



Ocularis

Event Proxy Configuration Guide



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US patent # 8,390,684 B2 for Ocularis Client

Patents Applied For in the U.S. and Abroad

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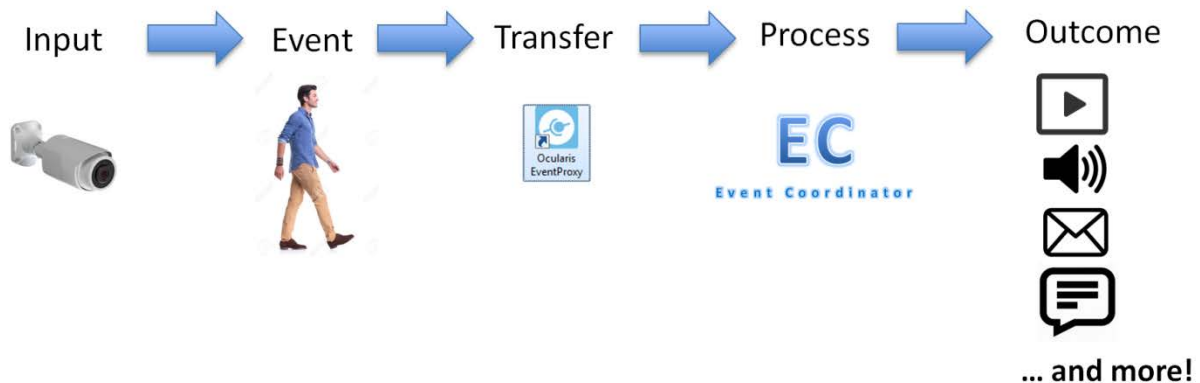
Introduction

Ocularis 5 is OnSSI's newest and most innovative and cost effective open platform Video Management Software (VMS) and is designed to enhance your security while simplifying your daily workload. The system is comprised of many separate components that work together as part of a complete scalable and easy-to-use video management solution.

One component of Ocularis is called the Event Proxy. This document details how to configure the Ocularis 5 Event Proxy.

Ocularis Event Flow

An event in Ocularis is some action that has occurred. Examples include: motion detected on a camera, a security card swiped in an access control system, tampering on a camera, a camera going offline, a zone running low on disk space, etc. Events that are important to you can be configured so that operators can be alerted and a record of the event, including recorded video, be saved.



An *event proxy* transfers events that take place at the camera or recorder level and transfers these to the Event Coordinator service on Ocularis Base. Then the event can be distributed to interested parties via *Ocularis Client*, *Ocularis 5 Web* or *Ocularis 5 Mobile*. OpenSight users and third party integrations (e.g. Lenel's OnGuard, Software House's C•Cure, etc). can even be the recipient of alerting with Ocularis 5.

The response to the event can be one or any combination of the following:

- Play a sound in Ocularis Client
- Display video in a blank screen pane in Ocularis Client ("Blank Screen Monitoring")
- Move a PTZ camera to a predefined preset
- Send an email to a predefined recipient
- Turn on a light or play a siren
- Send an outgoing HTTP Request
- Send an outgoing Generic Event (TCP/UDP Data Packet)
- Update the alert counter in Ocularis Client, Ocularis Web and Ocularis Mobile
- Issue a notification alert on an Ocularis Mobile device

What is an Event Proxy?

An event proxy is software that, among many things, manages the flow of events from an Ocularis recorder to an Ocularis Base or other server. Ocularis Event Proxies are specific to the version and generation of Ocularis.

Currently supported are the following event proxies:

Name	Type	Build Number	Generation	Supported in
Ocularis 5 Event Proxy	64-bit	5.3.1.864	5	5.3 and later
RC-C/RC-I Event Proxy	64-bit	5.3.0.859	4	5.3 and later
RC-E/L Event Proxy	64-bit	5.3.0.859	4	5.3 and later

In Ocularis, an Event Proxy performs many tasks. These include:

- Forwarding events from an Ocularis recorder to Ocularis Base or other server
- Manages multiple streams from cameras on Ocularis recorders
- Optimizes which stream to use when using Ocularis Web or Ocularis Mobile
- Monitors camera presets for PTZ cameras configured on the recorder

So if you are using events in your system, you'll need to install an event proxy. Even if you are not using events but are using *Ocularis 5 Web* or *Ocularis 5 Mobile*, you need to install an event proxy.

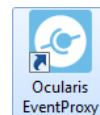
This document focuses on the event proxy included with Ocularis 5. Details on using legacy recorders with Ocularis 5 can be found at the end of this document.

Where to Install an Event Proxy

In Ocularis 5, there is one event proxy per master core server of the recorder. Therefore, in most Enterprise and Ultimate installations, only one event proxy is needed since there is typically only one master core. In Professional installations, however, where there is a master core and device manager on each recording server, an event proxy must be installed for each master core.

- The event proxy must be installed on a PC with connectivity to the master core. While not required, it is highly recommended to install the event proxy software on the same computer as the master core.
- Download the event proxy software from the Ocularis Component Downloads webpage located on Ocularis Base and install from there. For instructions on software installation, refer to the *Ocularis Installation & Licensing Guide* found on the OnSSI website.

The following desktop icon appears upon successful installation:



Note: configuration of the event proxy requires administrator level access of the Windows user. You can right-click the icon and select 'Run as administrator'.

Since the release of Ocularis v5.3, the event proxy is provided as a 64-bit application.

When To Restart The Event Proxy

Restarting the event proxy service manually is required from time to time for many reasons. It is important that you understand how and when to do this.

Restart the event proxy when:

- New cameras are added to the recorder
- The Views Tab in Ocularis Administrator is updated
- Events are selected or de-selected in the Servers / Events Tab of Ocularis Administrator
- Presets are added to a PTZ camera using Ocularis Recorder Manager
- Streams are added or modified for cameras using Ocularis Recorder Manager
- ...all else fails!

Restarting the event proxy is required for version 5 and version 4 recorders.

How to Restart The Event Proxy

As discussed in the last section, there may be several reasons why the event proxy needs to be restarted. There are two primary ways to do this:

1. Using the software
2. Using Windows Services

Restart The Event Proxy Using the Software

1. Launch the event proxy application.
2. Click the **Stop Service** button.
3. Click the **Start Service** button.

Restart The Event Proxy Using Windows Services

1. Launch Windows Services on the computer which contains the event proxy.
 - One way to do this is to type **Services** in the search field of the Windows Start menu.
2. Scroll to the service name.

For Ocularis 5: OnSSI Ocularis Event Proxy

For Ocularis 4: OnSSI RC-C RC-I Event Proxy (for Ocularis CS or IS)

For Ocularis 4: OnSSI RC-E RC-L Event Proxy (for Ocularis ES or LS)
3. Right-click the service name and then select Restart.

To Configure the Ocularis 5 Event Proxy

1. Launch the event proxy from the desktop icon or the Windows Start menu. (**Start** → **All Programs** → **OnSSI** → **Ocularis Event Proxy**)

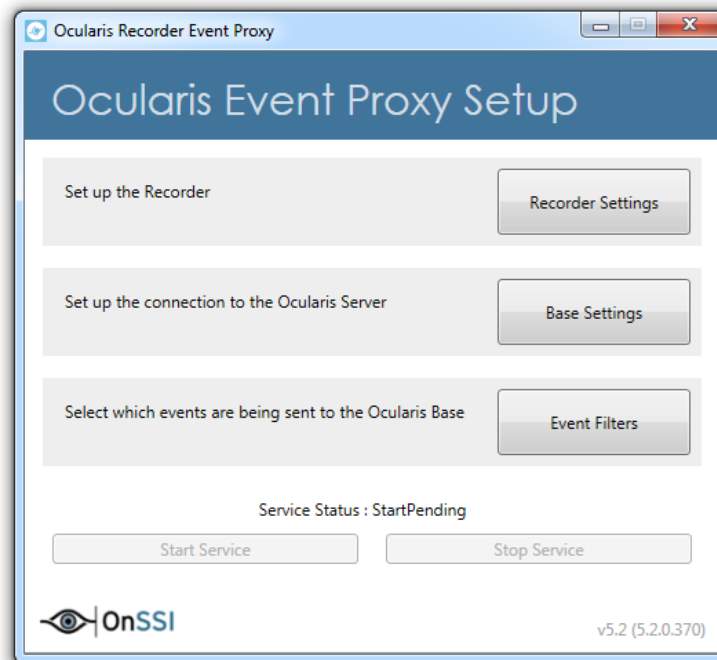


Figure 1 Ocularis Event Proxy

2. The **Recorder Settings** button is the only one enabled. Click this button to enter recorder criteria.

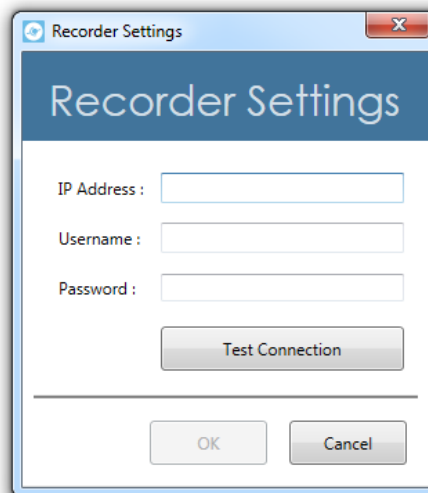


Figure 2 Recorder Settings

3. Enter the **IP Address** for the recorder's master core. Note that *localhost* is not supported. Also provide a username and password for an administrative account that is on the master core.
4. Click **Test Connection**. Communication with the server is tested and if successful, a pop-up message appears indicating as such.
5. Click **Save & Close**.

Once the Recorder Settings pop-up is configured, the **Base Settings** button becomes enabled.

- Click **Base Settings**.

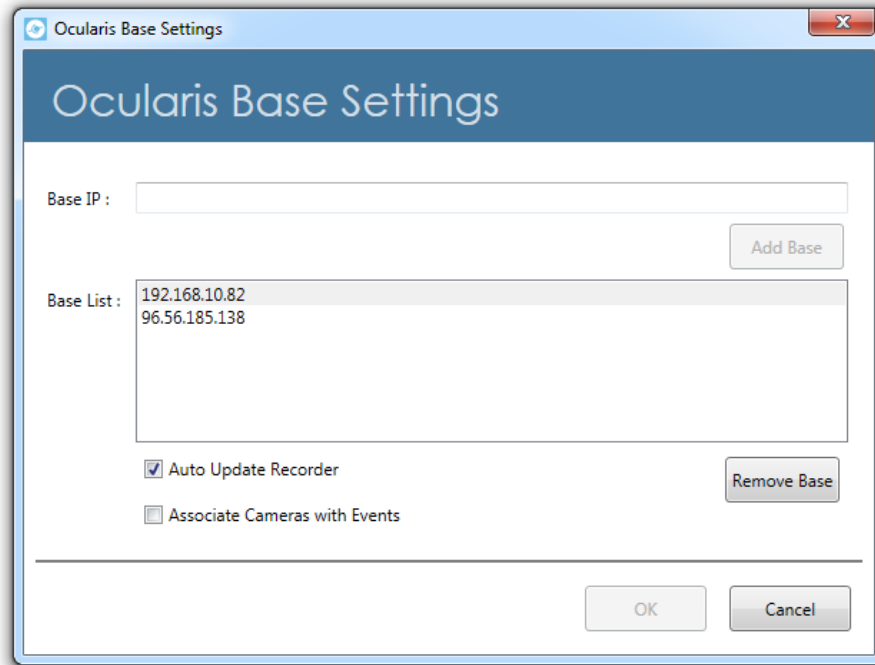


Figure 3 Base Settings

- Enter the IP address of Ocularis Base in the **Base IP** field and click **Add Base**. You can add multiple IP addresses in the Base IP field if you need to send events to additional servers (for example: OpenSight). If you need to remove a Base IP from the list, select it and click **Remove Base**.

If the checkbox 'Auto Update Recorder' is checked, the recorder defined above in Figure 2 will be refreshed in the *Ocularis Administrator* **Servers/Events** tab when the Event Proxy service is restarted. If this recorder isn't already there it will be added automatically to the **Servers/Events** tab. This is a time saving step that allows you to bypass the right-click-Refresh-Server action in the Servers/Events tab of Ocularis Administrator.

If the checkbox 'Associate Cameras with Events' is checked and you are using the 'Auto Update Recorder' to add the recorder to Ocularis Base, the cameras will automatically be associated with their corresponding events, saving you the time to map the camera manually. This only works the first time you add the recorder to the Base.

- When done, click **OK**.
- The last step is to select the events that you wish the proxy to forward to the Base IP(s) you listed. You only need to do this if you are using events. Click **Event Filters**.

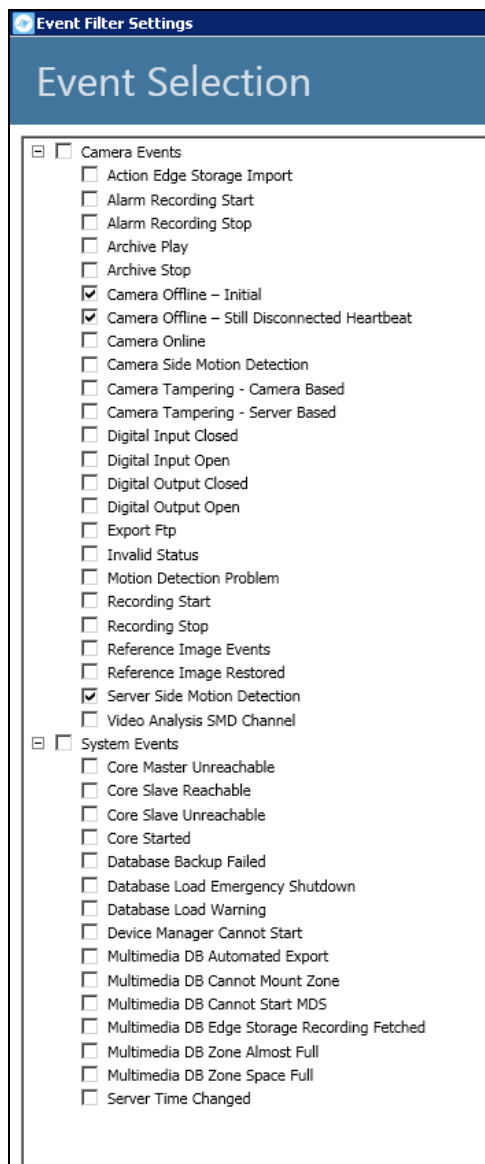


Figure 4 Select Events

The events you see listed are grouped by Camera Events and System Events. Check the events you want transferred from the recorder to the Base. Note: any alarms that you have configured on the recorder will automatically be transferred to the Base.

10. Select the events you wish to monitor. By default, the following events are enabled in a fresh installation:

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

11. Click **Save & Close**.

The Event Proxy Service may be stopped after configuration. If so, click the **Start Service** button.

Event Proxy Events Defined		
Camera Events:		
	Event Name:	Definition:
	Action Edge Storage Import	Edge Storage video was imported from the camera
	Alarm Recording Start	Alarm Recording (such as motion) started
	Alarm Recording Stop	Alarm Recording (such as motion) stopped
	Archive Play	this will be removed; does not apply to Ocularis
	Archive Stop	this will be removed; does not apply to Ocularis
	Camera Offline - Initial	Cameras has gone offline
	Camera Offline - Still Disconnected Heartbeat	Camera remains offline
	Camera Online	Camera is now online
	Camera Side Generic Events	Generic camera event has been triggered
	Camera Side Motion Detection	Camera side motion event has been triggered
	Camera Tampering - Camera Based	Cameras has triggered tampering event
	Camera Tampering - Server Based	Server has triggered camera tampering event
	Digital Input Closed	Camera input has been triggered-closed
	Digital Input Open	Camera input has been triggered-open
	Digital Output Closed	Camera output has been closed
	Digital Output Open	Camera output has been opened
	Export FTP	A DM, MDS or VA MD is not running and did not shutdown cleanly. If the system thinks that a DM should be running but is not, this event will trigger. This could happen when the system is restarted but is may also indicate a major error in the system because an entire DM/VA MD is no longer running.
	Invalid Status	Details unknown
	Motion Detection Problem	Removed in R8
	Recording Start	Recording has started
	Recording Stop	Recording has stopped
	Reference Image Events	Reference Image Comparison event has been triggered
	Reference Image Restored	Reference Image is re-saved
	Server Side Motion Detection	Server side motion has been detected
	Video Analysis SMD Channel	Details unknown
System Events:		
	Core Master Unreachable	Master Core is not reachable
	Core Slave Reachable	Slave Core is now reachable
	Core Slave Unreachable	Slave Core is not reachable
	Core Started	Core server has started
	Database Backup Failed	Backup of Core configuration database has failed

Event Proxy Events Defined		
	Database Load Emergency Shutdown	The database of a core service is almost full (at 90%). To prevent data corruption, the core will shutdown down and is no longer usable. The administrator must take measures to get the core in a good state again (add a database volume, delete events, reduce event storage time, etc.). Although this could happen on any core it is most likely on the master, because only the master stores all events.
	Database Load Warning	The database of a core service has reached a high level (70%). The core will continue to work, but the administrator should investigate and possibly take measures to avoid a "Database Load Emergency Shutdown". Although this could happen on any core it is most likely on the master, because only the master stores all events
	Device Manager Cannot Start	Device Manager Service could not start
	Multimedia DB Cannot Mount Zone	A DM/MDS was not able to mount a configured zone.
	Multimedia DB Cannot Start MDS	The MDS could not start. This is a generic error that means "The DM/MDS does not work".
	Multimedia DB Edge Storage Recording Fetched	MDS Services has retrieved video from a Edge Storage device
	Multimedia DB Storage Overflow	A DM/MDS ran out of disk space and cannot write any new data.
	Multimedia DB Almost Full	Storage Zone is almost full
	Multimedia DB Zone Space Full	Storage zone is full. Video may be deleted
	Server Time Changed	A DM detected that the Windows time changed by more than one hour. This may result in all kind of problems, mainly for recordings.

Appendix A - Event Proxy for Legacy Recorders

Mix and Match Systems

In the case where legacy recorders are used with Ocularis 5 (aka 'Mix and Match'), a new event proxy was issued for these recorders for customers who are using v4 recorders in the v5 Base environment. Updates to these version 4 event proxies can be downloaded from our website at <http://onssi.com/software-downloads/>. Scroll to the section titled 'Event Proxies' and download the corresponding event proxy for your legacy system:

For Ocularis CS or Ocularis IS: RC-C/RC-I Event Proxy

For Ocularis LS or Ocularis ES: RC-E/L Event Proxy

You need to update the version 4 event proxies if:

- the computer it is currently running on is shared by another Ocularis v5 component. The new event proxy is a 64-bit application
- you intend to use Ocularis Web or Ocularis Mobile for cameras on legacy recorders
- you wish to take advantage of multiple live streams (Ocularis LS and ES only)

Ocularis CS and Ocularis IS event proxies need to be installed on the same computer as the recording server. Ocularis LS and Ocularis ES event proxies can be installed anywhere with network connectivity to the Management Server. However, we do recommend installing these on the Management Server computers.

To Configure the RC-C/RC-I Event Proxy

The following describes the functionality of the RC-C/RC-I Event Proxy. Refer to Figure 5.

<i>Field</i>	<i>Description</i>
Name	This is the name to represent the event proxy source. It will appear in the Events pane of the Server / Events tab of <i>Ocularis Administrator</i> . You may edit this field. Use a label to help identify the event proxy in the case where you may have more than one installed. The default value is: <IP Address> (RC-C/RC-I) where IP address is the IP address of the PC on which the event proxy is installed.
Base Server IPs (comma delimited)	Enter the IP address of the Ocularis Base you want the proxy to forward the events to/communicate with. You may forward events to multiple Bases or other servers. In this case, separate each with a comma. For example: 192.168.10.82, 192.168.11.185
Recorder Settings	
Recorder IP	Enter the IP address of the RC-C or RC-I Recording Server.

Field	Description
NetCentral Port	Enter the NetCentral Port as configured in the <i>Management Application</i> . NetCentral is the service that sends events from an RC-C or RC-I recorder. The default port number is 1237.
NetCentral User Name	Enter the NetCentral User Name as configured in the RC-C or RC-I <i>Management Application</i> . This account name may be different than the account used to administer the system.
NetCentral Password	Enter the password for the NetCentral account as configured in the RC-C or RC-I <i>Management Application</i> .
Recorder Server Port	Enter the communication port used by the RC-C or RC-I recording server as configured in the RC-C or RC-I <i>Management Application</i> under 'Server Access'. The default port number is 81.
Recorder Server User Name	Enter an administrator account from the RC-C or RC-I recording server as configured in the RC-C or RC-I <i>Management Application</i> under 'Users'. The default value is 'Engine1User'. Note: if you upgrade an older proxy to this one, be sure to change this field to an actual administrator account on the recorder.
Recorder Server Password	Enter the password for the account above.
Service	
Status	The status of the event proxy service is shown underneath the text 'Service'. If the service is stopped, the word 'Stopped' appears in red. If the service is running the text 'Started' appears in green.
Start	Click this button to start the event proxy service.
Stop	Click this button to stop the event proxy service.
Settings	
Save	Click this button to save any changes.
Advanced	Click this button to open a pop-up for Advanced Settings. You can set the number of minutes to wait before stopping events with no event coordinator connection. The default value is 2. You can check the box to avoid using the event coordinator in the event you are sending events to non-OnSSI systems. See Figure 6.
View Log	Click this button to open a pop-up that displays event communication. This is useful for troubleshooting. See Figure 7.
Build Number	Underneath the OnSSI logo the version and build number is displayed. This is helpful for troubleshooting or when contacting OnSSI Tech Support.
OK	Click OK to accept changes and close the dialog.
Cancel	Click Cancel to close the dialog without saving anything.

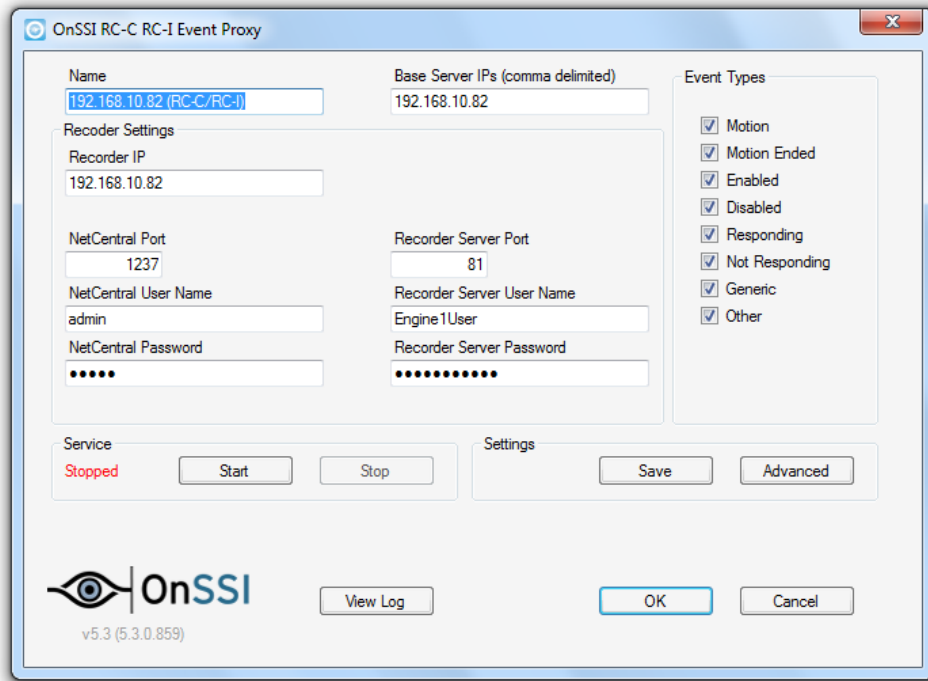


Figure 5 RC-C/RC-I Event Proxy

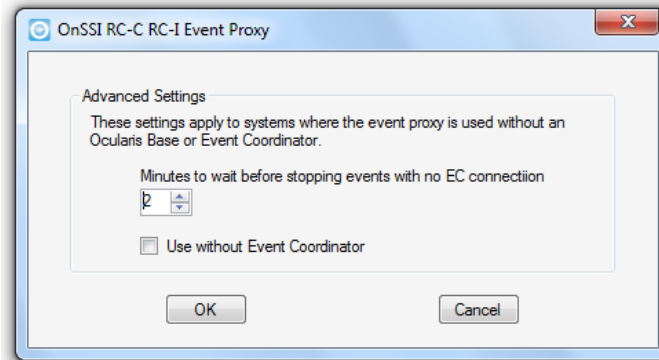


Figure 6 Advanced Settings

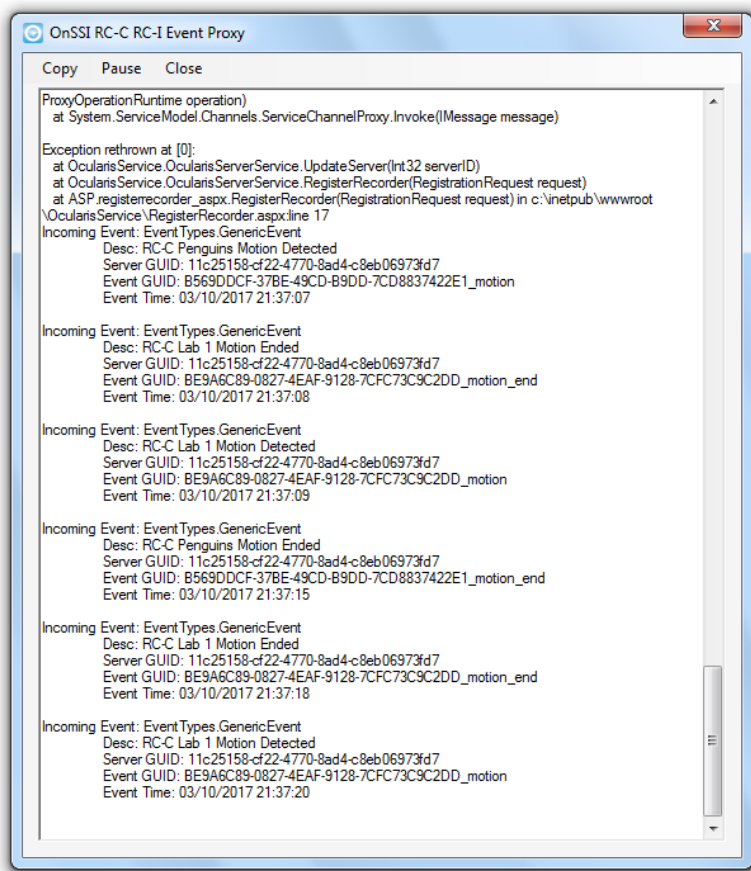


Figure 7 View Log - Sample

To Configure the RC-E / RC-L Event Proxy

The following describes the functionality of the RC-E/RC-L Event Proxy. Refer to Figure 8.

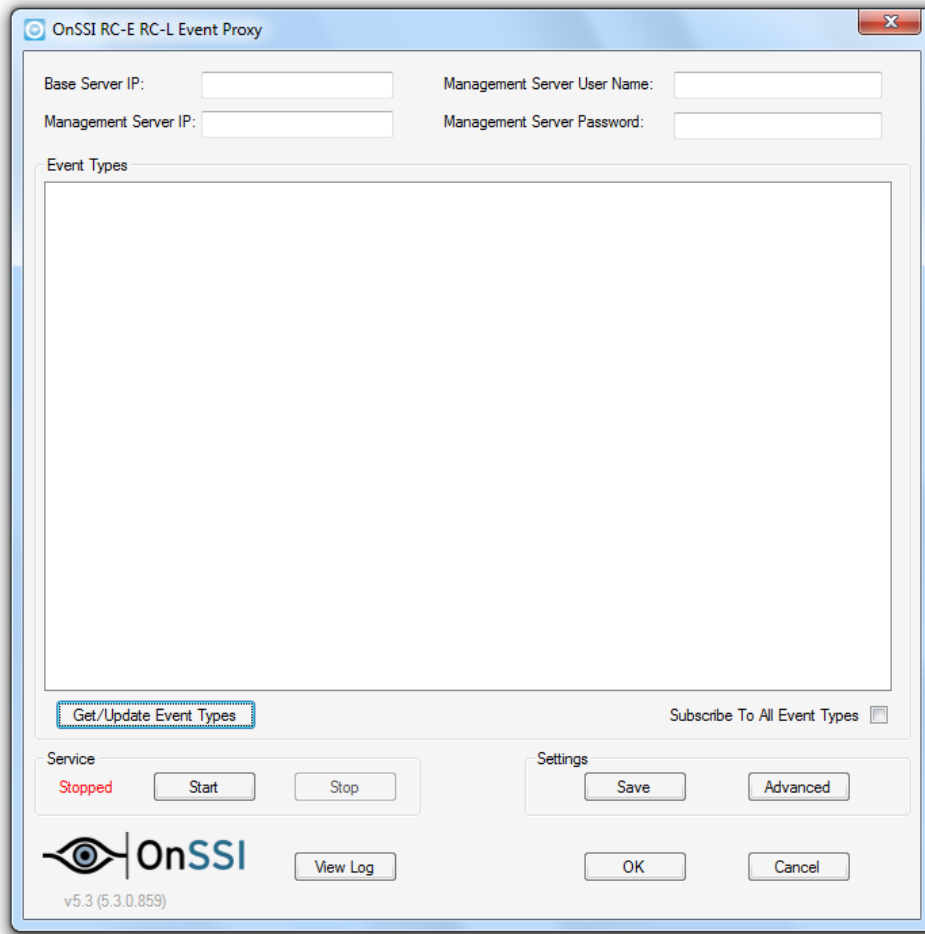


Figure 8 RC-E / RC-L Event Proxy

Field	Description
Base Server IP	Enter the IP address of the Ocularis Base you want the proxy to forward the events to.
Management Server IP	Enter the IP address of the RC-E or RC-L Management Server.
Management Server Username	Enter an administrative account as configured in the <i>Management Client</i> of RC-E or RC-L.
Management Server Password	Enter the password for the above account.
Get/Update Event Types	<p>Once the above criteria has been entered, click this button to download event types from the Management Server. Events will appear in the Event Types screen. See Figure 9.</p> <p>Check each event that you would like to keep track of. Events are grouped by: Device, External, Hardware, Recorder and System.</p>

Field	Description
Subscribe To All Event Types	This checkbox will select or deselect checkboxes for all event types.
Service	
Status	The status of the event proxy service is shown underneath the text 'Service'. If the service is stopped, the word 'Stopped' appears in red. If the service is running the text 'Started' appears in green.
Start	Click this button to start the event proxy service.
Stop	Click this button to stop the event proxy service.
Settings	
Save	Click this button to save any changes.
Advanced	Click this button to open a pop-up for Advanced Settings. You can set the number of minutes to wait before stopping events with no event coordinator connection. The default value is 2. You can check the box to avoid using the event coordinator in the event you are sending events to non-OnSSI systems. See Figure 6.
View Log	Click this button to open a pop-up that displays event communication. This is useful for troubleshooting.
Build Number	Underneath the OnSSI logo the version and build number is displayed. This is helpful for troubleshooting or when contacting OnSSI Tech Support.
OK	Click OK to accept changes and close the dialog.
Cancel	Click Cancel to close the dialog without saving anything.

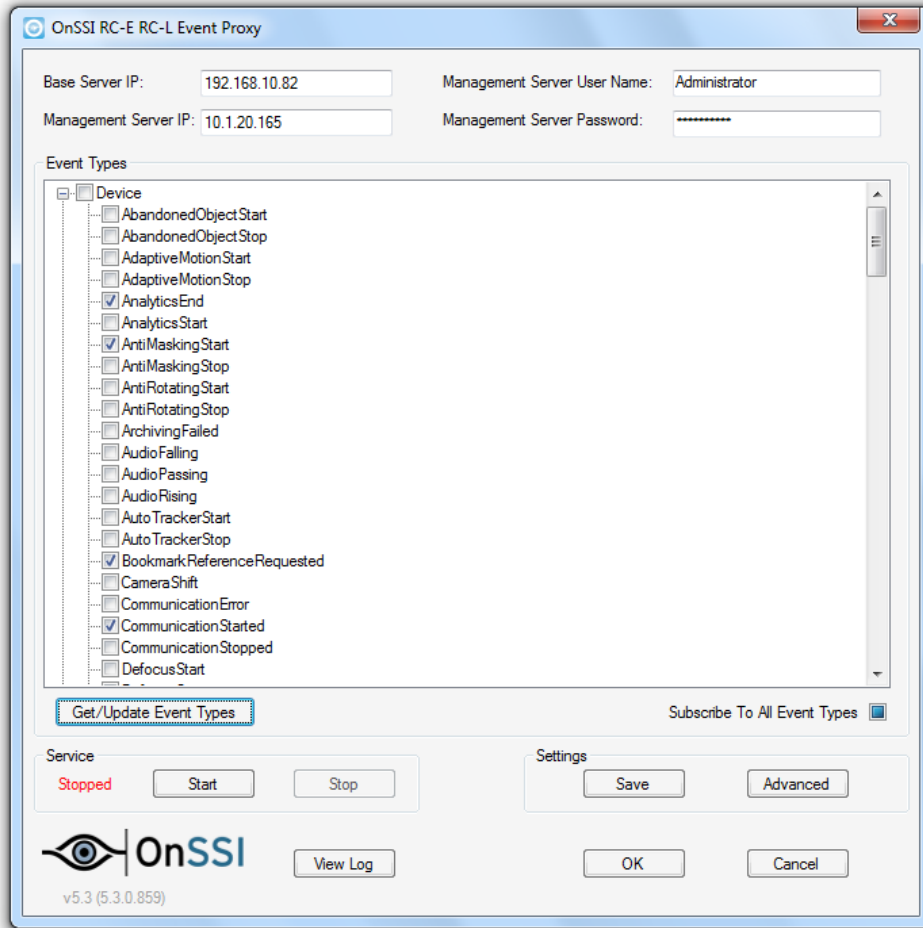


Figure 9 RC-E / RC-L Event Types

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