Orchid Fusion VMS users. Find and click on a member. As soon as you select a member, another list will appear so you can make another selection (if needed).
 - a. Press **Esc** if you don't need to make another selection.
 - b. To remove a member, click the **X** to the right of the member name.

* Available members (or Orchid Fusion VMS users) are established with the *Users* feature found on the *System* menu. For more details, please refer to *Users*. Other potential members may come from authentication providers the system has been configured to use.

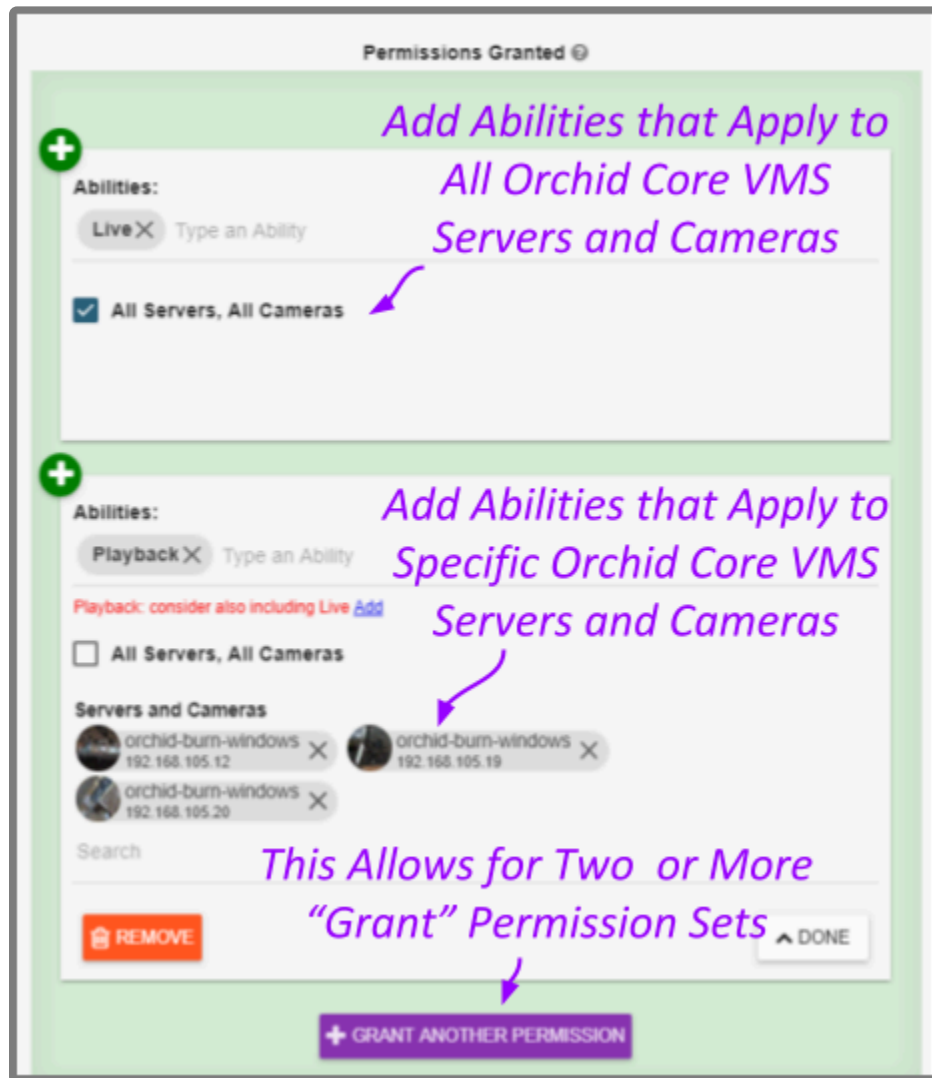
- ✱ The software provides two locations at which you may assign user permissions. With the *User* feature, you assign permissions (indirectly) by selecting the *Permission Group(s)* to which the user belongs. With the *Permission Groups* feature, you assign users as members of *Permission Groups* with specific abilities and access. While you don't have to select any members immediately upon adding a *Permission Group*, until you do, the *Permission Group* will essentially be inactive.

By default, each new *Permission Group* will be granted *Live* abilities for *All Servers*, *All Cameras*.

4. To assign specific, limited permissions for this *Permission Group*, use the *Permissions Granted* and *Permissions Revoked* features.
5. After all of the permissions are set, press the **Save Group** button.

Permissions Granted

The *Permissions Granted* feature provides a way to grant custom combinations of abilities to selected servers and cameras. In the example below, the *Permission Group* is given the ability to view live video on all servers and cameras. With the addition of another permission set, this same *Permission Group* will be able to playback video from all of the cameras on one of the servers, and one camera on a second server.

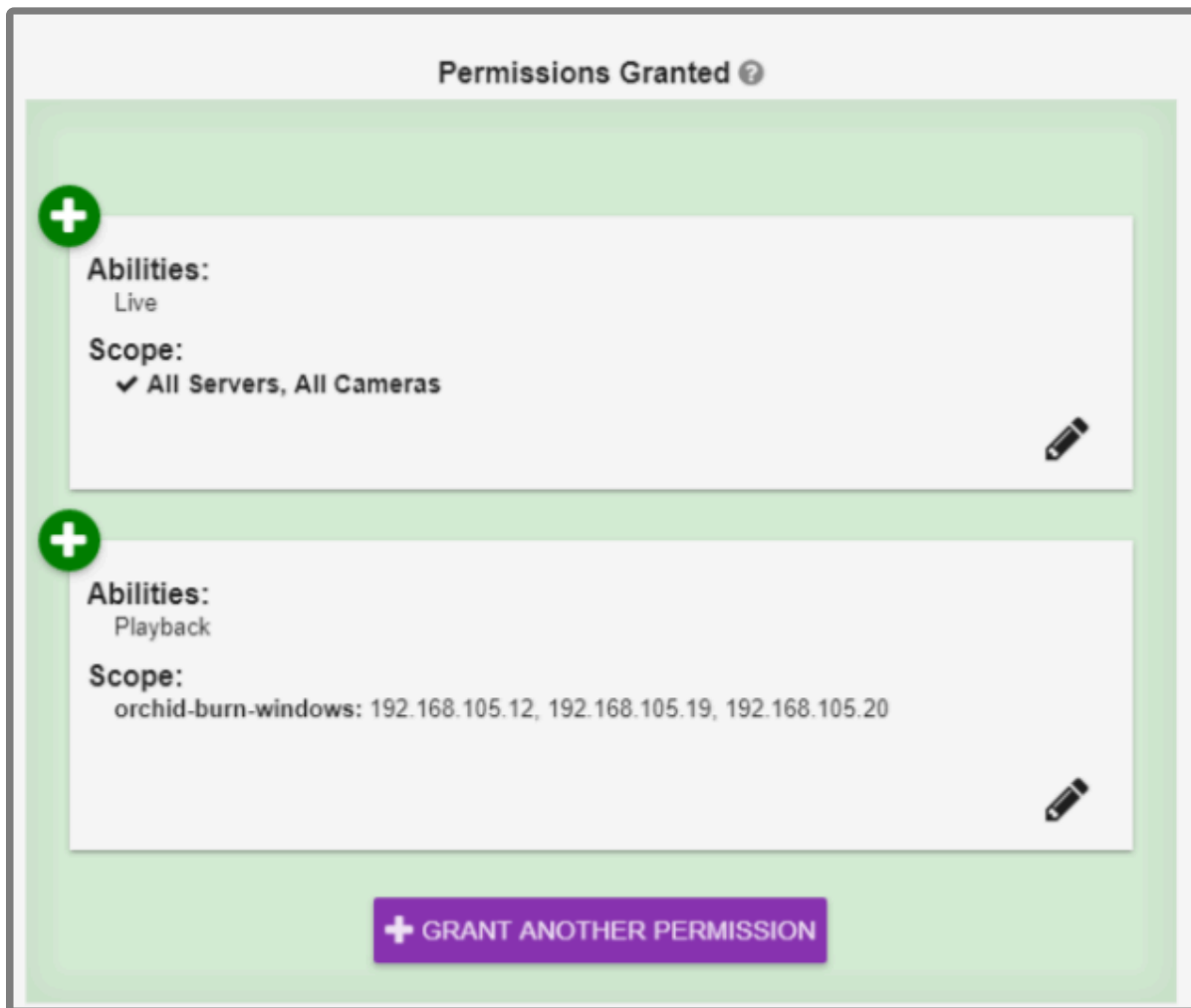


1. Go to the *Permissions Granted* box.
2. Select an ability for the new *Permission Group* by clicking on *Type an Ability* to open a drop-down list of abilities. Available selections include the following: *Live*, *Playback*, *Export*, *PTZ*, and *All* (which includes the other four abilities).
3. Click on the ability you want to grant. As soon as you select an ability, another list will appear so you can make another selection (if needed).
 - a. Press **Esc** if you don't need to make another selection.
 - b. To remove an ability, click the **X** to the right of the ability name.
4. Mark the *All Servers, All Cameras* checkbox if you want this permission set to apply to all of the registered Orchid Core VMS servers and associated cameras. You may also select this option if you want this permission set to apply to most of the servers and cameras; you may use a *Revoke* permission set in conjunction with this one to eliminate the unwanted servers and cameras. Keep in mind how this will impact cameras and servers that are added to the system later. (If marked, proceed to step number 7. If left unmarked, proceed to step 5.)

✿ If you create a *Permission Group* that uses the *All Servers, All Cameras* selection, that

Permission Group will automatically have the same access to any new cameras you add to the system.

5. Select specific servers and cameras for this permission set by unmarking the *All Servers, All Cameras* checkbox; then click on *Search for an Orchid or Camera* to open a drop-down list of registered servers and cameras. (Orchid Core VMS servers will be represented by an Orchid Core VMS logo; individual cameras will be represented by a thumbnail.)
6. Click on a server or camera. As soon as you select a server or camera, another list will appear so you can make another selection (if needed).
 - a. Press **Esc** if you don't need to make another selection.
 - b. To remove a server/camera, click the **X** to the right of the server/camera name.
7. When the permission set is complete, press the **Done** button.

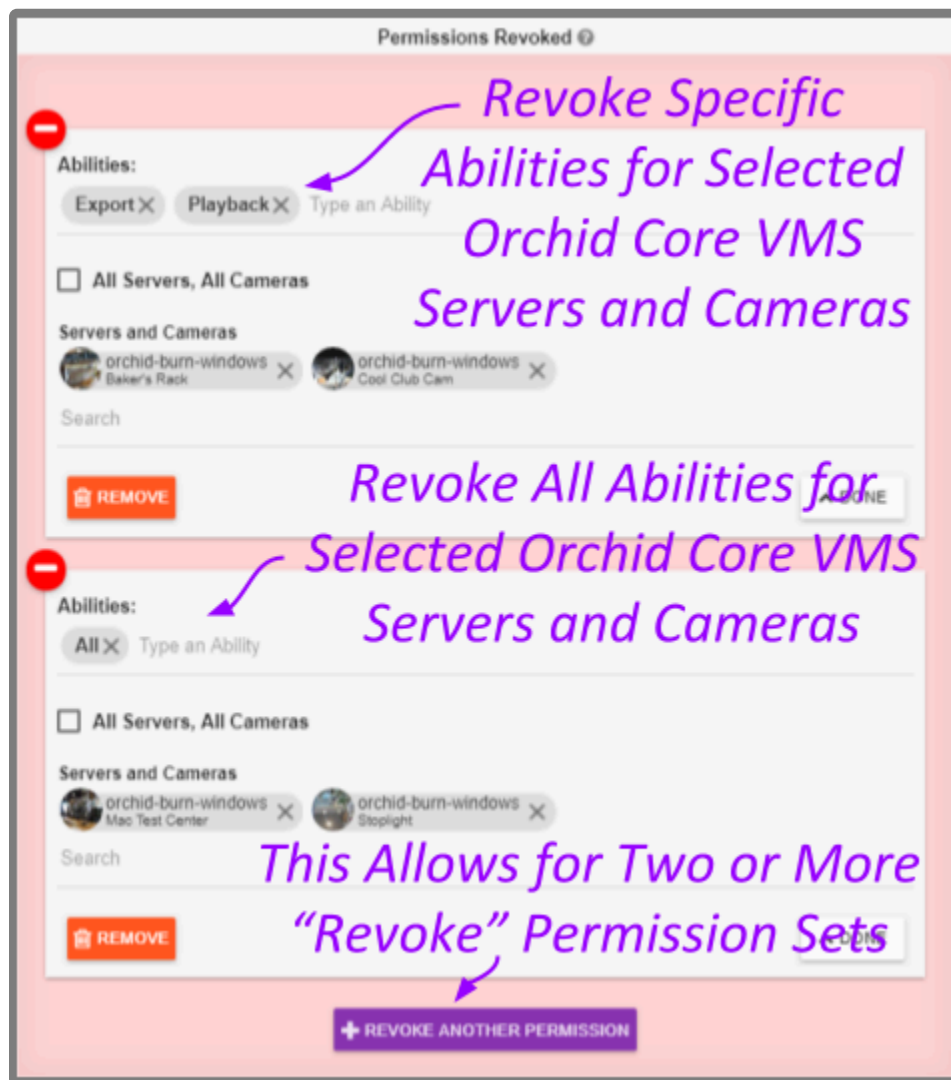


8. If you need to add another permission set for this *Permission Group*, click the **Grant Another Permission** button, then repeat steps 1 through 8.
9. To edit a permission set, click the **Edit** pencil that corresponds to the set you want to edit.
10. To delete a permission set, click the **Remove** button. (The set will be removed immediately.) If you don't see the **Remove** button, enter edit mode first by clicking the **Edit** pencil.

Permissions Revoked

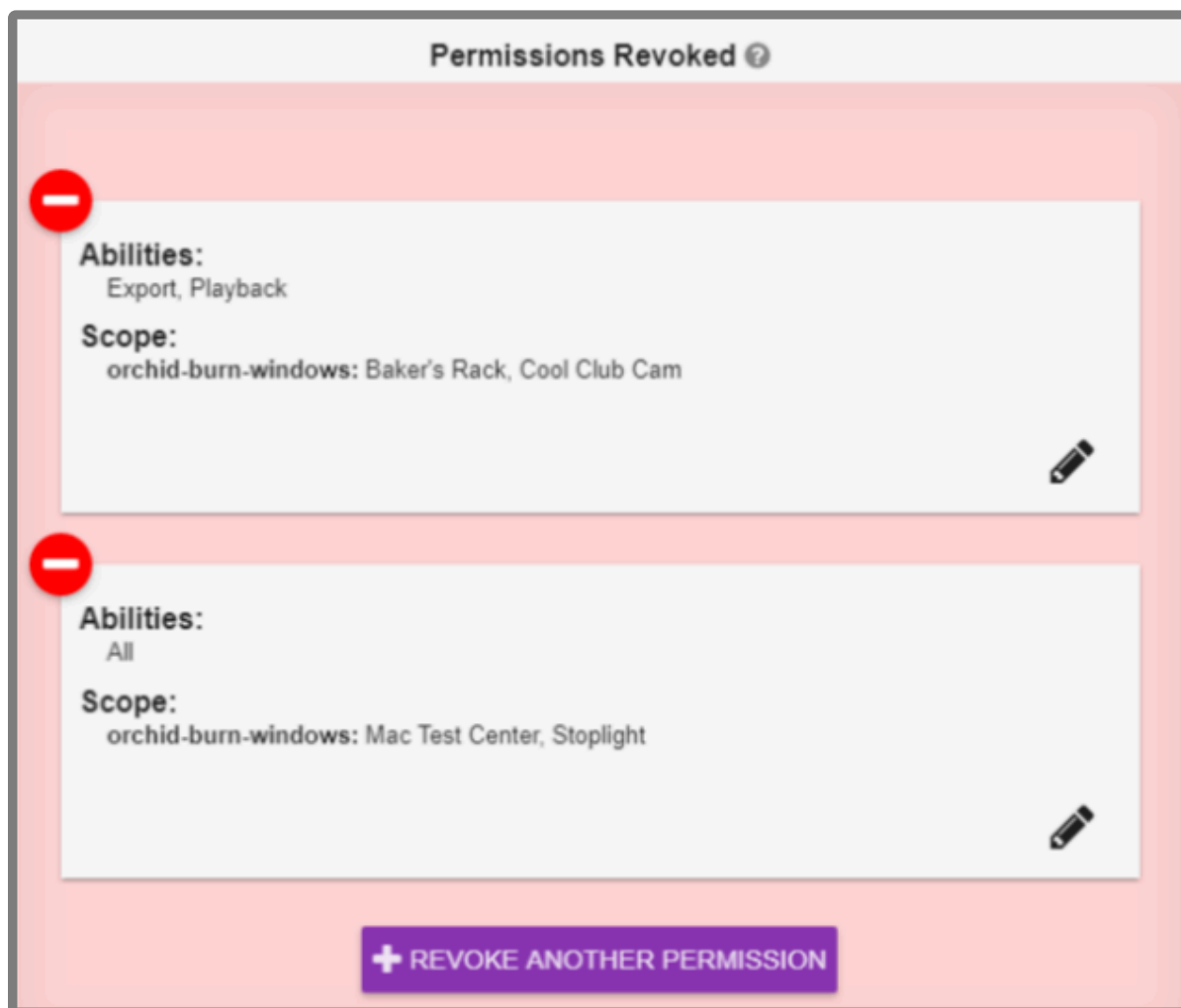
The *Permissions Revoked* feature provides a way to eliminate the *Permission Group's* ability to do certain things for selected servers and cameras. This can be a great shortcut especially when, for example, there is only one camera out of many that requires some restricted access. In the sample below, the *Permission Group's* ability to view recorded video and export video has been revoked on two cameras. By adding another permission set, this *Permission Group* will lose all abilities for another camera.

- * Although not shown here, this *Permission Group* was granted *All abilities* on *All Servers, All Cameras*. *Permissions Revoked* settings will override *Permissions Granted* settings. Keep in mind how these settings will impact cameras and servers that are added to the system later.



1. Go to the *Permissions Revoked* box.
2. Select the ability you want to take away from the *Permission Group* by clicking on *Type an Ability* to open a drop-down list of abilities. Available selections include the following: *Live*, *Playback*, *Export*,

- PTZ*, and *All* (which includes the other four abilities).
- Click on the ability you want to eliminate. As soon as you select an ability, another list will appear so you can make another selection (if needed).
 - Press **Esc** if you don't need to make another selection.
 - To remove an ability from the revoked list, click the **X** to the right of the ability name.
 - Mark the *All Servers*, *All Cameras* checkbox if you want this permission set to apply to all of the registered Orchid Core VMS servers and associated cameras. (If marked, proceed to step 7. If left unmarked, proceed to step 5.)
 - Select specific servers and cameras for this permission set by unmarking the *All Servers*, *All Cameras* checkbox; then click on *Search for an Orchid or Camera* to open a drop-down list of registered servers and cameras. (Orchid Core VMS servers will be represented by an Orchid Core VMS logo; individual cameras will be represented by a thumbnail.)
 - Click on a server or camera. As soon as you select a server or camera, another list will appear so you can make another selection (if needed).
 - Press **Esc** if you don't need to make another selection.
 - To remove a server/camera from the revoked list, click the **X** to the right of the server/camera name.
 - When the permission set is complete, press the **Done** button.



8. If you need to add another revoked permission set for this *Permission Group*, click the **Revoke Another Permission** button, then repeat steps 1 through 8.
9. To edit a permission set, click the **Edit** pencil icon that corresponds to the set you want to edit.
10. To delete a permission set, click the **Remove** button. (The set will be removed immediately.) If you don't see the **Remove** button, enter edit mode first by clicking the **Edit** pencil.

Add a Permission Group that Includes a Member Group

+ This is the **Add** icon.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Group* list. A *New Permission Group* screen will open.

The screenshot shows the 'New Permission Group' dialog box. It has a purple header bar with a close button (X) in the top right. The form contains the following fields and sections:

- Group Name:** 'New Group M'
- Group Description:** 'A permission group with Member groups'
- Members:** A search bar labeled 'Search for a User'.
- Member Groups:** A section with two buttons: 'Fighting Baseball One' and 'Fighting Baseball Two', each with an 'X' icon to its right. A search bar labeled 'Search for a Group' is to the right of these buttons. A purple arrow points from the text 'Select Member Groups' to the 'Search for a Group' bar.
- EXTERNAL GROUP MAPPINGS:** A section with a search bar and a button labeled 'Grant and Revoke Permissions'.
- Permissions Granted:** A green-bordered section containing:
 - Abilities:** A search bar with a green plus icon and a button labeled 'Live' with an 'X' icon.
 - Servers and Cameras:** A section with two buttons: 'orchid-burn-linux-bravo' and 'orchid-burn-tower-9031', each with an 'X' icon.
- Permissions Revoked:** A pink-bordered section containing a button labeled '+ REVOKE PERMISSION'.

At the bottom right of the dialog are 'CANCEL' and 'SAVE GROUP' buttons. Purple annotations include an arrow pointing to the 'Grant and Revoke Permissions' button and another pointing to the '+ REVOKE PERMISSION' button.

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. To add member *Permission Groups* to this *Permission Group*, click on *Search for a Group* to open a drop-down list of existing *Permission Groups*. Find and click on a *Permission Group*. As soon as you select a *Permission Group*, another list will appear so you can make another selection (if needed).
 - a. Press **Esc** if you don't need to make another selection.
 - b. To remove a *Permission Group*, click the **X** to the right of the *Permission Group* name.

* When you add a *Permission Group* as a member *Permission Group*, it will automatically inherit the permissions of the main *Permission Group*.

- * The software provides two locations at which you may assign user permissions. With the *User* feature, you assign user permissions (indirectly) by selecting the *Permission Group(s)* to which the user belongs. With the *Permission Groups* feature, you assign users as members of *Permission Groups* with specific abilities and access. While you don't have to select any members immediately upon adding a *Permission Group*, until you do, the *Permission Group* will essentially be inactive.

4. To assign specific, limited permissions for this *Permission Group*, use the *Permissions Granted* and *Permissions Revoked* features.
5. After all of the permissions are set, press the **Save Group** button.
6. When the *Permission Group* appears in the *Permission Groups* list, click **Show Members** to display all of the users in the member *Permission Group*, or **Hide** to conceal them.

The screenshot displays the 'New Group M' configuration window. It includes sections for 'Members' (set to 'None'), 'Member Groups' (listing 'Fighting Baseball One' and 'Fighting Baseball Two'), 'Included Members' (listing 'SampleUser1', 'SampleUser2', 'miketruk', 'TempUser1', and 'TempUser2' with a 'Hide' link), and 'External Group Mappings' (set to 'None'). A large green box titled 'Permissions Granted' contains a '+' icon, 'Abilities: Live', and 'Scope: orchid-burn-linux-bravo: All Cameras, orchid-burn-tower:9031: All Cameras'. At the bottom are 'DELETE GROUP' and 'EDIT GROUP' buttons. Purple annotations with arrows point to the 'Member Groups' list, the 'Included Members' list, the 'Permissions Granted' box, and the 'Hide' link.

Two Groups Are Selected as Members

Group Member Names Can Be Displayed or Hidden

Permissions Granted Give These Groups Additional Access

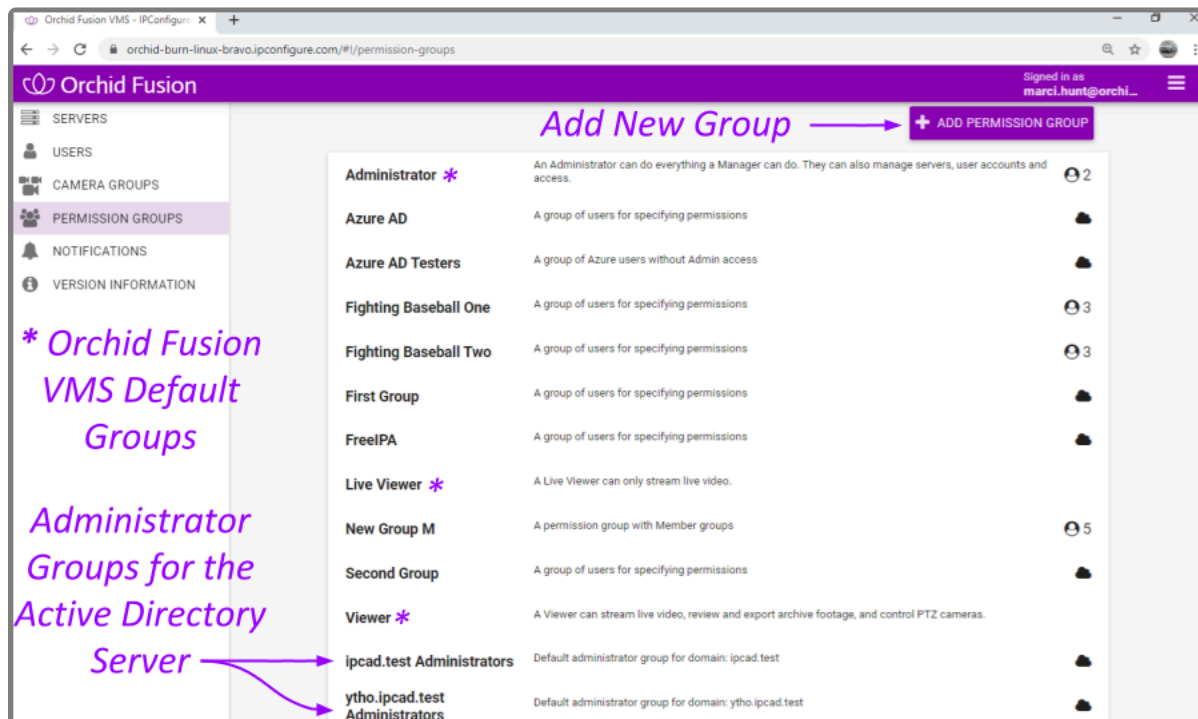
Permission Groups may contain a combination of individual members, member *Permission Groups*, and external groups.

Add a Permission Group for Active Directory

+ This is the **Add** icon.

The *Permissions Group* screen lists all of the *Permission Groups* that have been added. For each of these *Permission Groups*, Orchid Fusion VMS displays a description of the *Permission Group*. If the Fusion configuration file has been modified to add the Active Directory server(s), you may add *Permission Groups* that pull users from your Active Directory.

* For details on modifying the Orchid Fusion VMS configuration file to add the Active Directory server(s), please refer to the [Orchid Fusion VMS Installation Manual](#).



* In the image above, the Active Directory Administrator groups (at the bottom of the list) were created with an older version of Orchid Fusion VMS by modifying the Fusion configuration file. These Administrator groups can now be added just like any other *Permission Group*, via the Orchid Fusion VMS user interface.

* You may use the default *Permission Groups* or add new *Permission Groups* as you deem necessary.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Groups* list. A *New Permission Group* screen will open.

The screenshot shows the 'New Permission Group' form with the following fields and sections:

- Group Name:** A-DGroup1
- Group Description:** A group of Active Directory users
- Members:** Search for a User
- Member Groups:** Search for a Group
- EXTERNAL GROUP MAPPINGS:** 2 mappings listed:
 - ipcad.test / Test1
 - ytho.ipcad.test / Test2
- Domain:** (empty field)
- Group:** (empty field)
- Administrator Group:** ☐
- Permissions Granted:** Section with a green background and a plus icon. It lists 'Abilities: Live X Playback X' and a text input 'Type an Ability'.
- Permissions Revoked:** Section with a red background. It contains a prompt 'Need to revoke access to cameras or features?' and a '+ REVOKE PERMISSION' button.
- Buttons:** CANCEL and SAVE GROUP at the bottom right.

Annotations on the screenshot:

- A purple arrow points to the 'Group Name' and 'Group Description' fields with the text: *Enter Group Name and Description*
- A purple arrow points to the 'Member Groups' section with the text: *Select Active Directory Groups*
- A purple arrow points to the 'Permissions Granted' section with the text: *Grant and Revoke Permissions*

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. Click on **External Group Mapping**.
4. Click in the *Domain* field and enter the name of the domain in which your target Active Directory users exist.
5. Click in the *Group* field and enter the name of the group in which your target Active Directory users exist.
6. Click the **Add** icon to add this new external group. As soon as you add the new external group, another prompt will appear so you can enter another group (if needed).
 - a. If you don't have any additional external groups to add, simply click in the white space to the right of the *Domain* and *Group* fields.
 - b. To remove an external group mapping, click the **Delete/Trash Can** icon to the right of the group name.

✿ Available members for an Active Directory *Permission Group* include all of the users that are already defined in your Active Directory. For more details, please refer to your Active Directory documentation.

* You may add external groups from Active Directory, Azure Active Directory, and FreeIPA to the same *Permission Group*, if desired.

7. If this *Permission Group* is going to have all of the permissions that an Administrator has (like adding and deleting Orchid Core VMS servers, *Users*, and *Permission Groups*), mark the *Administrator Group* checkbox. (If marked, no other settings will be required.)
8. If this *Permission Group* is going to have specific, limited permissions, use the *Permissions Granted* and *Permissions Revoked* features.
9. After all of the permissions are set, press the **Save Group** button.

The screenshot displays the configuration interface for a group named "A-DGroup1", described as "A group of Active Directory users". The interface includes sections for "Members" (None), "Member Groups" (None), and "External Group Mappings" (ipcad.test \ Test1, ytho.ipcad.test \ Test2). A large green box titled "Permissions Granted" contains a list of abilities (Live, Playback) and a scope (All Servers, All Cameras). At the bottom, there are buttons for "DELETE GROUP" and "EDIT GROUP".

Annotations:

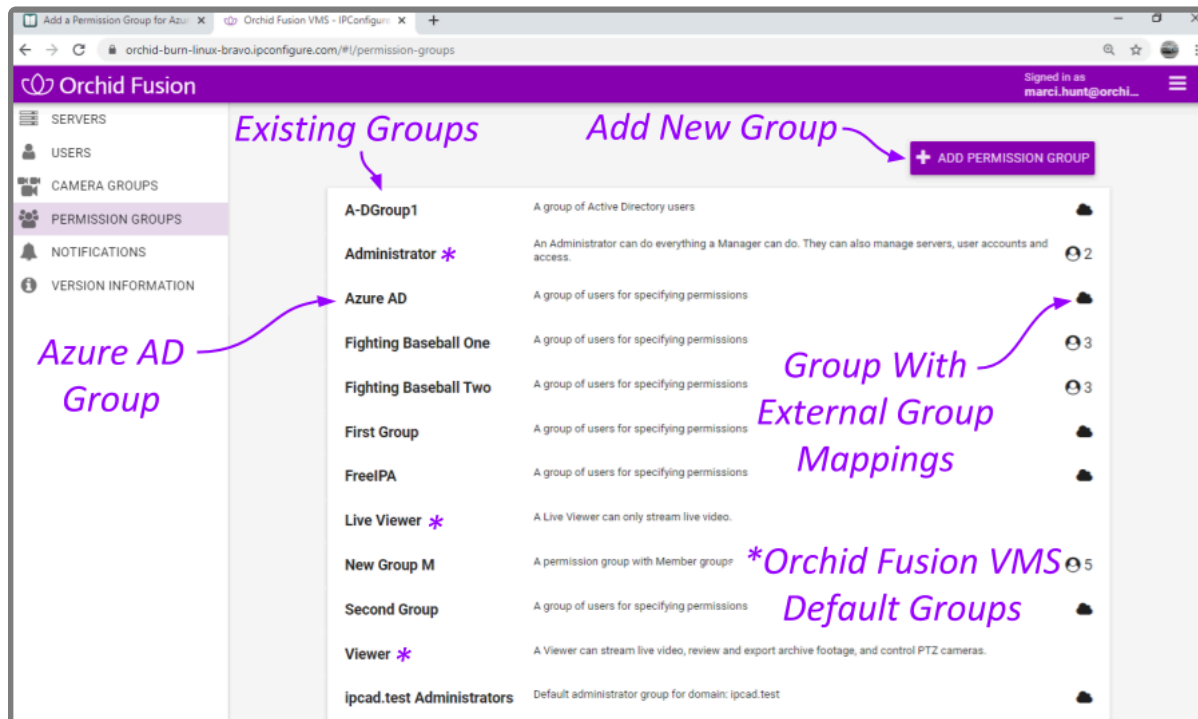
- Group Name and Description:** Points to the group name "A-DGroup1" and its description "A group of Active Directory users".
- Selected Active Directory Groups:** Points to the "External Group Mappings" section, specifically to the listed groups.
- Permissions Granted to the Selected Active Directory Groups:** Points to the "Permissions Granted" section, specifically to the "Abilities" and "Scope" list.

Add a Permission Group for Azure Active Directory

+ This is the **Add** icon.

The *Permissions Group* screen lists all of the *Permission Groups* that have been added. For each of these *Permission Groups*, Orchid Fusion VMS displays a description of the *Permission Group*. If the Fusion configuration file has been modified to add the Azure Active Directory properties (**clientid**, **clientsecret**, **endpoint**, and **domain**), you may add *Permission Groups* that pull users from your Azure Active Directory.

✿ For details on modifying the Orchid Fusion VMS configuration file to add the Azure Active Directory properties, please refer to the [Orchid Fusion VMS Installation Manual](#).



✿ You may use the default *Permission Groups* or add new *Permission Groups* as you deem necessary.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Groups* list. A *New Permission Group* screen will open.

The screenshot shows the 'New Permission Group' dialog box. It has a purple header with a close button. The 'Group Name' field contains 'Azure AD Testers' and the 'Group Description' field contains 'A group of users without Admin permissions'. Below these are search fields for 'Members' and 'Member Groups'. The 'Member Groups' section shows '1 EXTERNAL GROUP MAPPING' with a dropdown arrow. Below this, it says 'External Active Directory, FreeIPA and / or Azure Active Directory groups can be mapped to this permission group.' There is a table with two columns: 'Domain' and 'Group'. The first row shows 'orchidsecurity.com / FusionTesters' as the domain and 'IpconfigureTesters' as the group. To the right of the group name is a plus icon. Below the table is a checkbox for 'Administrator Group'. At the bottom, there are two panels: 'Permissions Granted' (green background) and 'Permissions Revoked' (red background). The 'Permissions Granted' panel has a plus icon and a list of abilities: 'Live', 'Playback', and 'PTZ', each with a close icon. Below the list is a checkbox for 'All Servers, All Cameras'. The 'Permissions Revoked' panel has a plus icon and a button labeled '+ REVOKE PERMISSION'. At the bottom right are 'CANCEL' and 'SAVE GROUP' buttons. Annotations with purple arrows point to various parts of the interface: 'Enter Group Name and Description' points to the Group Name and Group Description fields; 'Click to Expand' points to the dropdown arrow next to '1 EXTERNAL GROUP MAPPING'; 'Select Azure AD Groups' points to the 'Domain' field; 'Click to Add' points to the plus icon next to the group name; and 'Grant and Revoke Permissions' points to the plus icons in both the 'Permissions Granted' and 'Permissions Revoked' panels.

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. Click on **External Group Mapping**.
4. Click in the *Domain* field and enter the name of the domain in which your target Azure Active Directory users exist.
5. Click in the *Group* field and enter the name of the group in which your target Azure Active Directory users exist.
6. Click the **Add** icon to add this new external group. As soon as you add the new external group, another prompt will appear so you can enter another group (if needed).
 - a. If you don't have any additional external groups to add, simply click in the white space to the right of the *Domain* and *Group* fields.
 - b. To remove an external group mapping, click the **Delete/Trash Can** icon to the right of the group name.

* Available members for an Azure Active Directory *Permission Group* include all of the users that are already defined in your Azure Active Directory. For more details, please refer to your Azure Active Directory documentation.

* You may add external groups from Active Directory, Azure Active Directory, and FreeIPA to the same *Permission Group*, if desired.

7. If this *Permission Group* is going to have all of the permissions that an Administrator has (like adding and deleting Orchid Core VMS servers, *Users*, and *Permission Groups*), mark the *Administrator Group* checkbox. (If marked, no other settings will be required.)
8. If this *Permission Group* is going to have specific, limited permissions, use the *Permissions Granted* and *Permissions Revoked* features.
9. After all of the permissions are set, press the **Save Group** button.

The screenshot shows the configuration page for a group named "Azure AD Testers" with the description "A group of users without Admin permissions". The page includes sections for "Members" (None), "Member Groups" (None), and "External Group Mappings" (orchidsecurity.com \ FusionTesters, orchidsecurity.com \ IpconfigureTesters). A large green box titled "Permissions Granted" contains a list of abilities: "Live, Playback, PTZ" and a scope of "All Servers, All Cameras". At the bottom are "DELETE GROUP" and "EDIT GROUP" buttons. Purple annotations with arrows point to the group name/description, the selected Azure Active Directory groups, and the permissions granted to the selected groups.

Azure AD Testers A group of users without Admin permissions

Members
None

Member Groups ⓘ
None

External Group Mappings ⓘ
orchidsecurity.com \ FusionTesters
orchidsecurity.com \ IpconfigureTesters

Permissions Granted

Abilities:
Live, Playback, PTZ

Scope:
✓ All Servers, All Cameras

DELETE GROUP **EDIT GROUP**

Group Name and Description

Selected Azure Active Directory Groups

Permissions Granted to the Selected Azure Active Directory Groups

Add a Permission Group for FreeIPA

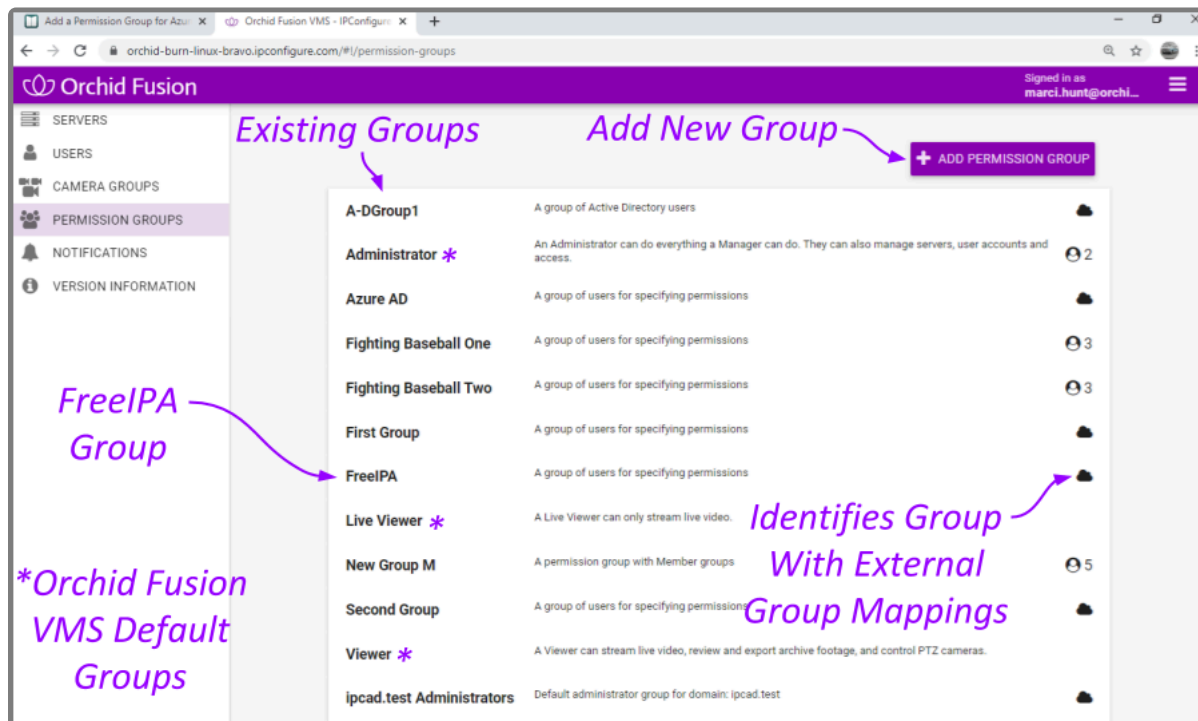


This is the **Add** icon.

The *Permissions Group* screen lists all of the *Permission Groups* that have been added. For each of these *Permission Groups*, Orchid Fusion VMS displays a description of the *Permission Group*. If the Fusion configuration file has been modified to add the FreeIPA servers property, you may add *Permission Groups* that pull users from FreeIPA.



For details on modifying the Orchid Fusion VMS configuration file to add the FreeIPA property, please refer to the [Orchid Fusion VMS Installation Manual](#).



You may use the default *Permission Groups* or add new *Permission Groups* as you deem necessary.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Groups* list. A *New Permission Group* screen will open.

The screenshot shows the 'New Permission Group' dialog box. Annotations include:

- Enter Group Name and Description:** Points to the 'Group Name' and 'Group Description' fields at the top.
- Click to Expand:** Points to the 'Member Groups' section header.
- Select FreeIPA Groups:** Points to the 'example.com / FusionUsers' entry in the 'EXTERNAL GROUP MAPPING' list.
- Click to Add:** Points to the '+' icon next to the 'example.com / FusionUsers' entry.
- Grant and Revoke Permissions:** Points to the 'Permissions Granted' and 'Permissions Revoked' sections at the bottom.

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. Click on **External Group Mapping**.
4. Click in the *Domain* field and enter the name of the domain in which your target FreeIPA users exist.
5. Click in the *Group* field and enter the name of the group in which your target FreeIPA users exist.
6. Click the **Add** icon to add this new external group. As soon as you add the new external group, another prompt will appear so you can enter another group (if needed).
 - a. If you don't have any additional external groups to add, simply click in the white space to the right of the *Domain* and *Group* fields.
 - b. To remove an external group mapping, click the **Delete/Trash Can** icon to the right of the group name.

* Available members for a FreeIPA *Permission Group* include all of the users that are already defined in your FreeIPA directory. For more details, please refer to your FreeIPA documentation.

* You may add external groups from Active Directory, Azure Active Directory, and FreeIPA to the same *Permission Group*, if desired.

7. If this *Permission Group* is going to have all of the permissions that an Administrator has (like adding and deleting Orchid Core VMS servers, *Users*, and *Permission Groups*), mark the *Administrator*

Group checkbox. (If marked, no other settings will be required.)

8. If this *Permission Group* is going to have specific, limited permissions, use the *Permissions Granted* and *Permissions Revoked* features.
9. After all of the permissions are set, press the **Save Group** button.

Sample IPA Group A group of users from FreeIPA

Members
None

Member Groups ⓘ
None

External Group Mappings ⓘ
example.com \ FusionUsers
example.com \ FusionUsers2

Permissions Granted

Abilities:
Live, Playback

Scope:
✓ All Servers, All Cameras

DELETE GROUP **EDIT GROUP**

Group Name and Description

Selected FreeIPA Groups

Permissions Granted to the Selected FreeIPA Groups

Add an “All APPs” Permission Group

+ This is the **Add** icon.

Beginning with version 2.4.0, Orchid Fusion VMS supports the *APPs* feature. When the *APPs* feature is activated, you will have the ability to create a *Permission Group* to define who will have access to one or all of your custom applications. Any users that are in an Administrator Group will automatically have access to the *APPs*. All other users will need to be given specific access.

✿ The *APPs* feature requires additional configuration. Please refer to the [Orchid Fusion VMS APPs](#) section for more details.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Groups* list. A *New Permission Group* screen will open.

The screenshot shows the 'New Permission Group' dialog box with the following fields and annotations:

- Group Name***: Set to 'APPs - All APPs'. An annotation 'Enter Group Name and Description' points to this field.
- Group Description**: Set to 'A group of users with access to all of the APPs'. An annotation 'Enter Group Name and Description' points to this field.
- Members**: Shows 'admin' and 'Mgr2' with 'X' icons. A 'Search for a User' field is present. An annotation 'Select Group Members' points to the 'Search for a User' field.
- Member Groups**: Shows 'Search for a Group'.
- Permissions**:
 - ☐ Administrator Group
 - ☒ All Apps. An annotation 'Designate this as an All APPs Group' points to this checkbox.
- Permissions Granted**:
 - Abilities**: A text input field 'Type an Ability' with a '+' icon. An annotation 'Leave Blank to Keep APPs and Abilities Separate' points to this field.
 - ☒ All Servers, All Cameras
 - REMOVE** button
 - DONE** button
- Permissions Revoked**:
 - Need to revoke access to cameras or features?
 - + REVOKE PERMISSION** button
- Buttons**: **CANCEL** and **SAVE GROUP** buttons at the bottom right.

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. Select a member for the new *Permission Group* by clicking on the *Search for a User* field; this will open a drop-down list of Orchid Fusion VMS users. Find and click on a user. As soon as you select a member, a list will appear so you can make another selection (if needed).
 - a. Press **Esc** if you don't need to select another member.

- b. To remove a member, click the **X** to the right of the member name.

✿ The software provides two locations at which you may assign user permissions. With the *User* feature, you assign user permissions (indirectly) by selecting the *Permission Group(s)* to which the user belongs. With the *Permission Groups* feature, you assign users as members of *Permission Groups* with specific abilities and access. While you don't have to select any members immediately upon adding a *Permission Group*, until you do, the *Permission Group* will essentially be inactive.

4. Click on the *Search for a Group* field to add a Member Group as a member of this group. As soon as you enter a Member Group, a prompt will appear so you can enter another Member Group (if needed).
 - a. Press *Esc* if you don't need to select another Member Group.
 - b. To remove a Member Group, click the **X** to the right of the Member Group name.
5. If this *Permission Group* is going to have access to all of your custom applications, mark the *All APPs* checkbox.
6. If this *Permission Group* is going to have specific, limited permissions to abilities and cameras, use the *Permissions Granted* and *Permissions Revoked* features (but it might be less complicated to leave these blank, essentially keeping standard permissions and *APP* permissions separate).

✿ When you grant a user permission to an *APP*, the system accounts for the cameras that the user has access to, so there may be no need to grant and revoke standard permissions again. By default, each new *Permission Group* will be granted *Live* abilities for *All Servers*, *All Cameras*. If you want to keep your typical permissions separate from the *APPs* permissions, *make sure no abilities are selected*.

7. After all of the permissions are set, press the *Save Group* button.

Add a Permission Group for Selected APPs



This is the **Add** icon.

1. Click the **Add Permission Group** button in the top-right corner of the *Permission Groups* list. A *New Permission Group* screen will open.

The screenshot shows the 'New Permission Group' screen with the following fields and annotations:

- Group Name ***: Labeled 'Enter Group Name and Description' with a purple arrow pointing to the input field.
- Group Description**: Labeled 'Enter Group Name and Description' with a purple arrow pointing to the input field.
- Members**: Contains a search bar 'Search for a User' and a list of members: 'csteadman X', 'bindorato X', 'testuser X'. A purple arrow points to the search bar with the label 'Select Group Members'.
- Member Groups**: Contains a search bar 'Search for a Group'. A purple arrow points to the search bar with the label 'Select One or More Specific APPs'.
- Apps**: Contains a search bar 'Search for an App' and a list of apps: 'Motion Alert X'. A purple arrow points to the search bar with the label 'Leave Blank to Keep APPs and Abilities Separate'.
- Permissions Granted**: A green box with a plus icon and a search bar 'Type an Ability'.
- Permissions Revoked**: A pink box with a plus icon and a button 'REVOKE PERMISSION'.

2. Enter a name and a description for the new *Permission Group* in the *Group Name* and *Group Description* fields.
3. Select a member for the new *Permission Group* by clicking on the *Search for a User* field; this will open a drop-down list of Orchid Fusion VMS users. Find and click on a user. As soon as you select a member, a list will appear so you can make another selection (if needed).
 - a. Press **Esc** if you don't need to select another member.
 - b. To remove a member, click the **X** to the right of the member name.



The software provides two locations at which you may assign user permissions. With the *User* feature, you assign user permissions (indirectly) by selecting the *Permission Group(s)* to which the user belongs. With the *Permission Groups* feature, you assign users as members of *Permission Groups* with specific abilities and access. While you don't have to select any members immediately upon adding a *Permission Group*, until you do, the *Permission Group* will essentially be inactive.

4. Click on the *Search for a Group* field to add a Member Group as a member of this group. As soon as you enter a Member Group, a prompt will appear so you can enter another Member Group (if needed).

- a. Press **Esc** if you don't need to select another Member Group.
 - b. To remove a Member Group, click the **X** to the right of the Member Group name.
5. If this *Permission Group* is going to have access to specific custom applications, click on the *Search for an APP* field. As soon as you select an *APP*, a prompt will appear so you can select another *APP* (if needed).
 - a. Press **Esc** if you don't need to select another *APP*.
 - b. To remove an *APP*, click the **X** to the right of the *APP* name.
6. If this *Permission Group* is going to have specific, limited permissions to abilities and cameras, use the *Permissions Granted* and *Permissions Revoked* features (but it might be less complicated to leave these blank, essentially keeping standard permissions and *APP* permissions separate).

✿ When you grant a user permission to an *APP*, the system accounts for the cameras that the user has access to, so there may be no need to grant and revoke standard permissions again. By default, each new *Permission Group* will be granted *Live* abilities for *All Servers*, *All Cameras*. If you want to keep your typical permissions separate from the *APPs* permissions, *make sure no abilities are selected*.

7. After all of the permissions are set, press the **Save Group** button.

Edit Permission Group



This is the **Edit** pencil icon.

The *Permission Groups* can be changed at any time through the *Permission Groups* screen.

1. Click on one of the *Permission Groups* in the *Permission Groups* list. The entry will expand to display all of the *Permission Group* settings.
2. To edit the *Permission Group*, click the **Edit Group** button at the bottom of the expanded entry. The *Edit Group* screen will open.
3. Edit any of the available fields, as needed.
4. Click the **Save Group** button. All of the changes will be effective immediately.

Delete Permission Group



This is the **Delete / Trash Can** icon.

1. Click on one of the *Permission Groups* in the *Permission Groups* list. The entry will expand to display all of the *Permission Group* settings.
2. To delete the *Permission Group*, click the **Delete Group** button at the bottom of the expanded entry.
3. The software will ask for confirmation before deleting the *Permission Group*.
4. Click the **Delete** button. The *Permission Group* will be deleted immediately.

Notifications

Beginning with version 2.6.0, Orchid Fusion VMS Administrators have the ability to configure *Notifications*. A *Notification* will send an alert to selected recipients when a defined trigger event occurs. More specifically, the system may be configured to monitor for a camera or server becoming unavailable, a server error, or an I/O error.

In many cases, a single, somewhat global *Notification* will fulfill your needs. Other situations, however, may demand more flexibility. The *Notifications* feature manages these additional demands by allowing customized scope (one or more cameras, one or more servers), combinations that use multiple triggers and actions, as well as multiple SMTP servers (if necessary).



Use of this feature is optional, but recommended by IPConfigure, because it can help to minimize gaps in video availability by identifying problems quickly.

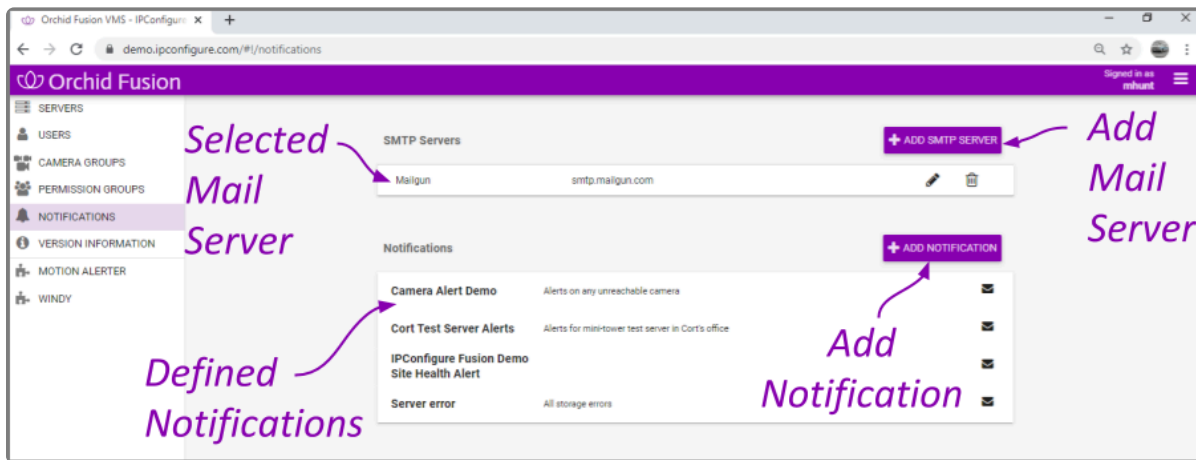
If you are taking the time to configure *Notifications*, you should consider setting a custom, public URL for the Fusion server. Starting with Orchid Fusion VMS version 2.6.2, this public URL will be displayed in *Notification* emails. To set this public URL, you'll need to edit the Fusion configuration file.

For details, please refer to the *Fusion Server Settings* section of the [Orchid Fusion VMS Installation Guide](#).

Access the Notifications Screen

1. Open the *System Menu* in the top-right corner of the screen and select *Notifications*.

The Orchid Fusion VMS *Notifications* screen will appear. This screen displays a list of all the current SMTP Servers and *Notifications*, and gives you the ability to add, edit, and delete them.



- Click on any row that represents an SMTP Server to open the *Edit* dialog.
- Click on any row that represents a *Notification* to expand or collapse the *Notification* details. (When expanded, you may elect to delete or edit the *Notification*.)

Add an SMTP Server



This is the **Add** icon.

Before any email alerts can be sent, at least one Simple Mail Transfer Protocol (SMTP) Server must be configured. Generally, only one SMTP server is required, but this will depend on how (and perhaps to whom) you want to send alerts. If you, for example, want to send alerts to both internal and external recipients, you may also want these to be routed through different servers. In this case, you would need more than one SMTP server.



If you don't currently have access to an SMTP server, you might try mailgun (which is easy to set up and inexpensive to use).

1. Click the **Add SMTP Server** button in the top-right corner of the *Notifications* screen. A New SMTP Server screen will open.

2. First, enter a name for the new SMTP Server.
3. Then enter the address for the new server. (Example: smtp.mailgun.org) If you don't specify a port number in the address, the system will use default port number 587.
4. Mark the *Enable TLS* checkbox if you need to add Transport Layer Security. (In order to use TLS, the SMTP Server you are adding must support a secure connection.)
5. Next, enter the credentials that allow you to use the selected mail server (SMTP username and password).
6. If you need to add custom settings for the SMTP server, click the down arrow to access the *Custom Settings (Advanced)* fields.
 - a. Use the *Key* field and the *Value* field to enter necessary info.

- b. Click the **+** icon to finalize the custom setting.
- c. Click the **Trashcan** icon to delete a custom setting.



These custom settings are being made available in the unlikely event they will be needed. If you'd like to learn more about these custom settings, please reference this public resource: <https://javaee.github.io/javamail/docs/api/com/sun/mail/smtp/package-summary.html>

7. If you want to verify the SMTP server, click the **Send Test Email** button.
 - a. Enter the email address for the test message, then click the **Send** button.
8. Once all the settings have been entered, click the **Save SMTP Settings** button to save the server.

Add a Notification



This is the **Add** icon.

As mentioned earlier, you may configure one or more notifications, depending on your needs. We'll cover each of the basic options step-by-step to show what's available.

If you are trying to decide whether to create just one or multiple *Notifications*, you'll need to have an understanding of how they work. An *Immediate Email* alert is pretty simple; if a valid trigger event occurs, the system will send an email with details on the trigger event. If you set up a *Daily Email Digest* alert, the system will send a daily summary of the trigger events that have been defined within that *Notification* (even if none of the trigger events occurred). For example, assume you have a *Notification* that monitors for *Server Unreachable* events only. During the day, two *Camera Unreachable* events occur, but no *Server Unreachable* events occur. Your next *Daily Email Digest* will report that "No notifications were sent today" because it is only monitoring for *Server Unreachable* events. (As an added benefit, the *Daily Email Digest* will confirm that the alert system is working, even when no events occur.)

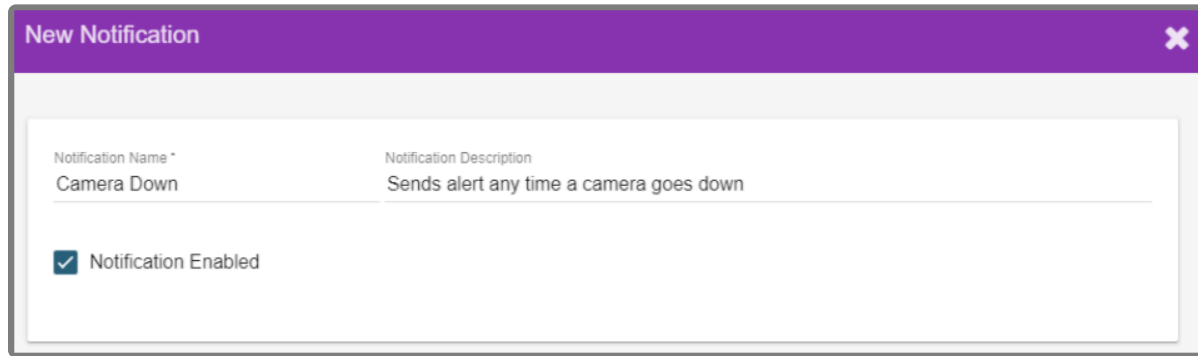
You'll also want to consider what recipients want or need to know. While front line people may want to be alerted each time a camera goes down, upper level personnel may only want to know if a server goes down (which is obviously a larger problem). In this situation, you would need to configure at least two *Notifications*: one Immediate alert that covers cameras (and perhaps servers), and one Immediate alert for servers.

You may, instead, have upper level personnel that prefer to receive a daily summary (that covers all types of issues). In this situation, you can simply add a *Daily Email Digest* action item to any or all of the defined *Notifications*.



The *Notification* dialog has several key sections: the description (at the top), one or more *Notification Triggers*, and one or more *Actions*. You may need to use the scroll bar along the right edge of the dialog to view and work with each of these elements.

1. Click the **Add Notification** button at the top-right corner of the *Notifications* list. The *New Notification* screen will open.



New Notification

| Notification Name * | Notification Description |
|---------------------|---|
| Camera Down | Sends alert any time a camera goes down |

☒ Notification Enabled

2. Enter a name for the *Notification* in the *Notification Name* field. (Email alerts sent for this *Notification* will use this *Notification Name* as the email subject.)
3. Enter a general definition for the *Notification* in the *Notification Description* field.
4. Mark the *Notification Enabled* checkbox to activate the *Notification*. (Remove the mark from the *Notification Enabled* checkbox to deactivate the *Notification*.)
5. Scroll down to the *Notification Triggers* section to continue.

Notification Triggers

In the *Notification Triggers* section, you may select one or more events that may initiate a *Notification*. (Notice that by default, the *New Notification* dialog includes a *Camera Unreachable* trigger, a *Server Unreachable* trigger, and a *Server Error* trigger. Scroll down to view all of these and remove any triggers that you don't wish to use.)

Camera Unreachable/Server Unreachable Trigger

1. Click on the *Trigger Event* drop-down list and select *Camera Unreachable* or *Server Unreachable*. The settings for the *Camera Unreachable* and *Server Unreachable* triggers are very similar.

The screenshot shows the 'Edit Camera Alert' dialog box. It has a purple header bar with the title 'Edit Camera Alert' and a close button. Below the header is a section titled 'Notification Triggers'. Inside this section, there is a 'Trigger Event' dropdown menu currently set to 'Camera Unreachable'. Below this, there are two text fields for timing: 'A notification will be sent when a camera becomes unreachable for 5 minutes.' and 'The camera must be online for 5 minutes before another notification will be sent.' Below these fields is a checkbox labeled 'Any Camera'. Underneath the checkbox is a section titled 'Only These Cameras' which contains three camera selection buttons: 'IPConfigure Office All Cameras', 'Testing Server 01', and 'Testing Server 04'. Below the camera selection buttons is a 'Search' field. At the bottom of the 'Notification Triggers' section are two buttons: a red 'REMOVE' button and a grey 'DONE' button. Below the 'Notification Triggers' section is a purple button labeled '+ ADD ANOTHER TRIGGER'. At the very bottom of the dialog are two buttons: a grey 'CANCEL' button and a purple 'SAVE NOTIFICATION' button. Three purple annotations with arrows point to specific elements: 'Select Trigger' points to the 'Trigger Event' dropdown, 'Selectable Timing' points to the first timing field, and 'Select Cameras or Servers' points to the camera selection buttons.

2. Determine how long the camera/server must be unreachable before an alert is sent. Enter this number in the first minutes field.
3. Determine how long the camera/server must be back online before another unreachable event may qualify as a trigger. Enter this number in the second minutes field. (These timing settings help to eliminate nuisance alerts.)
4. Mark the *Any Camera* checkbox if you want to be alerted when any camera goes offline. (Mark the *Any Server* checkbox if you want to be alerted when any server goes offline.) Then you can click into the *Search* field if you want to exclude any cameras (or servers).
5. Unmark the *Any Camera* (*Any Server*) checkbox if you prefer to select specific cameras (or servers) for the alert. Then click in the *Search* field to identify those cameras (or servers).
6. Click the **Remove** button if you want to delete this trigger.
7. Click the **Done** button if you want to save this trigger.
8. If you would like to define another alert trigger, scroll to the next default trigger (if applicable), or click the **Add Another Trigger** button. (You may add multiple triggers, just keep in mind that they will all be sent to selected recipients. You may have to scroll down to find this button.)
9. If you are finished with trigger settings, remove any unwanted triggers, then scroll down to the *Actions* section to continue.

Server Error Trigger

1. Click on the *Trigger Event* drop-down list and select *Server Error*.

If you select a *Server Error* trigger, there are three events that will cause the system to send an alert.

- A selected Orchid server restarts
 - A selected Orchid server enters a degraded state (due to storage device error or license error). (This event can only be detected on Orchid servers running Orchid version 2.4.0 or greater.)
 - At least one of an Orchid server's cameras has a problem. (It is running and configured for Continuous Recording or Motion Adaptive Frame Rate, but no new video archives have been written in the last 3 minutes.)
2. Determine how long you want the system to wait (in minutes) before sending any other *Server Error* alert, then enter this number in the minutes field.
 3. Mark the *Any Server* checkbox if you want to be alerted when a *Server Error* occurs on any server. Then you can click into the *Search* field if you want to exclude any servers.
 4. Unmark the *Any Server* checkbox if you want to select specific servers for the alert. Then click in the *Search* field to identify those servers.
 5. Click the **Remove** button if you want to delete this trigger.
 6. Click the **Done** button if you want to save this trigger.
 7. If you would like to define another alert trigger, scroll to the next default trigger (if applicable), or click the **Add Another Trigger** button. (You may add multiple triggers, just keep in mind that they will all be sent to selected recipients. You may have to scroll down to find this button.)
 8. If you are finished with trigger settings, remove any unwanted triggers, then scroll down to the *Actions* section to continue.



For more information on the Orchid degraded state, please refer to the [Orchid Core VMS Administrator Guide](#).

* For a more detailed review of *Server Error Notifications*, please refer to the [Understanding Server Error Notifications](#) knowledge base article on our website.

I/O Error Trigger

1. Click on the *Trigger Event* drop-down list and select *I/O Error*.

The screenshot shows the 'New Notification' dialog box with a purple header and a close button. It contains two sections for configuring notification triggers. The first section, titled 'Notification Triggers', shows the 'Trigger Event' dropdown set to 'I/O Error'. A purple arrow points to this dropdown with the text 'Select Trigger'. Below this, a text field shows 'A notification will be sent as soon as possible when video files cannot be written to disk due to insufficient storage throughput with at least 5 minutes between notifications.' A purple arrow points to the '5' with the text 'Selectable Timing'. Below this is a checkbox labeled 'Any Server' which is checked. A purple arrow points to it with the text 'Select All Servers or Specific Servers'. Below the checkbox is a 'Search' field. A red 'REMOVE' button is on the left and a 'DONE' button is on the right. The second section shows the 'Trigger Event' dropdown set to 'Server Unreachable'. Below this, a text field shows 'A notification will be sent when a server becomes unreachable for 5 minutes.' At the bottom right are 'CANCEL' and 'SAVE NOTIFICATION' buttons.

If you select the *I/O Error* trigger, the system will send an alert if it detects that video files (for a selected server) cannot be written to the disk fast enough to complete the write. (This event can only be detected on Orchid servers running Orchid version 2.4.0 or greater.)

2. Determine how long you want the system to wait (in minutes) before sending any other *I/O Error* alert, then enter this number in the *minutes* field.
3. Mark the *Any Server* checkbox if you want to be alerted when an *I/O Error* occurs on any server. Then you can click into the *Search* field if you want to exclude any servers.
4. Unmark the *Any Server* checkbox if you want to select specific servers for the alert. Then click in the *Search* field to identify those servers.
5. Click the **Remove** button if you want to delete this trigger.
6. Click the **Done** button if you want to save this trigger.
7. If you would like to define another alert trigger, scroll to the next default trigger (if applicable), or click the **Add Another Trigger** button. (You may add multiple triggers, just keep in mind that they will all

be sent to selected recipients. You may have to scroll down to find this button.)

8. If you are finished with trigger settings, remove any unwanted triggers, then scroll down to the *Actions* section to continue.



For a more detailed review of *I/O Error Notifications*, please refer to the [Understanding I/O Error Notifications](#) knowledge base article on our website.

Actions

In the *Actions* section, you will select which alert type will be generated by the *Notification* and to whom the alert will be sent.

1. Click on the *Trigger Action* drop-down list to select one of two options: *Immediate Email* or *Daily Email Digest*.

If you select *Immediate Email*, a *Notification* will be sent each time a valid trigger event occurs.

If you select *Daily Email Digest*, a *Notification* will be sent at the same time each day (at a selected time). This alert will summarize all of the alerts that were sent in the previous 24-hour period that pertain to this *Notification*. This alert will be sent even if no triggered alerts occurred (so you can tell that the system is working).

New Notification

Trigger Action
Daily Email Digest

Send Digest At (EDT)
16 : 00

A daily email containing a digest of all triggered events will be sent to Orchid Fusion VMS Users, Permission Group members, and any additional email addresses provided.

Users
mhunt X Search for a User

Permission Groups
Search for a Group

Emails
SampleUser@Biz.com X Type an email

SMTP Server
Mailgun

SMTP From-Address
noreply@example.com

REMOVE

DONE

CANCEL SAVE NOTIFICATION

Timing for Daily Digest

Select Internal Recipients

Select External Recipients

Select SMTP Server

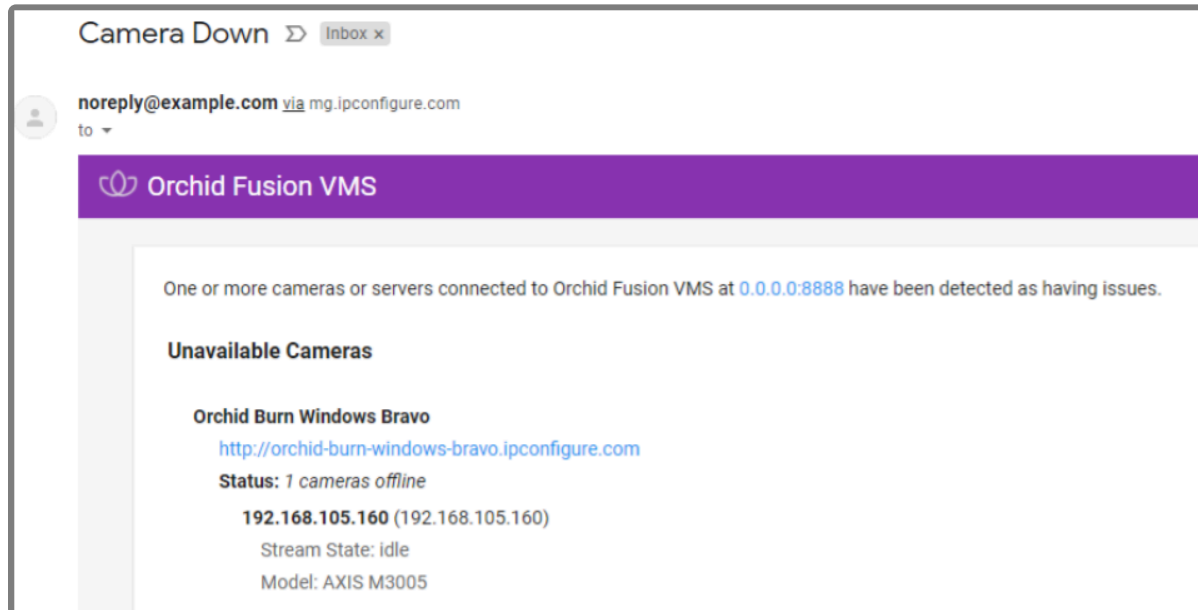
2. If you select *Daily Email Digest*, use the *Send Digest At* field to define the send time for the daily alert.
3. Once the trigger action is selected, you need to select the recipients for the alert.
 - a. Click in the *Search for a User* field to select individual users as recipients.
 - b. Click in the *Search for a Group* field to select entire *Permission Groups* as recipients.
 - c. Click in the *Type an Email* field to enter the email addresses for external recipients.
4. The last action setting allows you to select the SMTP Server that will send the alert. If only one SMTP server was configured, it will already be selected for you. If you need to select a different one, click on the *SMTP Server* drop-down list to select it.
 - a. If you want to include a custom return email address with the alert, click in the *SMTP From-Address* field to enter it.
5. Click the **Remove** button if you want to delete this action.
6. Click the **Done** button if you want to save this action.
7. Click the **Add Another Action** button to define another action. (You may add multiple actions if, for example, you want to define both an *Immediate Email* and a *Daily Email Digest*, or if you are using different SMTP servers. You may have to scroll down to find this button.)
8. When you are finished with all of the settings, click the **Save Notification** button to keep this *Notification*. This new *Notification* will now appear in the *Notifications* list.

✿ Each *Notification* requires at least one completely defined trigger and one defined action (including at least one recipient with an email address). If any of these elements are missing, the *Notification* will be listed, but will display an error. Most of these incomplete

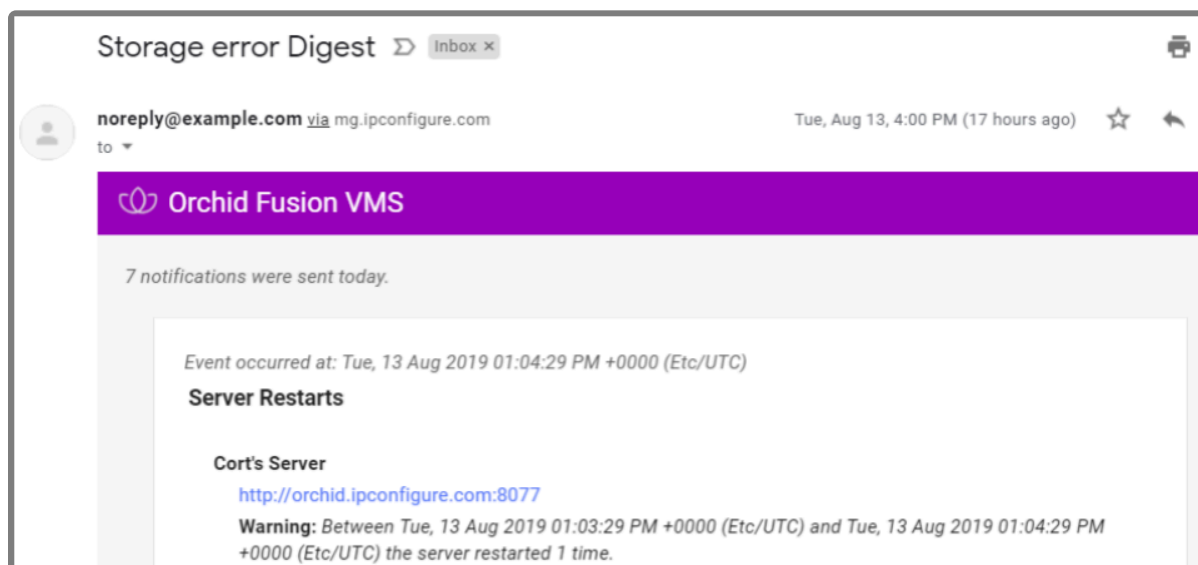
Notifications will result in no alerts being sent. If the incomplete *Notification* is a *Daily Email Digest*, a daily alert will be sent that says no alerts were sent.

Sample Notifications

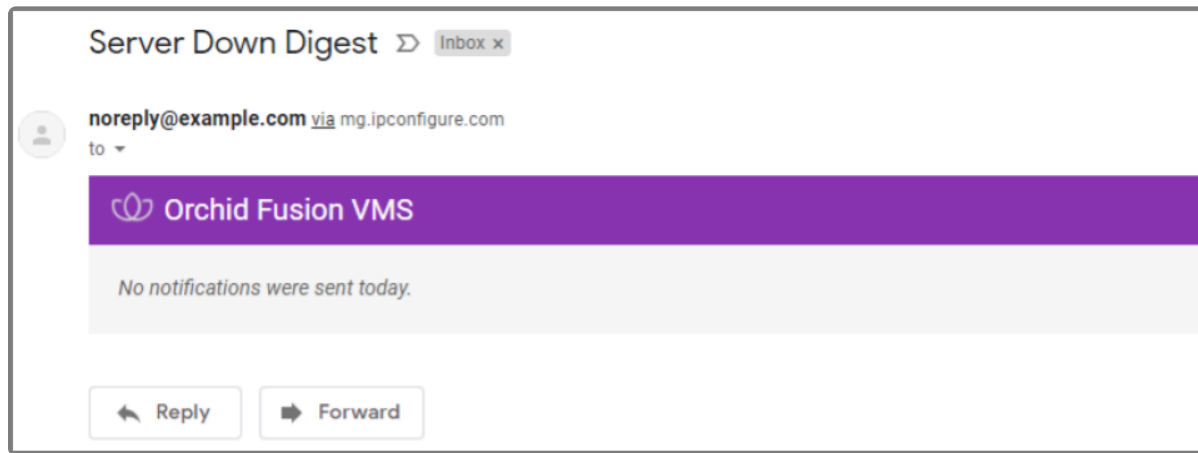
The following is an example of an *Immediate Email* alert for a *Camera Unreachable* trigger event. It lists the camera's IP address, along with the camera type. It also includes a link to the Orchid Core VMS Server (on which the camera is registered).



The following is the top section of a sample *Daily Email Digest* alert that shows multiple *Server Restarts* and *Server Degraded* events. The alert includes event timing and server information.



The following is an example of a *Daily Email Digest* alert with no *Notifications* to report



Edit SMTP Server



This is the **Edit** pencil icon.

The *SMTP Server* can be changed at any time through the *Notifications* screen.

1. To edit the *SMTP Server*, click the **Edit** pencil icon at the right end of the server entry. The *Edit* screen will open.
2. Edit any of the available fields, as needed.
3. Enter the *SMTP* password.
4. Click the **Save SMTP Settings** button. All of the changes will be effective immediately.

Delete SMTP Server



This is the **Delete / Trashcan** icon.

1. To delete the *SMTP Server*, click the **Trashcan** icon at the right end of the server entry.
2. Click the **Delete** button to confirm. The *SMTP Server* will be deleted immediately.

Edit Notification



This is the **Edit** pencil icon.

The *Notifications* can be changed at any time through the *Notifications* screen.

1. Click on one of the *Notifications* in the *Notifications* list. The entry will expand to display all of the *Notification* settings.
2. To edit the *Notification*, click the **Edit Notification** button at the bottom of the expanded entry. The *Edit* screen will open.
3. Edit any of the available fields, as needed.
 - a. The general details (name, description, enable/disable) are immediately available for editing.
 - b. To edit one of the triggers, click the **Edit** pencil icon at the lower-right corner of the trigger listing.
 - c. To add another trigger, click the **Add Another Trigger** button.
 - d. To edit one of the actions, click the **Edit** pencil icon at the lower-right corner of the action listing.
 - e. To add another action, click the **Add Another Action** button.
4. When all changes are complete, click the **Save Notification** button. All of the changes will be effective immediately.

Delete Notification



This is the **Delete / Trashcan** icon.

1. Click on one of the *Notifications* in the *Notifications* list. The entry will expand to display all of the *Notifications* settings.
2. To delete the entire *Notification*, click the **Delete Notification** button at the bottom of the expanded entry.
3. Click the **Delete** button to confirm. The *Notification* will be deleted immediately.

Orchid Fusion VMS APPs

Beginning with version 2.4.0, Orchid Fusion VMS supports the Application Partner Platform (APP) feature. The *APPs* component allows third-party vendors to customize Orchid Fusion VMS by creating features that live within the Orchid Fusion VMS user interface. This feature is being offered to IPConfigure partners, each of whom must have a digital certificate provided by IPConfigure to develop these *APPs*.



For more information on becoming a partner and creating *APPs*, please go to the IPConfigure [website](#).

To Activate the APPs Feature in Orchid Fusion VMS

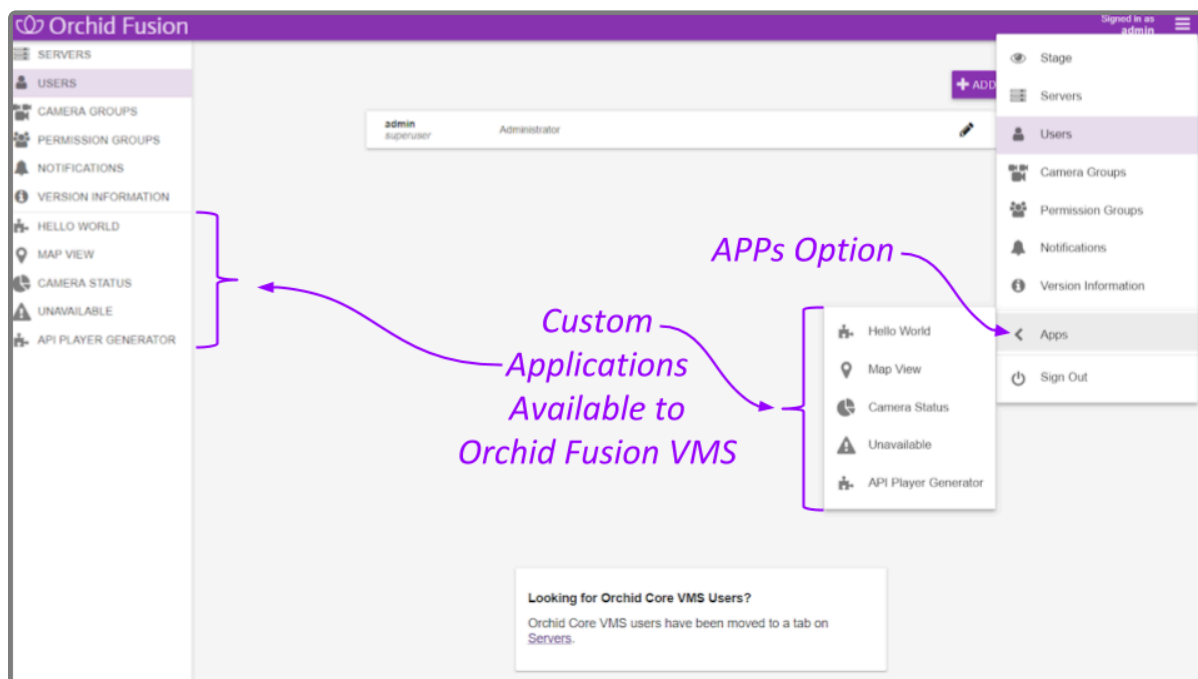
Access to the *APPs* feature requires that you modify the Orchid Fusion VMS configuration file. This modification configures the system file path of the installed custom application. Once Orchid Fusion VMS knows where to find the *APPs*, the program will respond by providing the *APPs* option on the *System Menu*.

Access the Orchid Fusion VMS APPs Feature

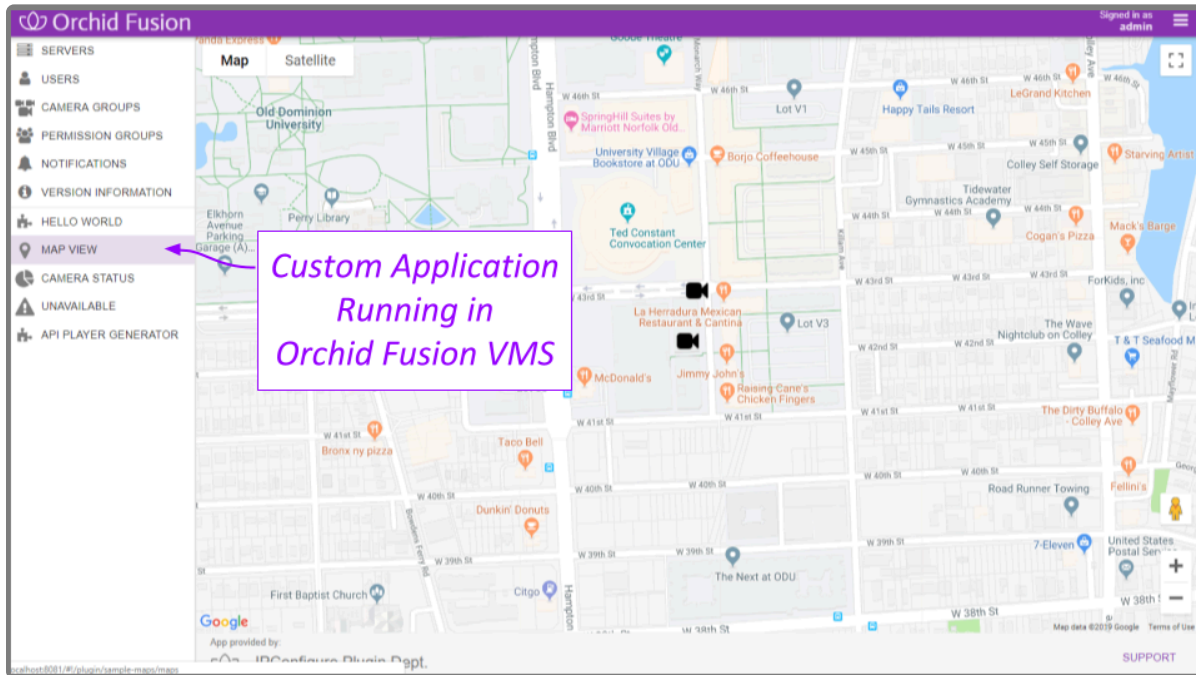
Once the *APPs* feature is activated, you can access your custom applications within Orchid Fusion VMS.

✿ To access the *APPs* feature, you must be a member of an Administrator *Permission Group*, or a *Permission Group* that grants permissions to one or more *APPs*.

1. Open the *System Menu* in the top-right corner of the screen and select *APPs*.
2. The *APPs* sub-menu will appear. This sub-menu will list all of the custom applications that Orchid Fusion VMS finds in the location noted in the Fusion properties file. (Notice that all of your custom applications are now also listed on the *Configuration Menu*, when visible, on the left side of the screen.)





3. Click on one of the custom applications to open it within Orchid Fusion VMS.



Other Administrator Features

There are a couple of features in Orchid Fusion VMS that Administrators have special permissions for. These include the *Stages* feature and *PTZ Presets*. This guide will provide details that pertain solely to Administrators. Please refer to the [Orchid Fusion VMS User Guide](#) for general operating instructions for these features.

Sharing Stages

| | |
|---|---------------------------------|
|  | This is the World icon. |
|  | This is the Locked icon. |

All users have the ability to use the *Stages* feature, create their own *Stages*, and customize the *Stages* cycle. As an Administrator, you have the added ability to share *Stages* with other users. This gives you the opportunity to focus the team's attention in certain areas, if needed, and better manage the monitoring system.

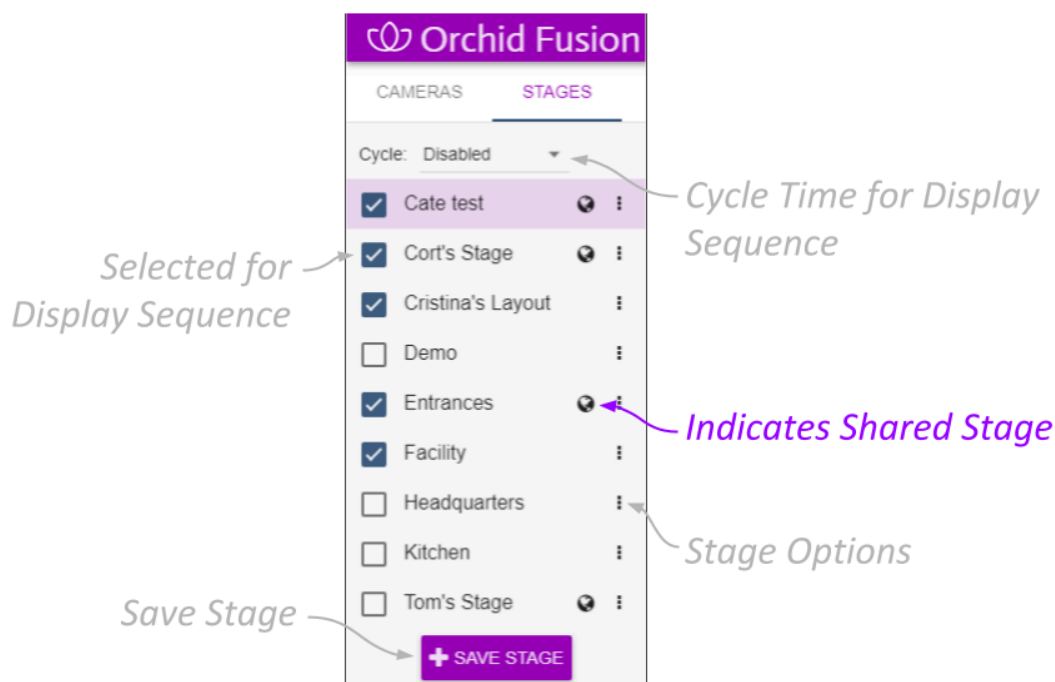
About the Stages Feature

The *Stages* feature allows you to create custom layouts for the *Stage* featuring Players that you select and arrange. You can then view your *Stages* on demand or as part of an automated cycle. This is a great tool for helping you and your monitoring team remain organized and efficient.

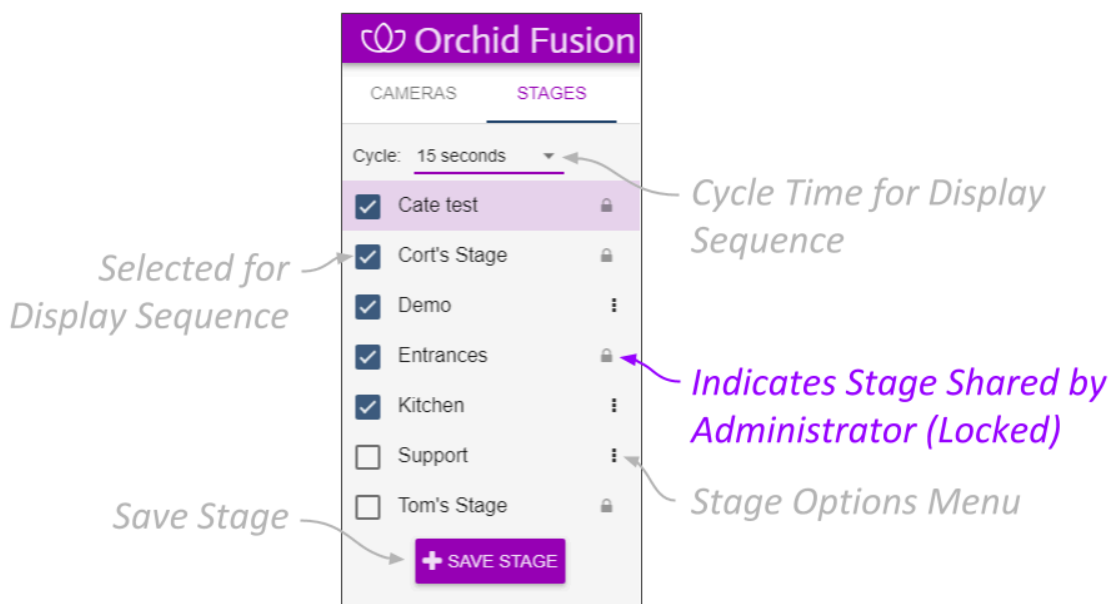
When a user creates and saves a *Stage*, it is saved in the user's account. When an Administrator shares a *Stage*, it is visible to every user that has access to at least one of the cameras in the *Stage*. Shared *Stages* do not override the *Permission Groups*; users will not see any cameras they don't have permission to see.

✿ If a *Stage* includes a PTZ camera (with or without presets), keep one thing in mind. When you add a camera to the *Stage*, you are adding the camera, not the camera's position. So when you view a *Stage*, the PTZ camera may or may not be in the same position as when it was added to the *Stage*.

As an Administrator, when you share a *Stage*, you will see a *world* icon that indicates that it is shared:

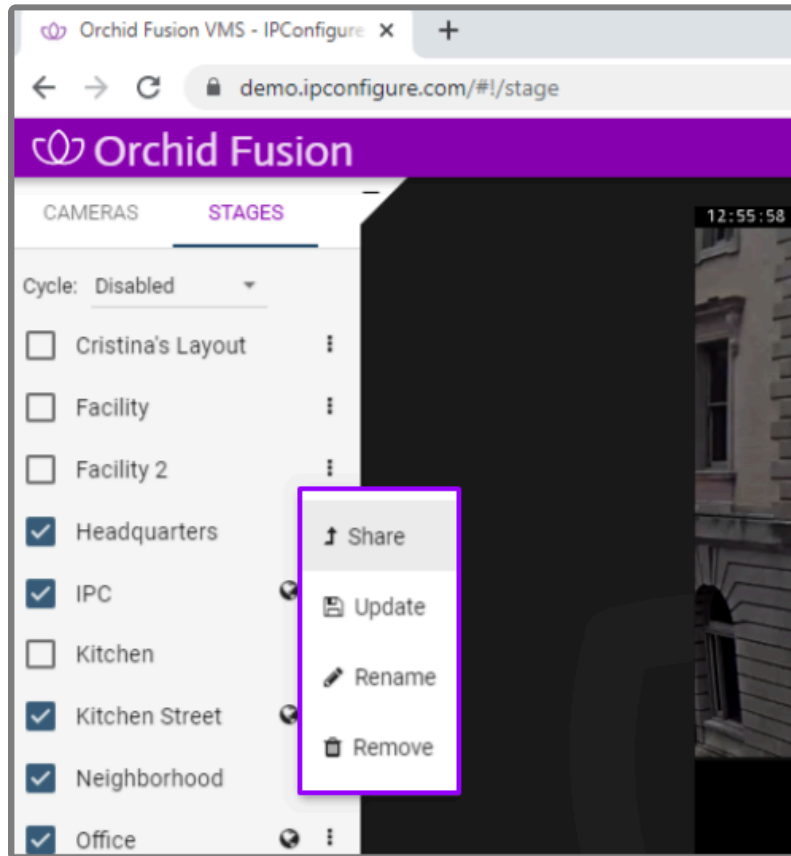


Users will see a **Lock** icon next to the shared *Stage*. They will not be able to modify or delete the *Stage*:



Sharing a Stage

When you access the *Stages* tab of the *Camera Bag*, you will notice that each of the *Stages* has its own pop-up menu (on the right edge of the list). The Administrator's version of the pop-up menu makes it easy to share a *Stage*.



1. Click on the pop-up menu that corresponds to the *Stage* you want to share.
2. Then click **Share**.

Revoking a Shared Stage

1. Click on the pop-up menu that corresponds to the *Stage* you want to un-share.
2. Click **Un-share**.

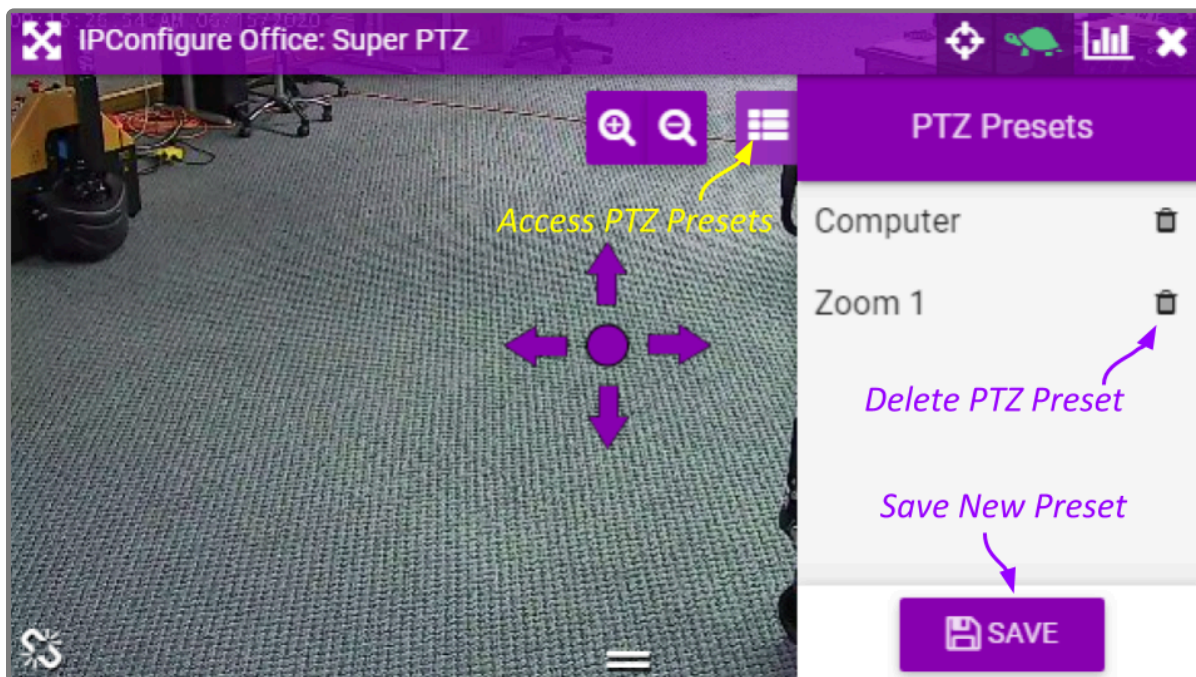
Managing PTZ Presets

All users that have permissions to control PTZ cameras will also have the ability to use the *PTZ Presets*. As an Administrator, you have the added ability to create the *PTZ Presets* that will be available to those other users. This provides you with another tool to focus the team's attention in certain areas, while eliminating the man-hours needed to manually reposition the camera every time.

- * The *PTZ Presets Menu* will only be available if the camera supports presets, the camera is registered to an Orchid Core VMS server running Orchid version 2.2.2 or greater, the PTZ controls are active, and an Administrator has saved at least one preset.

Adding and Deleting a Preset

1. Access the *PTZ Presets Menu* by activating the PTZ controls, then clicking on the **Hamburger** icon at the top-left of the Player. A list of existing *Presets* will appear.



2. To select a different preset view, click on any of the *Presets* in the list. The camera will respond by moving to the selected position.
3. To add a new preset, first use the pan, tilt, and zoom controls to situate the camera in the desired position. Then click the **Save Preset** button. Enter a unique name for the new preset, then click the **Save Preset** button again.
4. To delete a preset, click the **Trash Can** icon (to the right of the preset name), then click the **Delete** button.

Advanced Topics

As you work with Orchid Fusion VMS, you may encounter issues that are not typical of daily operation and should be addressed by an advanced user. Please review these topics if you need extra help. For in-depth explanations and additional topics, we encourage you to check our [Knowledge Base](#).

Recovering an Orchid Core VMS Server

There are some instances in which an Orchid Core VMS server will become unavailable to Orchid Fusion VMS. When this happens, as long as you have permissions to access the server, you will notice all of the following in relation to the unavailable Orchid Core VMS server:



- Any cameras on the *Stage* will display an error
- The *Users* list will display “Failed to fetch users”
- The *Servers* list will display “Orchid server is unavailable”

The Orchid Core VMS server may be unavailable for a number of reasons, including:

- The Orchid Core VMS server is down
- There is a problem with the network
- There is a password/authentication issue

Possible Fixes

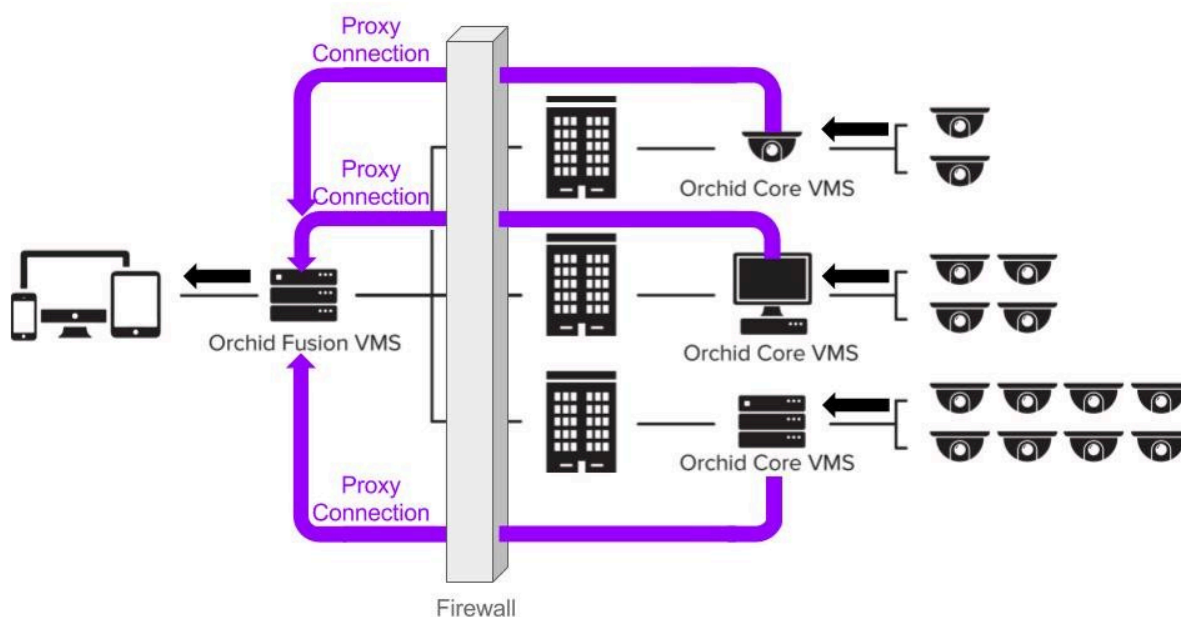
1. The first and easiest potential fix is to *Recover this Orchid Server* (which is documented in the [Edit Orchid Core VMS Server Settings](#) section of this guide).
2. Verify that the logged in user has access to the Orchid Core VMS server.
3. Check the network for broken connections, improper addressing, outages, etc.
4. Check the condition of the Orchid Core VMS server.
5. A less desirable fix is to delete the Orchid Core VMS server and then add it back into the Orchid Fusion VMS system. (Refer to the *Adding and Managing Orchid Core VMS Servers* section for instructions on how to delete and add a server.)



With the last method, you will lose any Orchid Fusion VMS permissions that were configured using the original server.

How Orchid Fusion VMS's Proxy Works

The video streams you see in the Orchid Fusion VMS user interface are optimally delivered to your web browser using Orchid Fusion VMS's sophisticated routing engine. When an Orchid Core VMS server is registered in Orchid Fusion VMS, a proxy connection becomes available from the Orchid Fusion VMS server to the Orchid Core VMS server. When an Orchid Core VMS server is not directly accessible to your web browser (because it's behind a firewall, for instance), this connection allows Orchid Fusion VMS to relay all the web and video data from the Orchid Core VMS server, through Orchid Fusion VMS, to your web browser. This method eliminates the need to create and maintain firewall rules to provide access to the Orchid Core VMS servers and cameras.



If your web browser can communicate with an Orchid Core VMS server, video is delivered directly from Orchid Core VMS to your client browser. This approach maximizes performance while minimizing bandwidth usage, hosting costs, and custom network configuration.

To Force Proxy Mode

There is a way to force Orchid Fusion VMS to use the proxy method even if the situation wouldn't normally require it.

1. Open Orchid Fusion VMS and sign in.
2. Go to the *Stage* screen.
3. Add the following text to the end of the URL in the web browser address bar: **?force-proxy=true**
4. Click the **Reload** button. (The **Enter** key will not do the trick.)

Trouble Viewing the Camera Stream in Orchid Fusion VMS

If Orchid Fusion VMS is not receiving a live video stream from a camera on an available Orchid Core VMS server, the problem is likely due to a problem between the camera and the Orchid Core VMS server.

Possible Fixes

1. Try to refresh the camera in Orchid Fusion VMS. (Refer to the instructions on how to [Refresh Cameras](#).)
2. Use the [System Status](#) feature to test the camera preview, restart the camera stream, or verify the network connection between the camera and Orchid Core VMS. (This may lead you to try the [Recover Camera](#) feature.) You may also perform the check associated with packet loss (see note below).
3. If the network connection is OK, but you still aren't getting video, physically check the camera to make sure it is intact and connected to power.

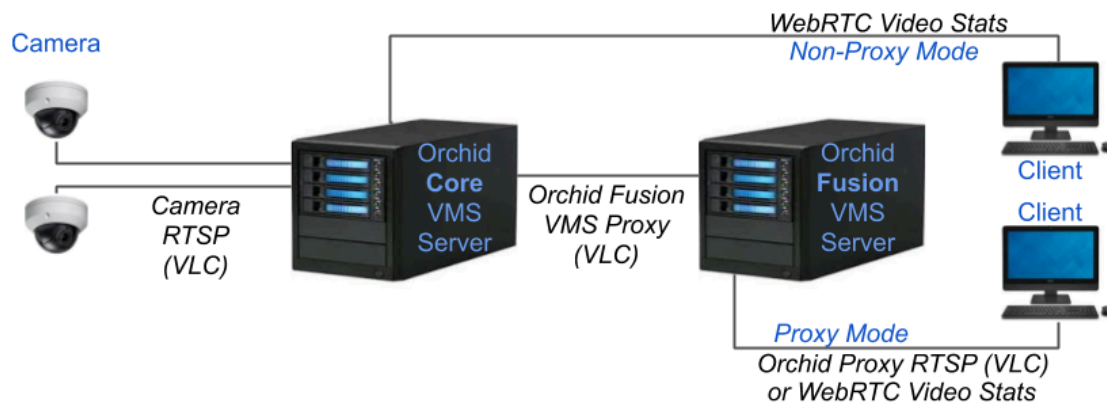
✿ For more information, please refer to the next topic.

Checking for Packet Loss

If video in Orchid Fusion VMS is unavailable or degraded, you may be experiencing packet loss in one of several locations:

- Between the camera and Orchid Core VMS
- Between Orchid Core VMS and the viewing client
- Between Orchid Core VMS and Orchid Fusion VMS
- Between Orchid Fusion VMS and the viewing client

There are several methods for checking for packet loss. The diagram below indicates which check methods (noted in black) are available to test the different connections when the system is running in Proxy Mode or Non-Proxy Mode.



* For detailed instructions on running the checks for packet loss, please refer to the *Checking for Packet Loss* section in the [Orchid Core VMS Administrator Guide](#).

About WebRTC

Beginning in version 2.4.0, Orchid Fusion VMS supports Web Real-Time Communication, or WebRTC. WebRTC provides users with another method for connecting an Orchid Core VMS server with a client, so that the client may view good quality, live and recorded video. Although you may view video in Orchid Fusion VMS, all of that video is coming through (and is stored by) Orchid Core VMS. That's where WebRTC does its magic. For this reason, WebRTC is fully documented in the [Orchid Core VMS Administrator Guide](#) and the [Orchid Core VMS Installation Guide](#) (for software versions 2.2.0 and later). Please refer to these guides for general information, how Orchid Core VMS works in WebRTC mode, troubleshooting tips, and configuration details.



Comparing Orchid Fusion VMS Operating Modes

Beginning with version 2.4.0, Orchid Fusion VMS now supports operation in WebRTC mode in addition to the original Low-bandwidth mode. The availability of these operating modes will depend on your web browser and operating system.

✳ Starting with Orchid Fusion VMS version 2.10, the FBGST plugin will no longer be supported. The plugin-compatible web browsers (Chrome version 34, and Firefox version 52) have also reached the end of support. If you were previously using either of these web browsers, you should upgrade to the latest version available.

The table below provides a high-level comparison of the two operating modes.

| | Low-bandwidth mode | WebRTC mode |
|--|---|---|
| Compatible operating systems | Windows, Linux, macOS, iOS, Android | Windows, Linux, macOS |
| Compatible web browsers | Most modern web browsers (Microsoft Internet Explorer is not supported) | The latest versions of Mozilla Firefox, Microsoft Edge, Safari (desktop and mobile), and Google Chrome (version 66 or higher on a desktop or mobile device) |
| Network requirements | Works well even on slow connections between web browser and Orchid Core VMS server (or Orchid Fusion VMS server if the proxy method is in use). | Requires a good connection between web browser and Orchid Core VMS Server |
| Video decoding | Decoding is done on the Orchid Core VMS server | Decoding is done on the client machine |
| Additional configuration required for viewing servers behind a firewall | None (assuming web interface is already accessible) | STUN server |
| Video quality | Frame rate that throttles to match available bandwidth | Native, unthrottled frame rate |
| Supported video file types | H264, JPEG, MPEG4 | H264 |
| Audio support | No | No |
| PTZ camera support | Yes | Yes |
| Video statistics | Yes (Minimal) | Yes (Overload) |
| Mode is selectable | Yes | Yes |

| | | |
|------------------------------------|---|--|
| (at Sign In and per Player) | | |
| Mode indicator |  |  |

Additional Support

Orchid Fusion VMS users with questions or issues should first contact their Company's Orchid Fusion VMS System Administrator. Barring any internal corporate policies, an Administrator may escalate the technical support request.

- Tier 1 Support: Orchid Fusion VMS System Administrator
- Tier 2 Support: Integrator or Dealer
- Tier 3 Support: IPConfigure Technical Support Resources

IPConfigure's Orchid Fusion VMS Knowledge Base: The Orchid Fusion VMS Knowledge Base is freely and publicly available on IPConfigure's support website, and includes detailed information for a variety of Orchid Fusion VMS issues. The Knowledge Base covers advanced installation and configuration scenarios.

IPConfigure's Email-based Trouble Ticket System: Any Orchid Fusion VMS customer with a valid Orchid Fusion VMS Support Agreement can submit trouble tickets through the IPConfigure support website at <http://support.ipconfigure.com>. Orchid Fusion VMS trouble tickets are resolved over email by IPConfigure's highly trained Technical Support Team. (Please refer to the last topic for detailed instructions.)

IPConfigure's Telephone Support Line: Customers with an Orchid Fusion VMS Express Support Agreement may call IPConfigure's Telephone Support toll-free at 877-207-1112 (during the times listed below). Orchid Fusion VMS Express Support is complimentary for one year with all new Fusion license purchases (for Orchid Core VMS).

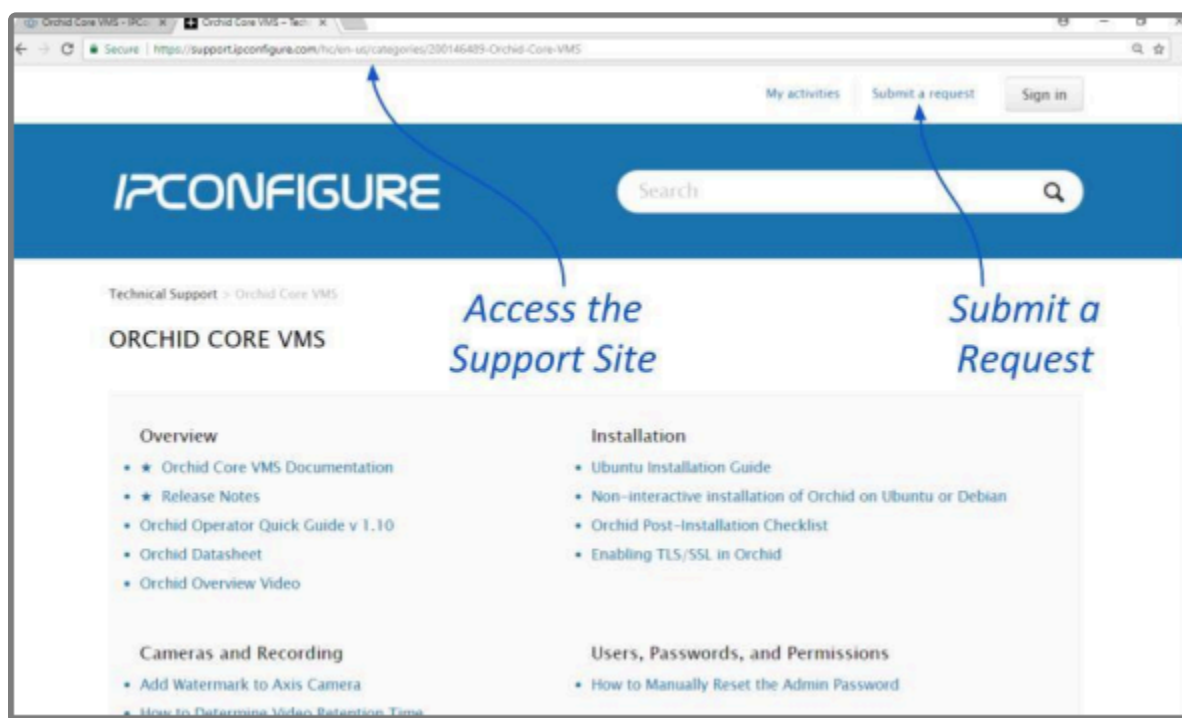
IPConfigure Technical Support Hours

As of December, 2018, IPConfigure's technical support hours are as listed below. For the most up-to-date version of our IPConfigure support schedule, please see support.ipconfigure.com.

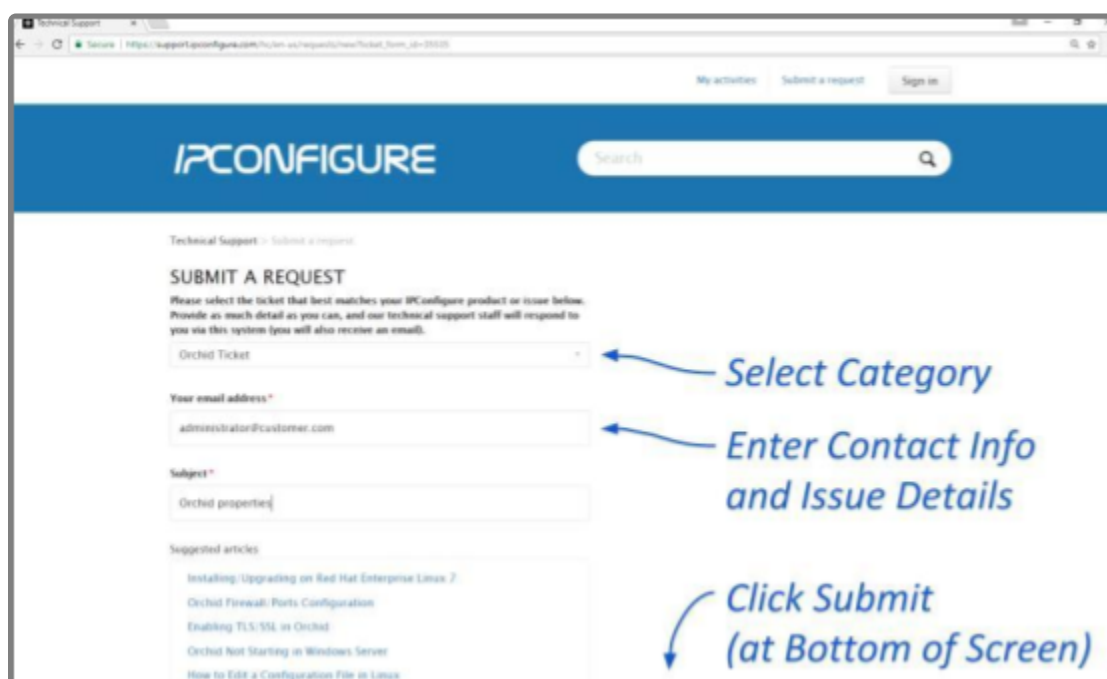
| | |
|------------------|---|
| Sunday | Closed |
| Monday | 9:00 AM to 8:00 PM EST |
| Tuesday | 9:00 AM to 12:00 PM, 1:00 PM to 8:00 PM EST |
| Wednesday-Friday | 9:00 AM to 8:00 PM EST |
| Saturday | Closed |

How to Submit a Support Request

1. Visit our technical support site at: <http://support.ipconfigure.com>
2. Click on the *Submit a request* link in the top-right corner of the screen.



3. When the support request screen appears, use the drop-down list to select the product or issue that best matches your support need.



4. Enter your contact information, a description of your question/problem, the version number of your

Orchid Fusion VMS software, and your Orchid Fusion VMS server type. So that IPConfigure's Technical Support Team can best assist you, please provide as much detail as possible about the problem. Attach screenshots and system logs as necessary.

To find the Orchid Fusion VMS software version number, go to the *System Menu* and select *Version Information*.

5. Mark the *I'm not a robot* checkbox (if available).
6. When all available information has been entered, press the **Submit** button at the bottom of the screen.

IPConfigure Technical Support will respond to your request as soon as possible.



For additional help with Orchid Fusion VMS, please visit our training site at training.ipconfigure.com.