

The purpose of this document is to provide technical details for various new features in the Ocularis 5.5 release.

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## Camera Health Status

As you know, cameras can sometimes go offline without you realizing it. Administrators now have a way to obtain a real-time update of the health of the cameras on their system via a new **System Status** Tab in *Ocularis Administrator*.

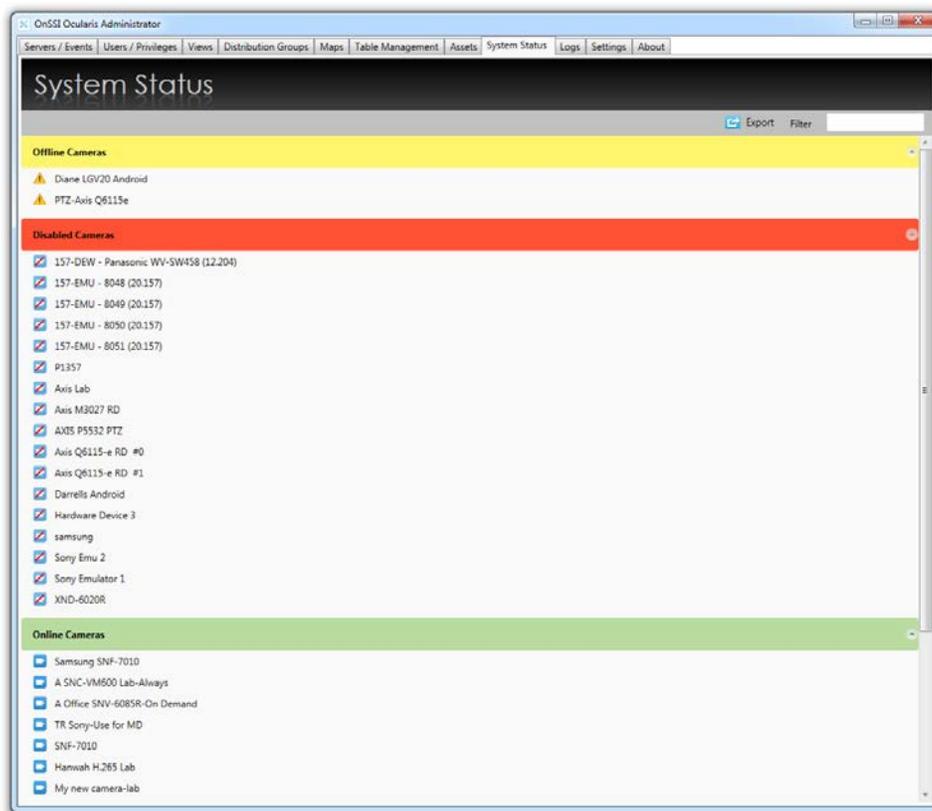


Figure 1 System Status Tab

In this tab, you'll see groupings of three statuses: Offline, Disabled and Online. This screen is updated in real-time. You can expand or collapse a group by clicking the arrow icon on the right of the group name or on the heading itself.

There is a filter field in the upper right that allows you to use a keyword to help you locate a particular camera by its name.

Lastly, you can export the list of cameras and their status by clicking the 'Export' button. A pop-up allows you to select which cameras you'd like included in the report. You can specify a location for the resulting .csv (comma separated values) file and then click **Export**. Open the file with any text editor or Microsoft Excel to view the contents.

This feature is only available to the **admin** user or other users in the 'Administrators' user group. Is it not available to Group Administrators.

## CAMERA STATUS INDICATORS

Another place where administrators can get an update of their system health is from the *Ocularis Administrator* **Servers / Events** tab. If you expand the Cameras list, you will see an update on the status of your cameras. Cameras that are disabled appear 'grayed out'. Cameras that are offline appear with the icon: 

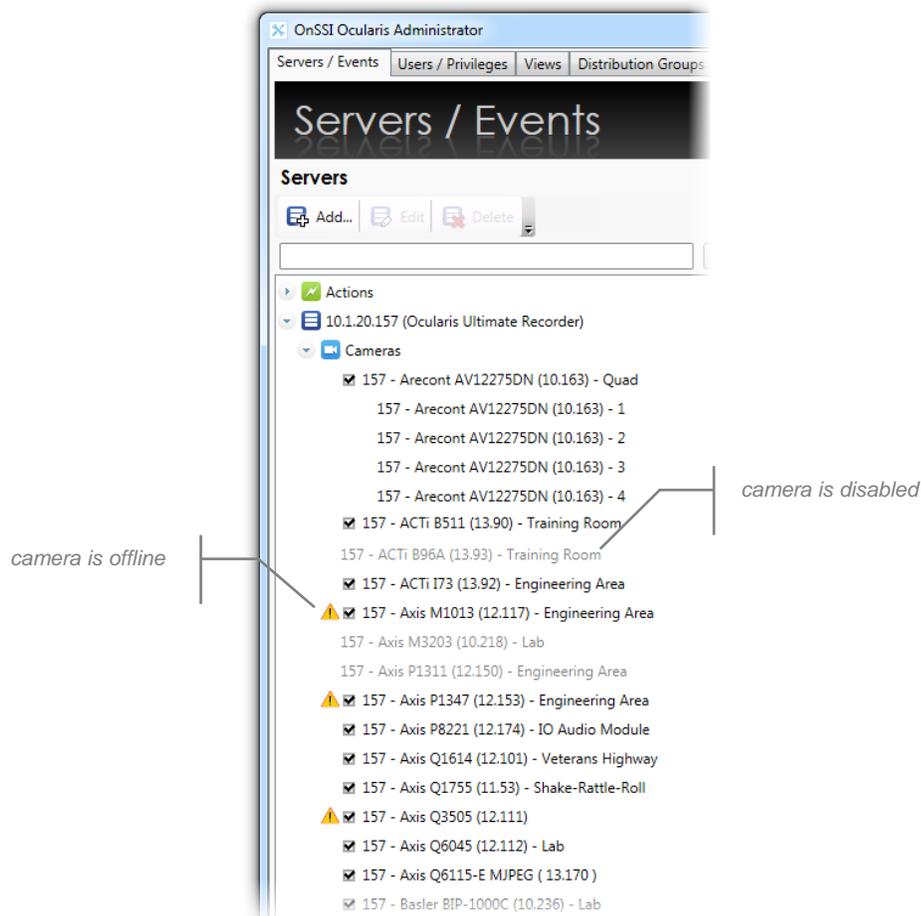


Figure 2 Camera Status Info

This feature is available to only user accounts in the 'Administrators' group. The status of cameras update in real-time.

## Automatic Server Refresh

Whenever a change is made on a recorder that requires a refresh in the Base, *Ocularis Administrator* will perform an automatic refresh of the affected server. This is actually controlled by the *Ocularis Recorder Proxy* (formerly called 'Ocularis Event Proxy') and is equivalent to a user right-clicking a server name and selecting 'Refresh Server' in the *Ocularis Administrator* 'Servers / Events' tab. Once a recorder change is made (e.g. a new camera is added, camera name changed, etc.), the *Ocularis Recorder Proxy* is aware of this change. It will then instruct *Ocularis Administrator* to refresh the applicable server.

The recorder changes that will cause the Base to automatically refresh include:

- Adding a device or adding an additional camera from a multi-channel device
- Renaming a device (at the top level name only; does not apply to renaming a camera name for a multi-channel device)
- Deleting a device

Adding, modifying or deleting a camera stream, however, will be silently updated by the *Ocularis Recorder Proxy*. These do not require a recorder refresh on the Base.

When the first change is made, a refresh is immediate. On larger systems, however, this could take up to a minute. If the *Ocularis Administrator* application is open and you want to see the change either click the 'Resync' button in the **Events** pane or switch tabs.

To prevent too many automatic refreshes, subsequent recorder changes will not immediately force a refresh if performed within five minutes of the first change. Once the second change is made on the recorder, a five minute timer starts and a blue highlight will pulse over the server name in the **Servers / Events** tab to indicate that a Recorder refresh is pending (see Figure 4 below). If another change is made on the recorder, the timer is reset at five minutes from that point on and so on. You can wait until the system does the refresh automatically or you can perform a manual refresh by right-clicking the server name and selecting 'Refresh Server'. If a manual refresh is performed, the scheduled automatic refresh is cancelled.

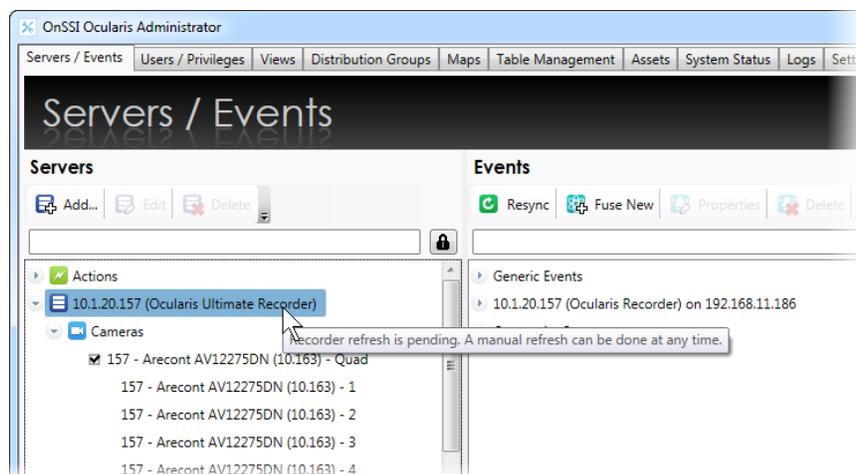


Figure 3 Recorder refresh is pending

In order for this feature to work, the checkbox 'Auto Update Recorder on Ocularis Base' must be checked inside the *Ocularis Recorder Proxy*, under **Base Settings** for each server. This feature is enabled by default.

**Note:** If a camera name is changed on the recorder, this feature will automatically update it in the Servers pane of Ocularis Administrator. However, the camera name change will not be reflected in the Events pane. The event will continue to work, however, even with the outdated name. To correct this, restart the Recorder Proxy.

## Smart Event Communication

In addition to changing its name, there have been additional important changes to the *Ocularis Recorder Proxy*. The way the Proxy communicates with Ocularis Base is now more intelligent and efficient. When you select one or more events in the 'Event Selection' list on the *Ocularis Recorder Proxy*, the Proxy is able to determine whether Ocularis Base actually has any of the selected events configured.

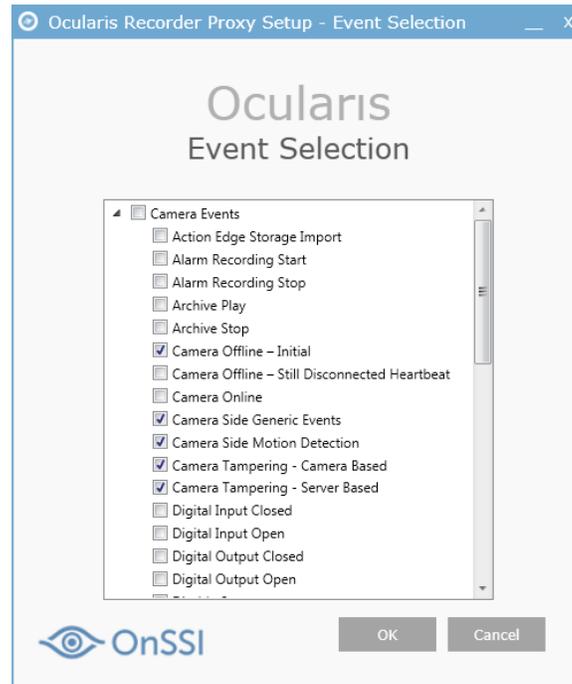


Figure 4 Ocularis Recorder Proxy Event Selection

For instance, in the example shown above, we've selected five events:

- Camera Offline - Initial
- Camera Side Generic Events
- Camera Side Motion Detection
- Camera Tampering - Camera Based
- Camera Tampering - Server Based

Based on the selections in this list the *Ocularis Recorder Proxy* then checks with Ocularis Base to see if any cameras have mappings associated with these events. In other words, do any cameras have Camera Offline - Initial configured, Camera Side Generic Events configured and so on.

If they do, the Proxy will send ONLY these events. If, for example, there are no cameras mapped to the 'Camera Tampering - Server Based' event, even though it is selected here, the Proxy will not send any data to the Base regarding this event. In prior versions, the data would be sent even if the event was not configured on any camera on the Base. This can significantly improve performance on the Base. It can also result in huge savings in network bandwidth, especially in larger systems.

## Increased Security with Ocularis Recorder Proxy

The *Ocularis Recorder Proxy* now requires account credentials to authenticate permission with Ocularis Base. This prevents just anyone from configuring a rogue recorder to transmit events (and streams, etc.) to any Base. When you configure the *Ocularis Recorder Proxy* for the first time or when you upgrade, you need to provide a Username, Password and Authentication type for an administrative account on that Base. You must validate the credentials by clicking the 'Test Authentication' button. Only then are you able to continue with the Proxy configuration.

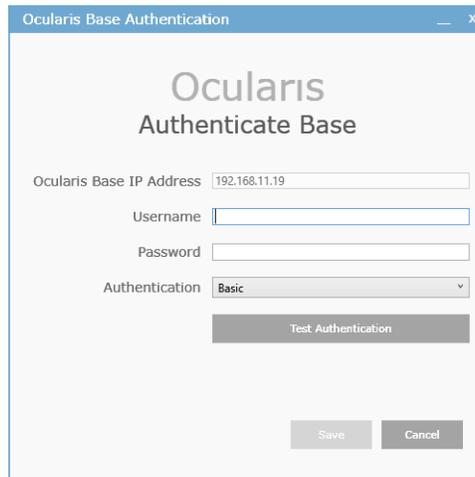


Figure 5 Authenticate Ocularis Base

Keep in mind that credentials must be provided for each Base configured. In the case of an upgrade, you'll be asked to provide these credentials before the upgrade software is installed. If the credentials are incorrect or you elect not to provide them during the upgrade, the software installation will be aborted. The existing Proxy software remains intact.

## Ocularis Client Automatic Update

Certain changes made on the recorder or Base require that *Ocularis Client* be restarted. This is done by the operator selecting 'Log off' and then logging back on. The automatic update feature provides the flexibility to have *Ocularis Client* be restarted for you.

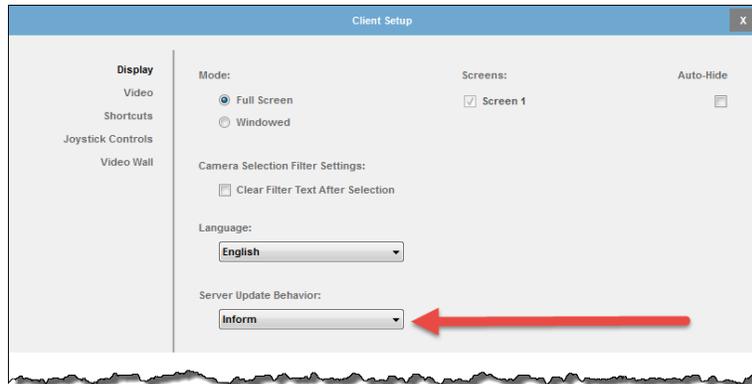


Figure 6 Server Update Behavior

This behavior is configured on each *Ocularis Client* PC and will affect all users logging in to that PC. Configure the setting in *Ocularis Client* by selecting Views...Client Setup. The options are located in the drop-down list on the 'Display' screen under 'Server Update Behavior' and include:

- Ignore
- Auto-Restart
- Inform

### Ignore

If 'Ignore' is selected, the operator will not be notified of any potential changes that require an *Ocularis Client* restart. This is the behavior that existed pre-version 5.5.

### Auto-Restart

If 'Auto-Restart' is selected, a pop-up appears stating that a change was made and *Ocularis Client* must be restarted to take advantage of the change.

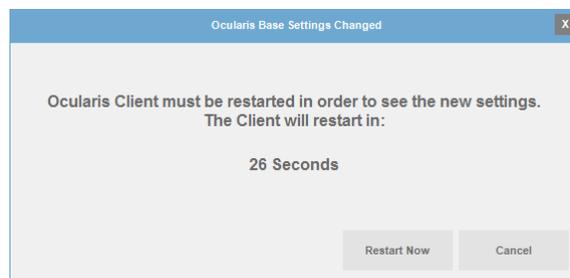


Figure 7 Auto Restart

If you do nothing, the Client will close and restart by itself when the timer runs out. You can click 'Restart Now' to immediately initiate the restart. Clicking 'Cancel' aborts the restart. The message will not reappear unless additional changes are made that would require a restart.

**Note:** *If there is an export in progress, this pop-up will not appear right away. The message 'Server Settings Have Changed' is displayed in the upper left portion of the screen. Once the export is complete the pop-up will appear, allowing you to restart the Client to take advantage of any server based changes made.*

### **Inform**

This is the default setting. When a change is made on the recorder or Base that could affect the operator's use of *Ocularis Client*, a message 'Server Settings Have Changed' appears in the upper left portion of the *Ocularis Client* screen. The change could be anything from a new view, a new camera in an existing view, a new camera stream, PTZ presets and more. The actual change is not displayed in the message. The operator has the option to restart *Ocularis Client* (i.e. log off and log back in) in order to take advantage of the new settings. The message appears for about 10 seconds and then disappears. It will reappear every ten minutes until the Client is restarted.

## Streaming On Demand

Some new settings have been introduced on the recorder related to a camera's stream. Through the **Stream audio/video** option on the camera configuration screen you can determine whether a camera's stream is always streaming to the device manager or whether you want to reduce network traffic and only stream video when you need it. Similarly, you have the option to stop the stream as well.

This feature is commonly used in interview or interrogation rooms or anytime a meeting needs to be completely private. Not streaming video from a camera can also reduce network traffic and is especially useful in LTE environments. This feature applies to all streams from the camera. When a stream is stopped, video is not recorded nor available live to any client user. Audio is also not recorded or transmitted.

There are three options for the **Stream audio/video** field:

- Always (introduced in v5.0)
- On Demand - Quick Start (introduced in v5.3)
- On Demand (introduced in the August 2017 recorder patch update for R10)

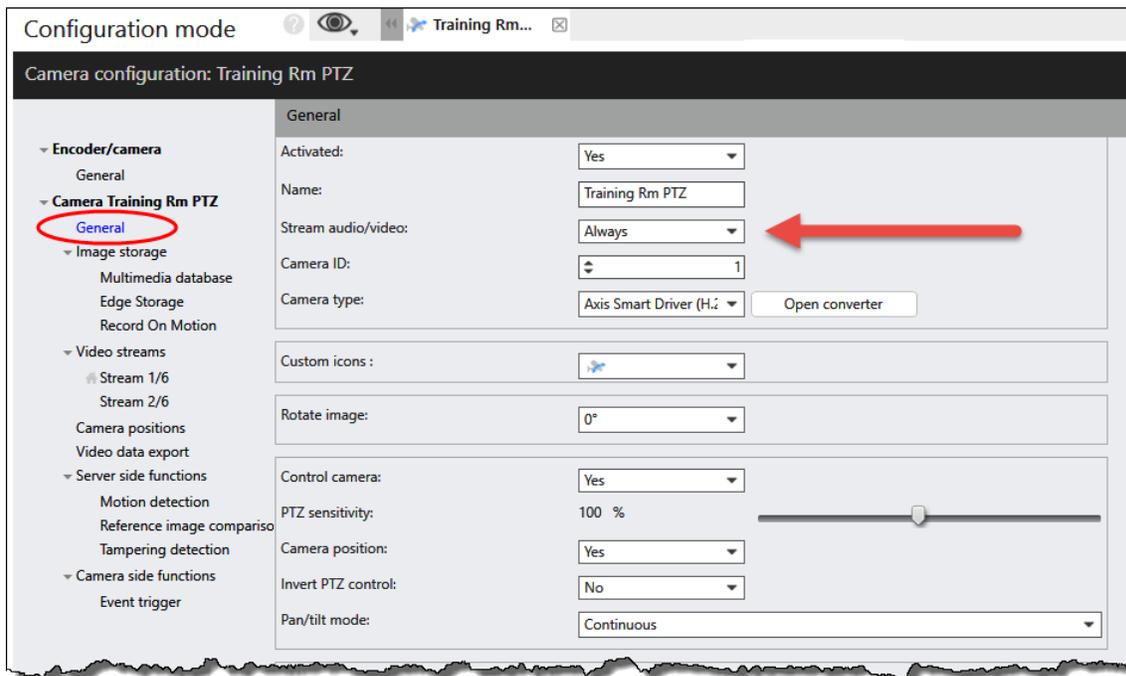


Figure 8 Stream audio/video

## STREAMING - ALWAYS

When the **Stream audio/video** drop-down is set to 'Always', the default value, live video streams from the camera to its assigned device manager. If Standard Recording is set to 'Yes' and the recording period is set to 'Always', the camera streams 24/7/365 and cannot be turned off manually. If configured, video is recorded to its corresponding zone(s) and sent to any authorized client (*Ocularis Client*, *Ocularis 5 Web* or *Ocularis 5 Mobile*) seeking to view it.

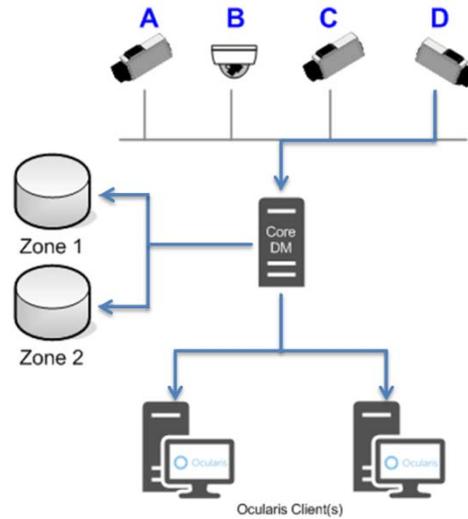


Figure 9 Streaming - Always

### STREAMING - ON DEMAND - QUICK STREAM START

When the option **On Demand - Quick Stream Start** is selected, video streams from the camera to its device manager but is then discarded. In *Ocularis Client*, a view pane with this camera appears empty with the message 'Camera connection lost' when a view with the camera is displayed. If an operator wants to view video from that camera, he/she must manually request it from a client by alarm scenario or executing a manual event (such as a trigger). Once the stream is enabled, it can be recorded (if configured to do so) or displayed to any client requesting it. The stream remains active until disabled via another event (either manual or automated).

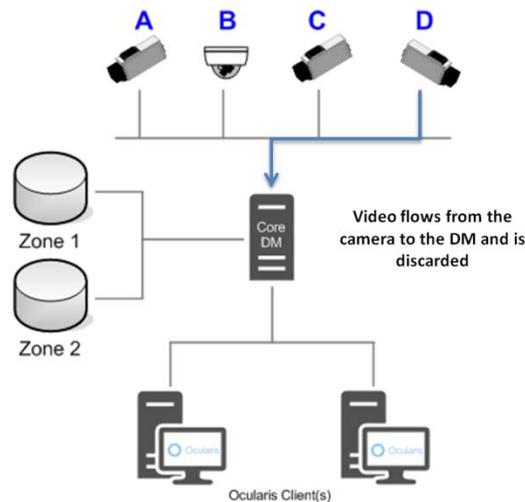


Figure 10 Initially, device manager discards video data

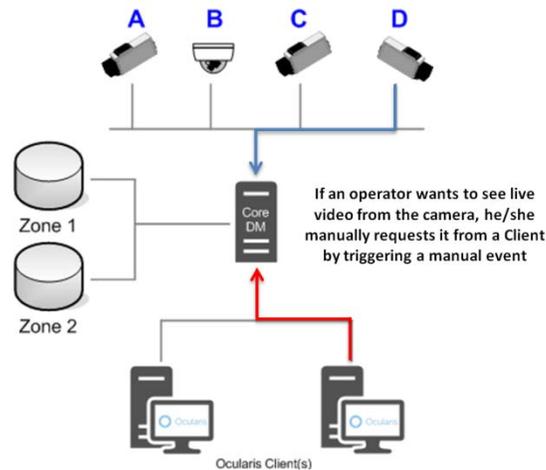


Figure 11 Operator can manually request video via trigger

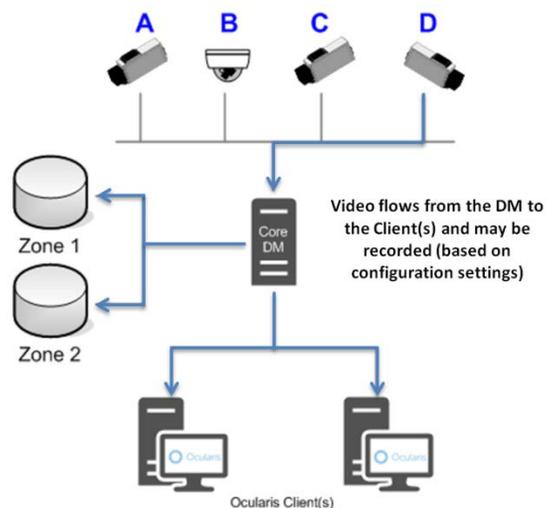


Figure 12 Once requested, video flows to clients and/or recorded to zone(s)

## STREAMING - ON DEMAND

When the option **On Demand** is selected, video does not stream from the camera to its device manager. A view pane with this camera appears empty with the message 'Camera connection lost' when a view with the camera is displayed. If an operator wants to view video from that camera, he/she must manually request it from a client by alarm scenario or executing a manual event (such as a trigger). Once the stream is enabled, it can be recorded (if configured to do so) or displayed to any client requesting it. The stream remains active until disabled via another event (either manual or automated). Since the video when using the 'On Demand' option does not stream from the camera to the device manager by default, network traffic is reduced. This feature is also useful if transmitting camera video via wireless over broadband.

## USING TRIGGERS TO CONTROL STREAMS

In order to take advantage of the On Demand streaming function, you need a mechanism to be able to start or stop the live stream. This is done by using a trigger or alarm scenario. Triggers may be camera specific or global.

### Camera Specific Triggers

Camera specific triggers may be used to disable or enable a stream set to 'On Demand' or 'On Demand Quick Stream Start'. These triggers are available for use (given permission) with *Ocularis Client*, *Ocularis Web* and *Ocularis Mobile*. They are

accessible via the 'aux' menu on the camera pane in *Ocularis Client*. For *Ocularis Web*, they appear when the trigger icon in the camera's pane is selected. For *Ocularis Mobile*, a list of camera specific triggers appears when the camera is selected (you may have to swipe left or right in portrait mode to view the list).

### **To Create a Camera Specific Trigger**

These steps assume that the camera's stream mode is already set to 'On Demand' or 'On Demand Quick Start'. (see Figure 9).

1. Using *Ocularis Recorder Manager*, select 'Triggers' from the Control Bar and create a new trigger by clicking the 'Create new object' tool. 
2. Provide a name for the trigger. Keep in mind this is the label that is visible in a client. It should be as descriptive as practical and will be listed in the order in which it is created. You will create a trigger to start or enable the stream as well as to stop or disable the stream.  
Click **OK**.
3. If you want to change the icon that will appear adjacent to the trigger in *Ocularis Recorder Manager*, select it from the Icon drop-down menu. This is optional.
4. Click the checkbox for 'Specific camera'.
5. Select the camera you are configuring.
6. Next, select 'Action' on the left panel.
7. Select the 'Perform action' radio button which enables a **Select** button.
8. Click the **Select** button.
9. Expand the camera you are configuring. You should see an entry to 'Disable stream' and to 'Enable stream'. Select one of these and click **OK**.
10. Click **Save** to save changes and close the tab.
11. Repeat these steps to create a second trigger to start or stop the stream.
12. Once all triggers have been created, perform a manual refresh on the recorder within *Ocularis Administrator* (right-click and select 'Refresh Server').

### **To Use a Camera Specific Trigger**

From *Ocularis Client*, select the 'aux' overlay icon in the camera's view pane to access the enable or disable stream trigger. From *Ocularis Web*, the trigger appears when the trigger icon is clicked from within the camera pane. From *Ocularis Mobile*, select the camera and view the camera specific triggers after selecting a camera for viewing.

**Note:** Since a camera set to 'On Demand' or 'On Demand Quick Start' will initially be disabled, the 'aux' overlay icon in *Ocularis Client* will not be initially visible. Therefore, it is recommended to also set a Global Trigger to enable a camera. See instructions below.

### **Global Triggers**

Global triggers may also be used to disable or enable a stream set to 'On Demand' or 'On Demand Quick Stream Start'. These triggers are available for use (given permission) with *Ocularis Client* and *Ocularis Web*. They are accessible via the 'Triggers' menu in *Ocularis Client*. For *Ocularis Web*, they are accessed from the Triggers icon in the Task Bar.

### **To Create a Global Trigger**

These steps assume that the camera's stream mode is already set to 'On Demand' or 'On Demand Quick Start'. (see Figure 9).

1. Using *Ocularis Recorder Manager*, select 'Triggers' from the Control Bar and create a new trigger by clicking the 'Create new object' tool. 
2. Provide a name for the trigger. Keep in mind this is the label that is visible in a client. It should be as descriptive as practical and will be listed in alphabetical order in the menu list. Therefore, you may want to prepend the name of the trigger with the name of the camera such as:

Camera 1234 - Start Stream

### Camera 1234 - Stop Stream

This naming convention will group the triggers for the camera together.

You can create a trigger to start or enable the stream as well as to stop or disable the stream.

Click **OK**.

3. If you want to change the icon that will appear adjacent to the trigger in *Ocularis Recorder Manager*, select it from the Icon drop-down menu. This is optional.
4. Next, select 'Action' on the left panel.
5. Select the 'Perform action' radio button which enables a **Select** button.
6. Click the **Select** button.
7. Expand the camera you are configuring. You should see an entry to 'Disable stream' and to 'Enable stream'. Select one of these and click **OK**.
8. Click **Save** to save changes and close the tab.
9. Repeat these steps if you want to create a second trigger to start or stop the stream.
10. Once all triggers have been created, perform a manual refresh on the recorder within *Ocularis Administrator* (right-click and select 'Refresh Server').

### To Use a Global Trigger

From *Ocularis Client*, select the 'Triggers' menu when in Live mode. Expand 'Global Triggers'. Select the global trigger from the displayed list .

From *Ocularis Web*, the trigger appears when the global trigger icon is clicked from the Task Bar at the bottom of the screen.

### Using Global Triggers to Control Multiple Cameras

You may wish to enable or disable a group of cameras at the same time. For instance, if you have multiple cameras in a conference room and have a private meeting, there is a way to disable all cameras in one step. (Conversely, you can enable them in one step as well). In this case, you need to configure an alarm scenario to disable or enable the cameras and then create a trigger for each scenario.

1. The first step is to create the alarm scenario. From *Ocularis Recorder Manager*, select 'Alarms' from the Control Bar and create a new alarm scenario by clicking the 'Create new object' tool. 
2. Provide a name for the scenario such as 'Conference Room A - Enable All Cameras' and click **OK**.
3. If you want this feature available at only designated times, change the 'Validity' period by selecting another Time profile. Otherwise, it will be available 'Always'.
4. Click 'Server' from the left panel.
5. Click the **Edit** button under 'Actions at start of alarm'.
6. For each camera you wish to configure, expand it in the pop-up and select 'Enable stream'. This assumes that you have already configured the camera's stream mode to 'On Demand' or 'On Demand Quick Start'. (see Figure 9). You may select as many cameras as necessary. When done, click **OK**.
7. Click **Save**.
8. Repeat the above steps for an alarm scenario to disable the same cameras.
9. When done, create a new Trigger for each alarm scenario. Select 'Triggers' from the Control Bar and create a new trigger by clicking the 'Create new object' tool. 
10. Provide a name for the trigger. Keep in mind this is the label that is visible in a client. It should be as descriptive as practical and will be listed in alphabetical order in the menu list. Therefore, you may want to prepend the name of the trigger with the name of the camera such as:

Conference Room A - Disable All Cameras  
Conference Room A - Enable All Cameras

This naming convention will group the triggers for the camera together.

You can create a trigger to start or enable the stream as well as to stop or disable the stream.

Click **OK**.

11. If you want to change the icon that will appear adjacent to the trigger in *Ocularis Recorder Manager*, select it from the Icon drop-down menu. This is optional.
12. Next, select 'Action' on the left panel.
13. Select the 'Start alarm scenario' radio button which enables a drop-down menu.
14. Select the corresponding alarm scenario from the list.
15. Click **Save** to save changes and close the tab.
16. Repeat these steps if you want to create a trigger to start or stop the streams.
17. Once all triggers have been created, perform a manual refresh on the recorder within *Ocularis Administrator* (right-click and select 'Refresh Server').

### Alerts with Streams

If you want to be notified when a camera stream is enabled or disabled, you may do so using a new event for this in the 'Event Filters' list of the *Ocularis Recorder Proxy*. Under 'Camera Events' you can select 'Disable Stream' and / or 'Enable Stream'.

You still need to configure the event using *Ocularis Administrator* as you would any other event (i.e. map a camera to the event in the **Servers / Events** Tab and designate event distribution rules in the **Distribution Groups** Tab.)

## Adjustable Column Width in Ocularis Recorder Manager

If a camera name or label of any entity in the *Ocularis Recorder Manager* is longer than twenty-one characters, the item was truncated and only visible using a horizontal scroll bar.

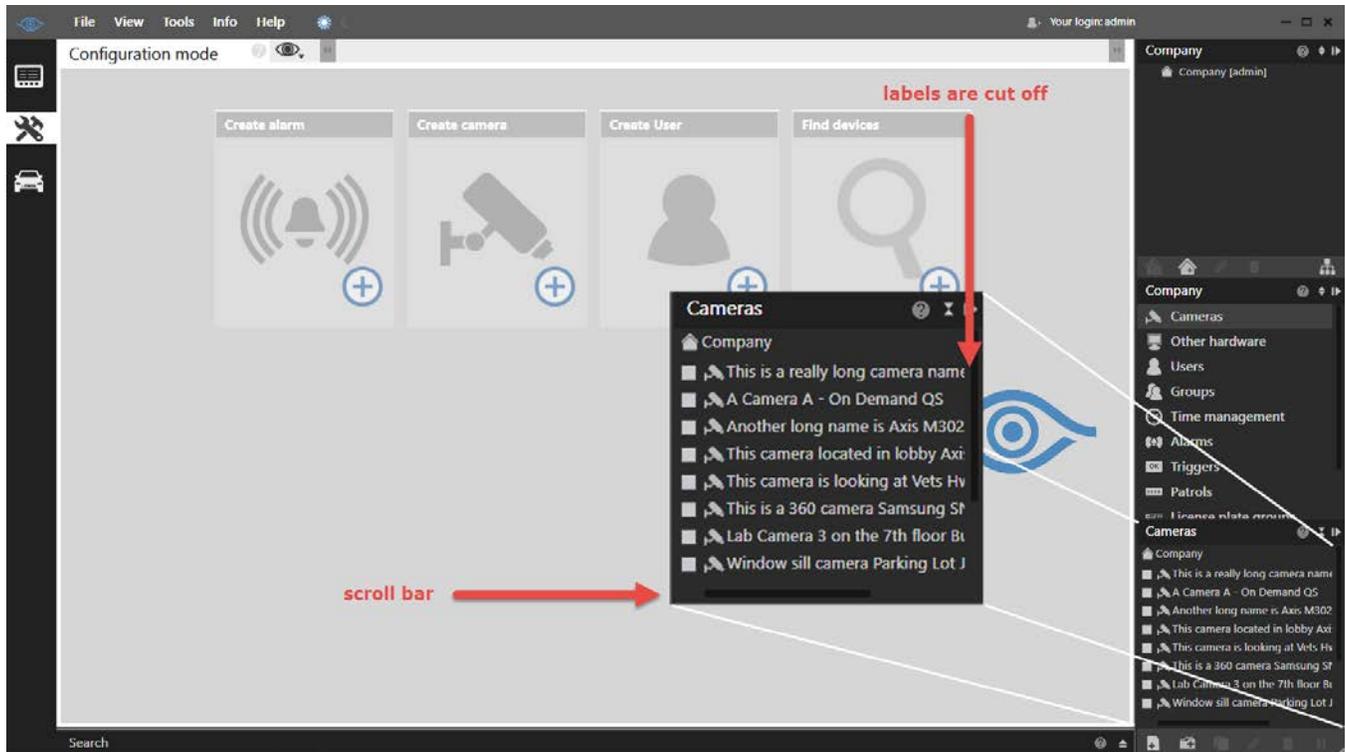


Figure 13 Lengthy Text is not visible

With v5.5, you can now manually adjust the width of the control bar to accommodate lengthy labels. Position the mouse on the edge between the main screen and the control bar until you see a double-arrow cursor.



Click and drag left or right to adjust the width of the panels.

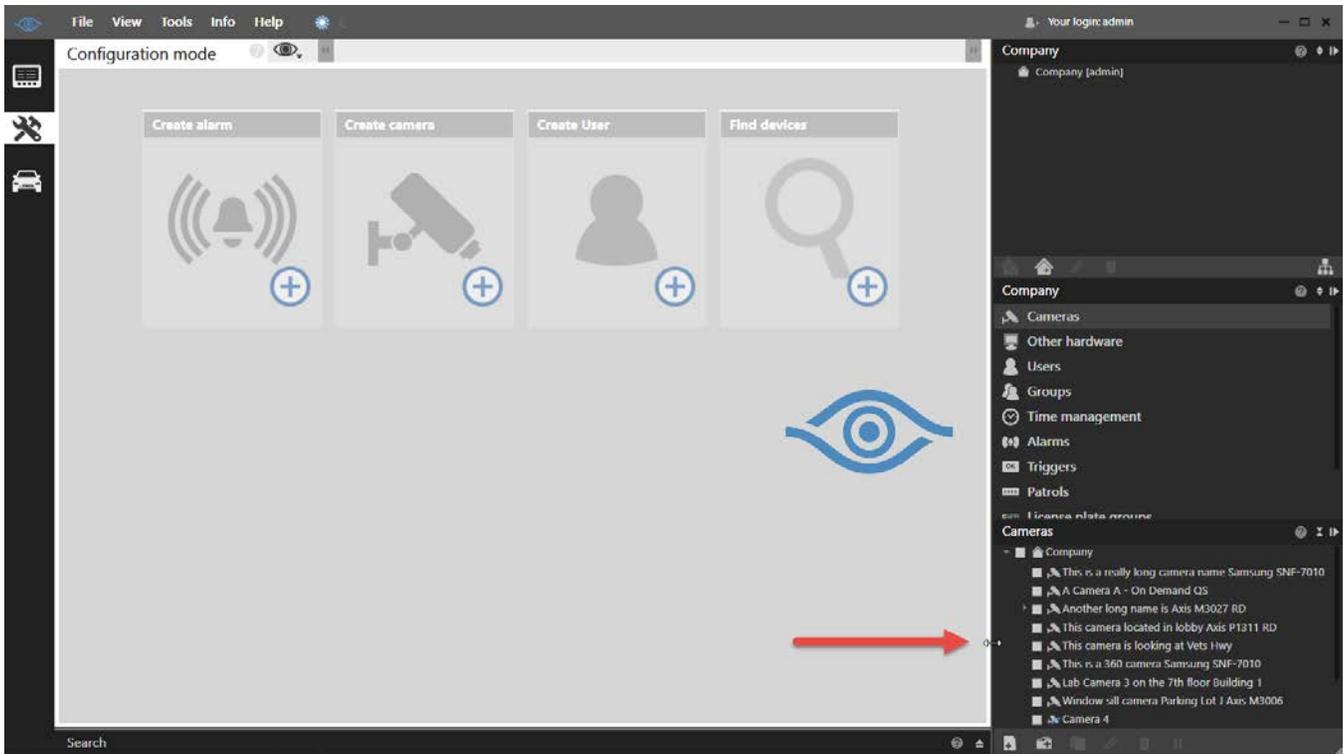


Figure 14 Adjust the width of the control bar

The width of the panes will remain in place for all users on the local PC until manually changed again.