



Ocularis Installation & Licensing Guide

Version 6.3

July 2024

PROPRIETARY AND CONFIDENTIAL INFORMATION

All information contained herein is confidential, proprietary and the exclusive property of Qognify Limited (Part of Hexagon), and its affiliates ("Qognify"). This document and any parts thereof must not be reproduced, copied, disclosed or distributed without Qognify's written approval and any content or information hereof shall not be used for any unauthorized purpose.

All contents of this document are: Copyright © 2024 Qognify Ltd. All rights reserved.

Revision History

Revision	Purpose for Change	Date
00	GA	July 2024

Contents

1	About This Guide.....	1
1.1	Who Should Read This Guide.....	1
1.2	Related Documentation.....	1
2	Introduction.....	2
3	Where to Install Components.....	3
3.1	Ocularis Professional	4
3.2	Ocularis Enterprise.....	5
3.3	Ocularis Ultimate	6
4	Getting Started with Ocularis	7
4.1	Minimum System Requirements	7
4.2	Installing Ocularis on a New System.....	7
4.3	Upgrading to Ocularis Version 6.1	8
5	Ocularis Installation & Configuration.....	9
5.1	Download the Ocularis Installation File	9
5.2	Extract Ocularis Installation File	10
5.3	Installing Ocularis Base.....	12
5.4	Licensing Ocularis Base.....	16
6	Installing Ocularis Components	23
6.1	Ocularis Component Location	23
6.2	Installing All Ocularis Components	24
6.3	Installing Only Ocularis Client	26
7	Installing Ocularis Administrator.....	28
8	Installing Ocularis Client	30
8.1	Installing Ocularis Client with Default Configuration File	31
9	Installing Ocularis Recorder	33
9.1	Firewalls	33
9.2	Recorder Components	34
9.3	Recorder Component Installation.....	34
9.4	First Time Login to the Recorder.....	43
10	Update Service.....	46
11	Ocularis Recorder Licensing	47
11.1	Supported Recorders	47
11.2	Licensing Online	47
11.3	Licensing Offline	48
11.4	Changes to Server Hardware.....	49
11.5	Updating A License	49
12	Ocularis Recorder Manager	51
13	Ocularis Recorder Proxy	52
13.1	To Install the Ocularis Recorder Proxy	52
14	Ocularis Media Server.....	54

14.1	Ocularis Media Server Components	54
14.2	Specifications	55
14.3	To Install Ocularis Media Server (OMS)	57
14.4	Configuring OMS for Cisco Duo Authentication	59
14.5	Troubleshooting OMS Video	60
15	Qognify Web Client	61
16	Dewarping Plug-In Installation	63
16.1	Plug-In Configuration.....	63
17	Ports.....	66
18	Update Service.....	67
18.1	Update Service Configuration Tool	68
18.2	Configure the Update Service	68

List of Tables

Table 1-1: Related Documents	1
Table 2 Port List for Ocularis	66

List of Figures

Figure 1 Ocularis Professional	4
Figure 2 Ocularis Enterprise	5
Figure 3 Ocularis Installer Extraction Wizard	10
Figure 4 Select Destination Folder	11
Figure 5 Installation Summary	11
Figure 6 Extraction Setup Wizard Complete	12
Figure 7 Activate Now?	13
Figure 8 Ocularis Base Setup Wizard	13
Figure 9 SQL Server Instance	15
Figure 10 Ocularis Base Setup Wizard Complete	16
Figure 11 Unlicensed Ocularis Base	17
Figure 12 Successful Licensing of Ocularis Base	18
Figure 13 Offline Activation Message	19
Figure 14 Additional Steps for Offline Licensing	19
Figure 15 Offline Licensing - Download Button	20
Figure 16 Offline Licensing - response.xml	20
Figure 17 Ocularis License Activation Application	24
Figure 18 Install Ocularis Components Web Page	25
Figure 19 Ocularis License Activation Application	26
Figure 20 Install Ocularis Client Web Page	27
Figure 21 Sample .DLL Error Message	30
Figure 22 Select the Set up Type	35
Figure 23 Communication Information	36
Figure 24 Video Database (Zone) Setup	37
Figure 25 Communication Information	39
Figure 26 Zone Setup	40
Figure 27 Select Components to Install	41
Figure 28 Communication Information	42
Figure 29 Change password for 'admin'	44
Figure 30 Change Backup Password	44
Figure 31 Sample Environment	54
Figure 32 Configuration	58
Figure 33 Calibrate a Sentry360 Camera	64
Figure 34 Sentry360	65
Figure 35 Sample system layout	67
Figure 36 Information tab	69
Figure 37 Group Configuration	70
Figure 38 Global Repository tab	72
Figure 39 Server configuration tab	73
Figure 40 Server configuration tab	77
Figure 41 Updated Ocularis Recorder Update Server Configuration Tool	78
Figure 42 Update time	79

Figure 43 Configure FTP Server Settings.....	80
Figure 44 Manually Download Recorder Patches from the website.....	81
Figure 45 Manual Application of Recorder Patch/Fix-Server configuration tab.....	82
Figure 46 Manual Application of Recorder Patch/Fix - Global repository tab.....	82
Figure 47 Manual Application of Software Upgrade - Server configuration tab	84
Figure 48 Manual Application of Software Upgrade - Global repository tab	84

1 About This Guide

This document describes how to install and license Ocularis and its components.

1.1 Who Should Read This Guide

The information and instructions in this guide are for use by qualified Ocularis installers.

1.2 Related Documentation

Related documents are listed below.

Table 1-1: Related Documents

Document Name	Version	File Type	Date
Ocularis 6.3 Release Notes	6.3	PDF	July 2024
Ocularis Quick Start Guide	6.3	PDF	July 2024
Upgrading to Ocularis 6.3	6.3	PDF	July 2024
Ocularis Administrator Guide	6.3	PDF	July 2024

2 Introduction

Ocularis is offered in models below, designed to meet the needs of organizations of all sizes and structures, from single-location retail outlets or schools, to multiple-site, complex municipal and campus installations.

Ocularis Ultimate (ULT) – Surveillance video management for mobile applications and complex environments with multiple, simultaneous viewing clients.

Ocularis Enterprise (ENT)– Surveillance for locally managed or centrally managed mid to large scale installations.

Ocularis Professional (PRO) – Scalable video management for small to medium single and multi-site applications.

The **Ocularis™ Platform**, regardless of model, consists of the following components:

- **Ocularis Base** – server software application which regulates and manages the flow of data between video client users, recording servers, video wall management, event management and alerting.
- **Ocularis Administrator** - The front-end software application used to configure and manage Ocularis Base.
- **Ocularis Client** – Our award-winning video client application used to view and monitor surveillance video.
- **Ocularis Recording Component** – Camera management and recording software. Each model of Ocularis contains a corresponding recording component application.
- **Ocularis Recorder Proxy** – This component manages many aspects of Ocularis including transmitting events from recorders to Ocularis Base, managing multiple live streams from cameras, handling PTZ presets, optimizing the best stream to use with Ocularis Web or Mobile and much more.
- **Ocularis Media Server**– This component allows for the viewing of Ocularis video using a web browser or mobile device.
- **Optional Add-On Applications** – these currently include:
 - Remote VideoWall
 - Ocularis OpenSight™
 - Various third-party integrations

Add-ons are made available as they are introduced.

For all Ocularis models, configuration of Ocularis is performed using the *Ocularis Administrator* application.

3 Where to Install Components

Ocularis sample system diagrams are shown below and are only an example to represent where different components of Ocularis may be installed. These are by no means the only way the system can be laid out. Contact [Solution Engineering team](#) for pre-installation advice on system layout. All Ocularis components are 64-bit applications.

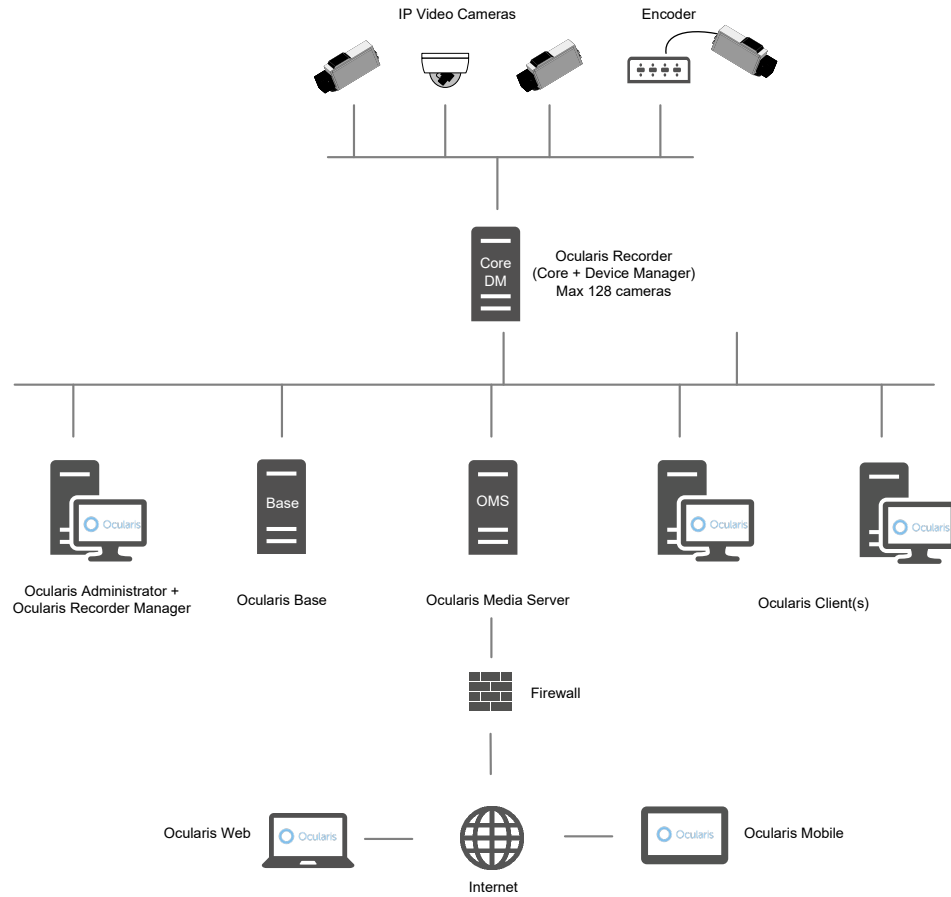
Please note:

- **For Ocularis Ultimate and Ocularis Enterprise, there must be at least one 'Core'. The first Core that is installed is called the 'Main' Core (previously called 'Master'). It is the only core that is required on these systems and in most cases there should be only one Main Core installed. Optionally, you may install an additional core, known as a 'Secondary' core (previously called 'Slave') that automatically provides redundancy for the Main core. Install a 'Device Manager' or DM on each additional computer to support additional cameras. Only one recorder SLC is required in these models.**
- **For Ocularis Professional only, there must be a Main Core and DM on each server. There are no Secondary Cores in this model. Each Main Core requires a unique SLC available from Qognify Sales.**

3.1 Ocularis Professional

Ocularis Professional has a maximum limit of 128 cameras per server. Each server contains a Core (Main) and Device Manager (DM). The Main Core is what is licensed so if you need additional servers, contact Qognify Sales to obtain additional SLCs. **This is the ONLY model where a Main Core is required on each server.**

Figure 1 Ocularis Professional



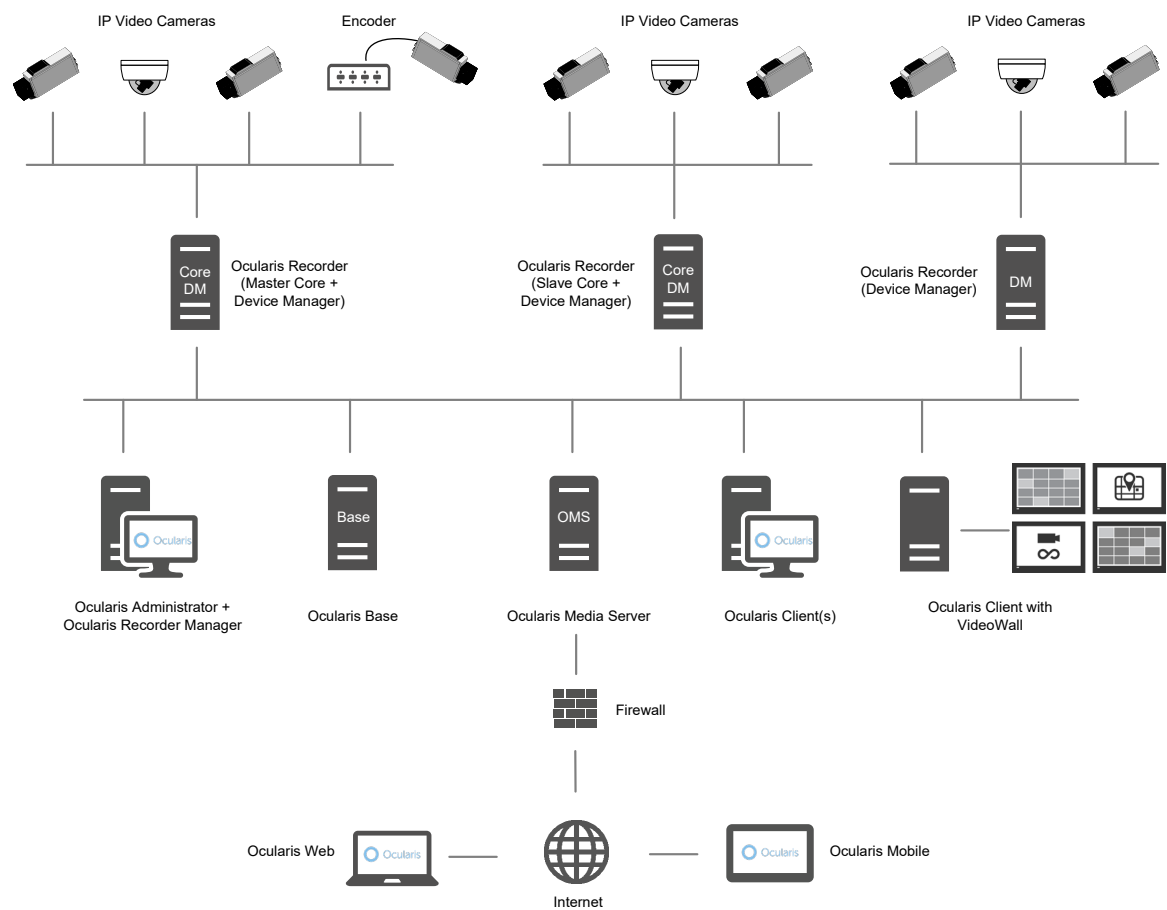
3.2 Ocularis Enterprise

Ocularis Enterprise has no imposed software limitation on the number of cameras per server. It is only limited by the available hardware resources.

On the first server, install a Main Core and Device Manager (DM). Add additional DM servers if you want to add more cameras on a separate machine. You may install a 'Secondary' core as an optional redundant backup for the Main Core. If you have a large environment, you should consider configuring branches on the recording components. See the document [Understanding Branches and Cores with Ocularis 5](#) on the Qognify website.

You are not required to add a core to each server.

Figure 2 Ocularis Enterprise



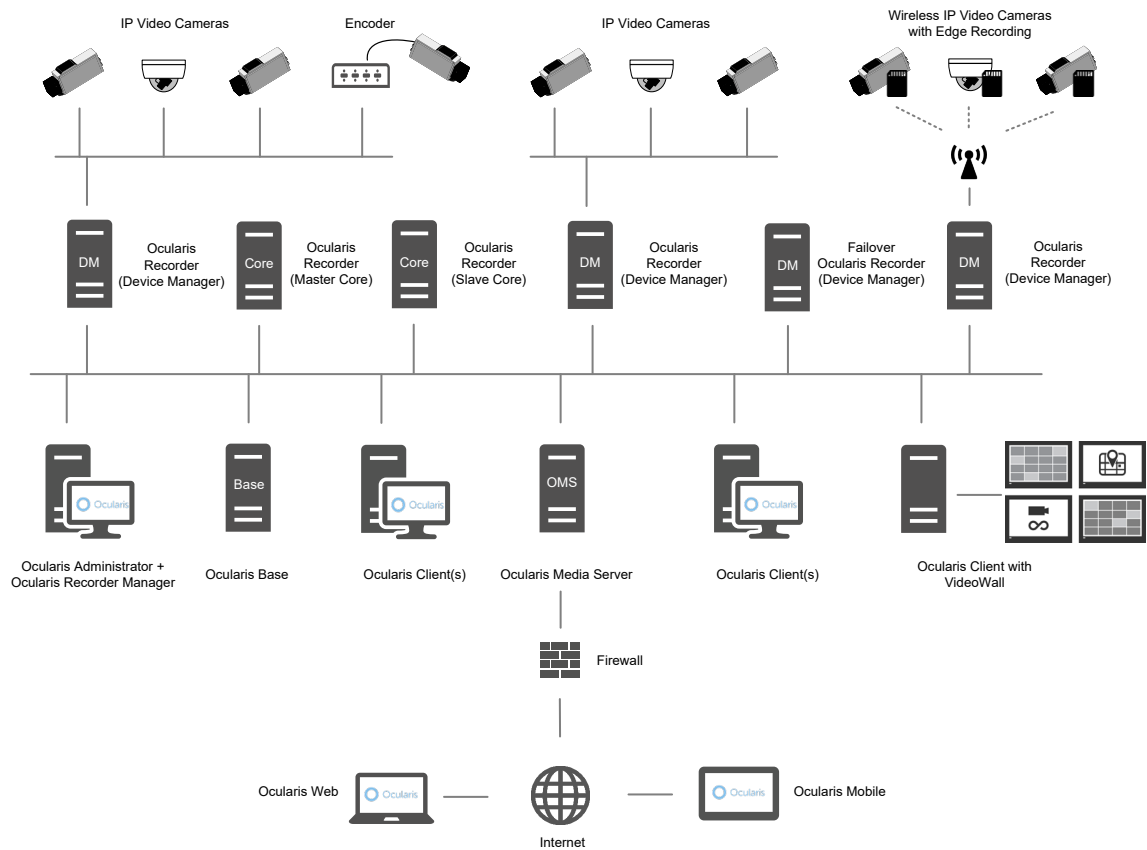
3.3 Ocularis Ultimate

Ocularis Ultimate has no imposed software limitation on the number of cameras per server. It is only limited by the available hardware resources.

On the first server, install a Main Core and optionally a Device Manager (DM). Add additional DM servers if you want to add more cameras on a separate machine. You may install a 'Secondary' core as an optional redundant backup for the Main Core. If you have a large environment, you should consider configuring branches on the recording components. See the document [Understanding Branches and Cores with Ocularis](#) on the Qognify website.

You are not required to add a core to each server.

If you have multiple Device Managers, you may configure them as failover services for each other or configure a standalone machine dedicated as a backup DM. This configuration is done after installation.



If you have any questions or concerns whatsoever regarding where to install components, contact [the Solution Engineering team](#).

4 Getting Started with Ocularis

4.1 Minimum System Requirements

Requirements for individual components may be found at: <https://www.qognify.com/support-training/hardware-recommendations/>.

4.2 Installing Ocularis on a New System

Regardless of model, a recommended process flow to prepare the video management environment with Ocularis on a new system is as follows:¹

1. Download and extract the Ocularis model installation file(s) from <https://www.qognify.com/support-training/software-downloads/>.
2. Install the Ocularis Base software component.
 - In large environments, the Base component should be installed on a dedicated server. In some cases, a dedicated server is not necessary. For Ocularis Professional, for instance, Ocularis Base may be installed on the same PC as the other Ocularis components. As the system grows, additional recorders may be added. Please check with [Sales Engineering](#) if you have any questions on the layout of your system prior to installation.
 - System requirements may be found on the <https://www.qognify.com/support-training/hardware-recommendations/> website for detailed hardware and operating system specifications.
 - Refer to [Installing Ocularis Base](#) on page 12 for details on the software installation.
 - Anti-Virus software must be disabled during the installation of the Ocularis Base component.
3. License Ocularis.
 - Prior to using Ocularis components, you must license your copy of Ocularis Base. See [Licensing Ocularis Base](#) on page 16 for more details on how to activate the software.
4. Install the *Ocularis Administrator* application.
 - This component is automatically installed when Ocularis Base is installed. You only need to manually install it if you would like to use it from another computer. It may be installed on any number of PCs that have network connectivity to the Base computer.
 - Refer to [Installing Ocularis Administrator](#) on page 28 for details on the software installation.
5. Install the Ocularis recording component software.

¹ RecOn5 NVRs come preinstalled with Ocularis software so these installation steps are not required on these devices.

- Ocularis recorders contain the following components:
 - 1.) Main Core Server – this is the service which manages the recorder configuration
 - 2.) Device Manager (DM) – this is the service which manages the cameras and video storage
 - 3.) Recorder Manager – this is the application used to configure the Core and DM
 - 4.) Secondary Core Server (optional and only available in Ocularis ENT and Ocularis ULT)
 - 5.) Recorder Proxy - this component transfers events from the recorder to the Base as well as other things. It is required if using Ocularis Media Server.
 - Most of these components may all be installed on the same PC or separately.
 - If applicable, run any Recorder Update patches that are available.
6. Use the *Ocularis Recorder Manager* application to change the default administrator password of the recorder. This account will be used to import the recorder into Ocularis.
 7. Add and configure video cameras and devices on the recording component.
 8. Install the *Ocularis Client* on at least one workstation.
 - See [Installing Ocularis Client](#) on page 30 for additional instructions on installation.
 9. Configure Ocularis Base using *Ocularis Administrator*.
 - Refer to the *Ocularis Administrator User Manual* for further instructions.
 10. Test connectivity of cameras by logging into Ocularis Base with *Ocularis Client*.
 11. Install any remaining workstations with *Ocularis Client*. Include installing the Xvid Codec if necessary.
 12. Configure the recorder proxy to communicate between the recorder and the Ocularis Base Server. This is required if you will be using Ocularis Web and/or Ocularis Mobile.
 - Installation and configuration of Proxies can be found at the end of this document.
 13. Within 30 days of installing cameras on the recording component(s), you must register the Main Core.
 - See [Ocularis Recorder Licensing](#) on page 47 for further instructions.
 14. (Optional) Install Ocularis Media Server for access to Ocularis video from a web browser (Ocularis Web) or phone app (Ocularis Mobile). If not already present, install the Xvid Codec on the Ocularis Media Server in order to perform video exports in .avi format.

4.3 Upgrading to Ocularis Version 6.3

Refer to the document *Upgrading to Ocularis 6.3* for full details on upgrading an Ocularis system. Use the instructions found here for new installations.

5 Ocularis Installation & Configuration

Items to consider prior to installation:

- Once all components are installed, synchronize the date and time between the server and workstations.
Note: *The time and date tolerance for all PCs using Ocularis is a maximum of five (5) minutes. If the time is off by more than 5 minutes between the Ocularis Base machine and Ocularis Client workstations, log in attempts will fail.*
- The Ocularis Base component should be installed first. After that, the order of installing each component does not matter.
- You must either be logged in as the Windows account 'Administrator' when licensing Ocularis Base or as a user with administrative privileges and select 'Run as Administrator' when launching the licensing application.
- You will need to have your Ocularis Software License Code (SLC) on hand when you license the application.

The following components are outlined in this document:

- [Download the Ocularis Installation File](#)
- [Extract Ocularis Installation File](#)
- [Installing Ocularis Base](#)
- [Licensing Ocularis Base](#)
- [Installing Ocularis Components](#)
- [Installing Ocularis Administrator](#)
- [Installing Ocularis Client](#)
- [Installing Ocularis Recorder](#)
- [Ocularis Recorder Manager](#)
- [Ocularis Recorder Proxy](#)
- [Ocularis Media Server](#)
- [Dewarping Plug-In Installation](#)

5.1 Download the Ocularis Installation File

If necessary, Ocularis software may be obtained from the Qognify website. Follow these instructions to download the installation file.

1. Open a browser and go to the 'Support → Download Software' page on the Qognify website .
2. On the 'Download Software' page, click the link for the Ocularis download: **Ocularis Full Release 6.x** where 'x' is the version number. The most current version will appear at the top of the list of downloads.

3. A short web form appears. Fill out the form and click **Submit**.
You will receive an email containing the link to the download file, any relevant recorder patch updates and links to relevant documentation.
4. Click the link to download the Ocularis installation file.
5. You will be prompted to save the file. Select the desired file location and click **Save**.
The file download may take several minutes depending on your connection speed. Be sure to remember the path to the directory where the files were saved.

5.2 Extract Ocularis Installation File

These steps outline the extraction of the Ocularis installation files and may be used for all Ocularis models and for new or existing installations.

1. Locate the Ocularis installation file. This file may have been downloaded from the Qognify website or obtained through other means. The filename is: **Ocularis Installer 6.x.exe** (where 'x' is the version number). The same executable file is shared across Ocularis models. The SLC determines the model once it is applied.

WARNING: THIS PROCESS SHOULD BE PERFORMED ON THE SYSTEM WHERE OCULARIS BASE EXISTS (IF AN UPGRADE) OR WHERE IT WILL BE INSTALLED (NEW).

2. If it is not already there, copy the installation file from step 1 above to the Ocularis Base machine.
3. Double-click the file from step 1 above to launch and begin the file extraction.

You'll see messages regarding the installation validation which may take several minutes.

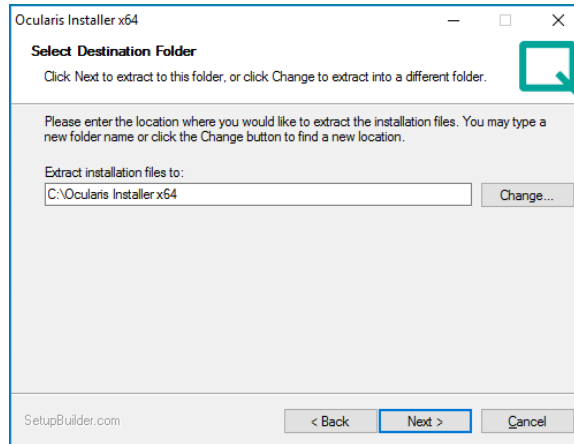
The *Welcome to the Ocularis Installer Extraction Wizard* screen appears.

Figure 3 Ocularis Installer Extraction Wizard



4. Click **Next**.
On the *Destination Folder* screen, you may modify the path for the installation files to be placed.

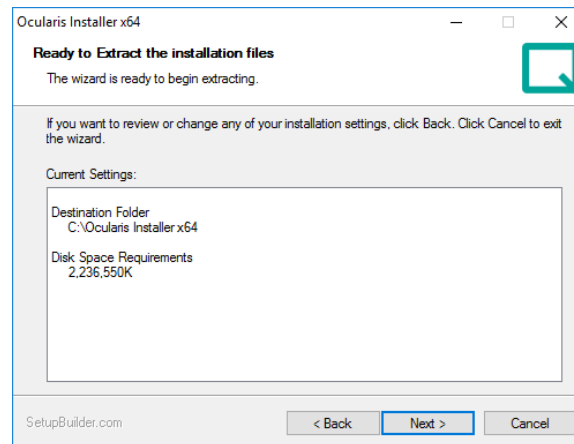
Figure 4 Select Destination Folder



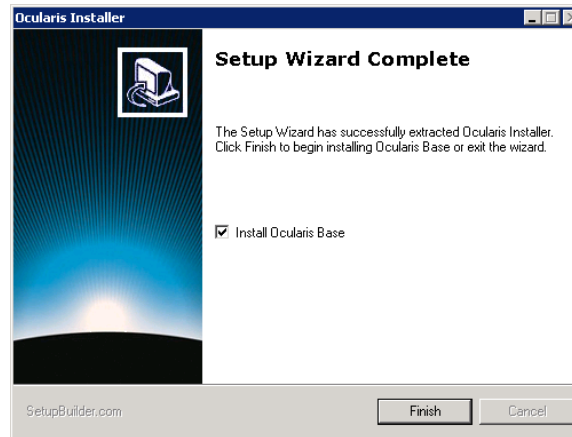
Click **Next**.

5. The *Ready to Extract* summary screen is next. Click **Back** to make changes or click **Next** to proceed.

Figure 5 Installation Summary



Files are extracted and copied to the location specified. This may take several minutes. When all files are extracted, a *Setup Wizard Complete* screen appears. The installation files have been downloaded and unpacked. No applications or components have been installed.

Figure 6 Extraction Setup Wizard Complete

6. If you choose to:
 - a. Install Ocularis Base now: make sure the corresponding checkbox is selected and click **Finish**. Proceed to *Installing Ocularis Base* below.
 - b. If you choose to install Ocularis Base later: uncheck the *Install Ocularis Base* checkbox and click **Finish**. Proceed to *Installing Ocularis Base* below.

You may be asked to reboot the computer. It is recommended to reboot before proceeding.

You have completed the extraction of the Ocularis installation files.

5.3 Installing Ocularis Base

Reminder:

- Prerequisite: please install Microsoft .NET version 4.6.2 (or above) prior to or immediately after installing or upgrading Ocularis Base to save installation time. Microsoft .NET 4.6.2 will require a reboot.
- Anti-Virus software must be disabled during the installation of the Ocularis Base component.
- Follow this procedure when installing a new system or upgrading an existing Ocularis Base component.
- Ocularis Base uses SQL Server to store configuration data. By default, SQL Server Express 2019 will be used unless otherwise specified. Alternate instances of SQL Server may be used for advanced users.

To INSTALL OCULARIS BASE

Use these steps for all models of Ocularis.

WARNING: THIS PROCESS SHOULD BE PERFORMED ON THE SYSTEM WHERE OCULARIS BASE EXISTS (IF AN UPGRADE) OR WHERE IT WILL BE INSTALLED (NEW).

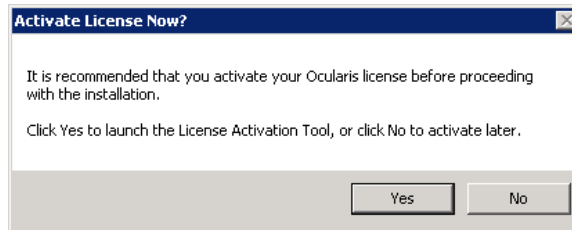
To install Ocularis Base after extracting the installer files (from *Extract Ocularis Installation File* on page 10), go to the directory where the *Ocularis* files were extracted.

These installation files should be located on the Ocularis Base machine. If they are not, copy them to the Ocularis Base system.

The next step differs depending on the installation:

- a. For new installations, a notice appears recommending that you activate Ocularis now before continuing with the installation. This is recommended.

Figure 7 Activate Now?



You will need your Ocularis SLC to activate. Activation will be required at the end of the Base installation if you do not do it now.

- 1. Click **Yes** to activate Ocularis now.

The *Ocularis License Activation* screen appears as shown in Figure 11 on page 17.

- 2. Enter the Ocularis SLC and click **Activate License**.
- 3. Click **OK** on the License Activated pop-up.
- 4. Click **Close** on the *Ocularis License Activation* screen.
- 5. Proceed to step 3 below.

- b. If upgrading Ocularis, a message that a previous installation of this software has been detected. Click **Yes** to proceed with the installation. Be sure to have your new SLC in hand. Click **Yes** when ready.

The *Ocularis Base Setup Wizard* screen appears.

Figure 8 Ocularis Base Setup Wizard



Click **Next**.

The *License Agreement* appears. Please read, click the “*I accept..*” radio button and then click **Next**.

Select the type of installation: **Typical** or **Custom**. *Typical* will install all new files using default settings for file locations and database instance. *Custom* allows you to change these settings. The vast majority of installations should choose ‘Typical’.

Typical:

- c. Select the *Typical* radio button and click **Next**.

Ocularis Base is installed using these default settings:

- Base installation files are placed in `c:\Program Files\Qognify\Ocularis Base`
- Bookmark location is designated as:
`c:\inetpub\wwwroot\OcularisService\Bookmarks`
- Windows IIS is installed
- SQL Server 2019 Express is installed with a Server Name of OCULARISSERVER, SA User Name of sa and an encrypted SA password.

This installation may take several minutes.

Note: You may also see a message about dependencies required such as .Net Framework, SQL Server 2019, VC++ Redistributable 2015-2019 x64 and DirectX9c. Click ‘OK’ to install these (any missing components will be access from the Qognify website).

Custom:

- a. Select the *Custom* radio button and click **Next**.
- b. On the *SQL Server instance* page, most users will use the default selection.

SQL Server Options Defined:

Use Ocularis default SQL Server instance – this default option will install SQL Server 2019 Express for use with Ocularis.

Edit System Administrator login - If you wish to modify the administrator login for the SQL Server instance, click the *Edit System Administrator* login checkbox. The corresponding fields will open to allow entry of the required criteria.

Use another SQL Server instance - If you have an existing SQL Server database that you wish to use, you may select this option. You will be required to enter login credentials for this SQL Server instance.

You need not use the sysadmin account for this. The account you use, however, must be able to create an OcularisUser account and be able to create the VSEvents and/or VSAudits databases. This account must also have db_owner permissions on the VSEvents and VS Audits databases. The name of the account must not contain spaces.

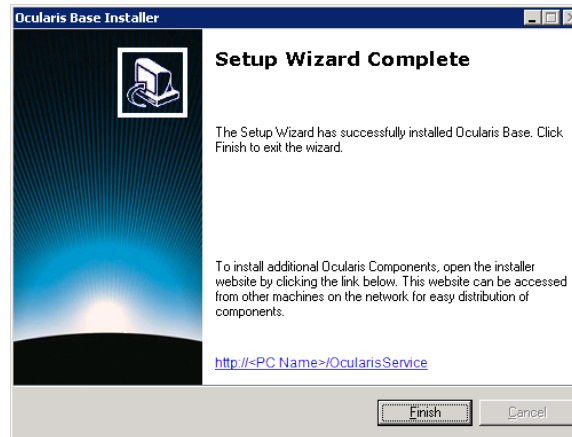
After entering the user credentials, click the Test Connection button. You will be notified if the account does not have the required permissions. You may also use the current Windows User for this SQL account.

- c. When ready, click Next.
- d. On the *Select Bookmarks Folder* screen, you have the option to specify the location for the storage of Ocularis Bookmarks. Change the default location if necessary. When ready, click **Next**.
- e. On the *Select Destination Folder* for Ocularis Base you may modify the directory path for the Ocularis Base files. We recommend using the default but you may modify the path here. Click **Next**.
- f. The next screen summarizes the installation folders and size. Click **Next**.
- g. When prompted enter in the IP Address for the Update Server.

Note: You may see a message about dependencies required such as .Net Framework, SQL Server 2019, VC++ Redistributable 2015-2019 x64 and DirectX9c. Click 'OK' to install these (any missing components will be access from the Qognify website).

The Ocularis Base files are installed to the specified directory and may take several minutes. A new installer website is also created.

When installation is completed, the Setup Wizard Complete for Ocularis Base screen appears.

Figure 10 Ocularis Base Setup Wizard Complete

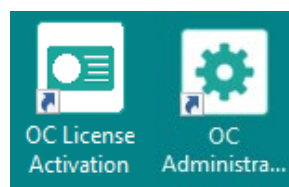
If you licensed Ocularis at the beginning of this procedure, you are done. If you chose not to license Ocularis earlier, you are given the option to activate the Ocularis license upon completion of the wizard. It is recommended (but not mandatory) to do this at this time if you haven't already done so. Ocularis must be licensed before use.

- a. If you choose to license Ocularis now, verify that the *Activate License* checkbox is checked and click **Finish**. The *Ocularis License Activation* application is automatically launched. Proceed to [Licensing Ocularis Base](#) below.
- b. If you choose to activate the Ocularis license later, uncheck the *Activate License* checkbox and click **Finish**.

When you are ready to license Ocularis, launch the *Ocularis License Activation* application from the desktop icon. Proceed to *Licensing Ocularis Base* below.

If you want to launch the Ocularis component download page, click the link above the **Finish** button. If you are finished installing on this computer, click **Finish**.

Along with Ocularis Base, Ocularis Administrator will also be installed. The installation of Ocularis Base will create the following icons on the desktop:



5.4 Licensing Ocularis Base

Once the Ocularis Base component software is installed, an additional licensing step is required.

- All new installations require the Ocularis Base to be licensed with an Ocularis SLC.
- You may license Ocularis automatically, any time of the day or night, 24/7/365!
- Licensing may be done online or offline.

The actions related to Ocularis licenses include:

- **Activating the Ocularis SLC**– Use when licensing Ocularis for the first time or with certain upgrades.
- **Refreshing the Ocularis SLC**– Use when the license status of Ocularis changes.
- **Deactivating the Ocularis SLC**– Use when you need to move Ocularis Base from one computer to another or during certain upgrades.

Note: To use the license activation application, you must be logged into the computer using an account with Windows Administrator privileges.

5.4.1 Activating the Ocularis SLC

Activating an Ocularis SLC is done the first time Ocularis is installed. This applies when the installation is on a brand new system.

The steps to activate are different based on whether the Ocularis Base computer is connected to the internet or not.

- To Activate an Ocularis license with Internet Connectivity
- To Activate an Ocularis license without Internet Connectivity

5.4.1.1 To Activate an Ocularis license with Internet Connectivity

1. Launch the *Ocularis License Activation* application.
2. The first time you license Ocularis, you need to enter your new SLC.
You receive this SLC when you purchase the product.

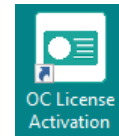
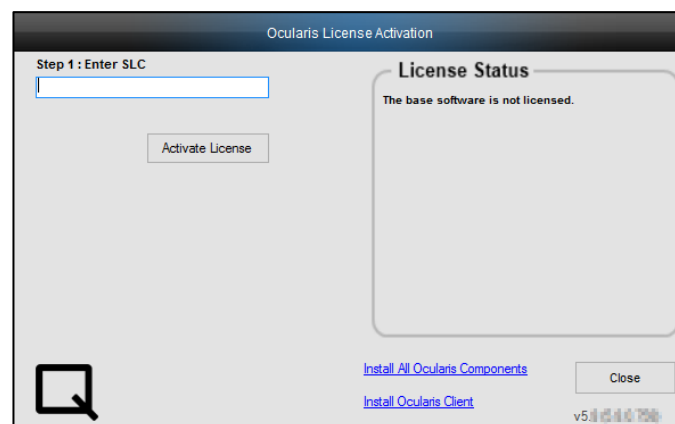


Figure 11 Unlicensed Ocularis Base



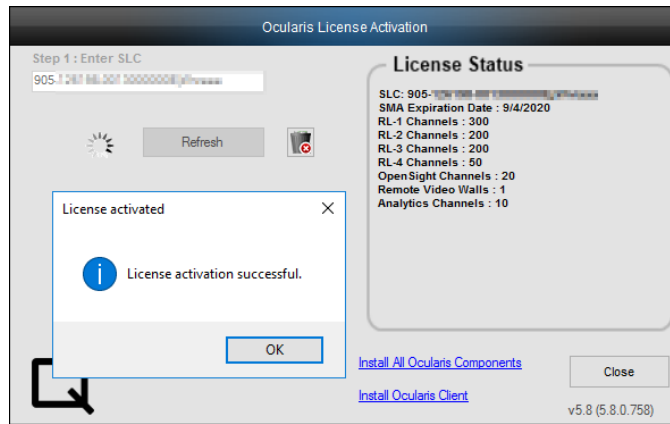
3. Enter the SLC (or paste it from the Clipboard) and click **Activate License**.

The licensing application will collect relevant data including the SLC and send this information over the internet to the Ocularis licensing server. The licensing server validates the information and sends back the activation required to license the software. This process is nearly instantaneous.

If there is no internet connectivity, a message appears indicating as such. You may try again if you think you should have connectivity or click **OK** to proceed with offline activation. See *To Activate an Ocularis license without Internet Connectivity* below.

Once activation is complete, a confirmation pop-up appears. Click **OK**. You are done! The **License Status** area of the *Ocularis License Activation* screen displays updated camera counts and other information based on your SLC.

Figure 12 Successful Licensing of Ocularis Base



A Note about License Counts:

Ocularis v5 uses categories where recorder licenses are assigned. These categories are labeled:

- RL-1 Channels
- RL-2 Channels
- RL-3 Channels

The categories simply represent a counter where similar recorder counts are placed. Since Ocularis supports Mix & Match of recorders, different recorder counts can be combined into the same category.

For example: camera licenses for RC-E and Ocularis Ultimate Recorder would both appear in the category RL-1 Channels. If you had 50 RC-E licenses and 50 Ocularis Ultimate licenses, the RL-1 count would equal 100. This also gives you the flexibility to exchange licenses between the two recorders, allowing you the time and flexibility to migrate cameras from one recorder to another at your own pace.

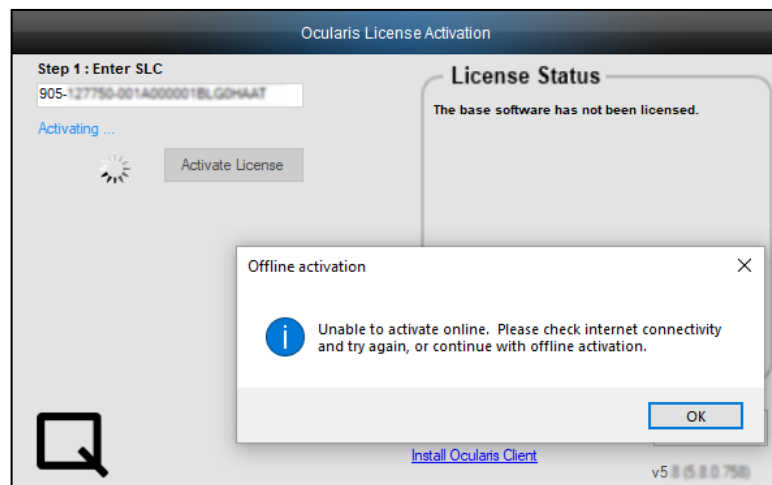
You will see the new RL counts in the Ocularis License Activation application and in the About Tab of the Ocularis Administrator application. Here you can get a detailed breakdown of each specific recorder camera license count.

4. Proceed with *Installing Ocularis Components* below.

5.4.1.2 To Activate an Ocularis license without Internet Connectivity

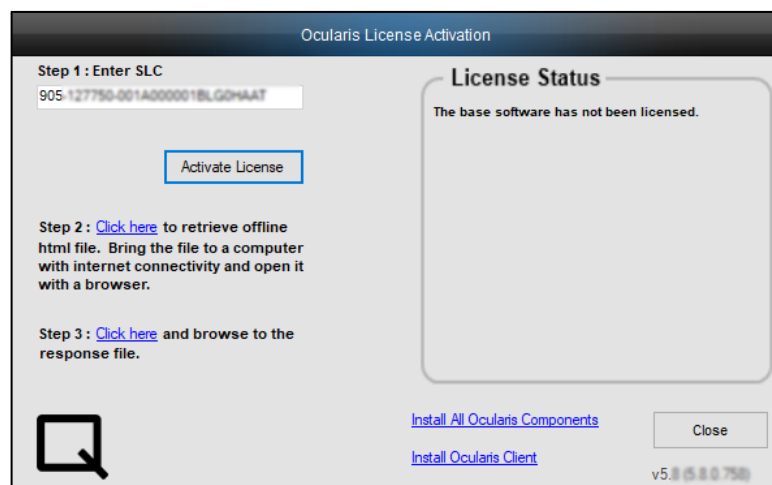
1. Launch the *Ocularis License Activation* application.
2. The first time you license Ocularis, you need to enter your new SLC in the field labeled: **Step 1: Enter SLC**. (see Figure 11 above).
3. Click the **Activate License** button. You will receive a pop-up with the message reminding you that there is no internet connectivity and you should use offline activation. Click **OK** to close this dialog.

Figure 13 Offline Activation Message



4. The screen updates with additional steps:

Figure 14 Additional Steps for Offline Licensing

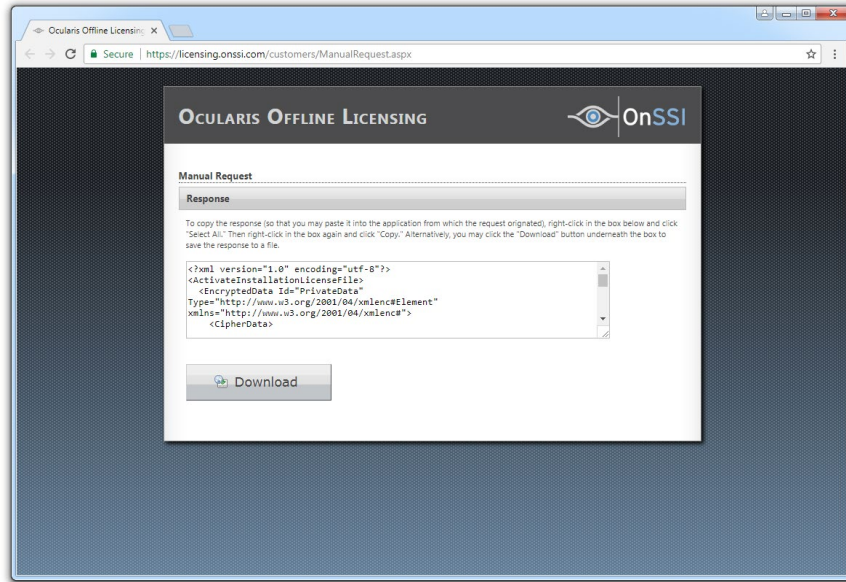


5. Click the link in *Step 2: Click here to retrieve offline HTML file*.
An html file is created named `OcularisActivationRequest.html` and stored in:

```
C:\Program Files\Qognify\Ocularis Licensing Activation
```
6. Copy this file to portable media and bring to a computer that has internet connectivity.

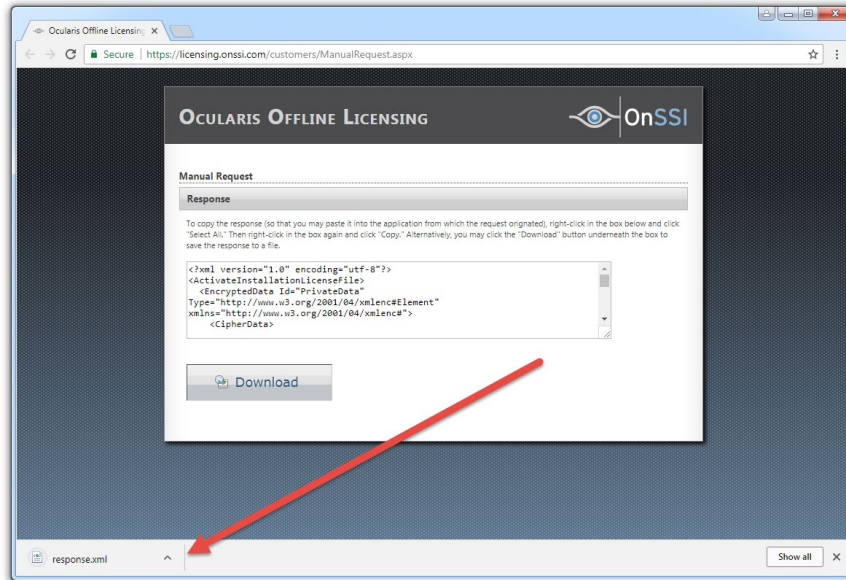
7. Launch the `OcularisActivationRequest.html` file (double-click it).

Figure 15 Offline Licensing - Download Button



8. The default web browser should launch and load a page with a Download button. Click the **Download** button.
9. The browser may ask you if you want to save a file called `response.xml` from `licensing.onssi.com`. Choose **Save As** and save it to portable media.

Figure 16 Offline Licensing - response.xml



10. Bring the `response.xml` file back to the Ocularis Base computer.
11. On the Ocularis License Activation screen (see Figure 14), click the link in *Step 3: Click here and browse to the response file.*

12. In the resulting Windows' Open dialog, browse to the `response.xml` file you just brought from the internet connected machine. Select the file and click **Open**.
13. You should see a 'License Activation Successful' pop-up. Click **OK**.

You are done! The **License Status** area of the *Ocularis License Activation* screen displays updated camera counts and other information based on your SLC. The 'Activate License' changes to 'Refresh' to accommodate future updates.

Proceed with *Installing Ocularis Components* below.

5.4.2 Refreshing the Ocularis SLC

Refreshing your Ocularis SLC is done when a change is made to your Ocularis License. For instance, you add additional camera licenses to Ocularis or you upgrade from a demo version to a retail version. Refreshing is simple but the process differs, depending on the Ocularis Base computer having internet connectivity.

5.4.2.1 To Refresh an Ocularis license with Internet Connectivity

1. Launch the *Ocularis License Activation* application.
2. Click the **Refresh** button. The licensing application will collect relevant data including the SLC and send this over the internet to the Ocularis licensing server. The licensing server validates the information and sends back the activation required to license the software. This process is nearly instantaneous.

Once activation is complete, a confirmation pop-up appears. Click **OK**.

You are done! The **License Status** area of the *Ocularis License Activation* screen displays updated license information based on your SLC.

5.4.2.2 To Refresh an Ocularis license without Internet Connectivity

1. Launch the *Ocularis License Activation* application.
2. Click the **Refresh** button. You will receive a pop-up with the message reminding you to check internet connectivity or refresh offline. Click **OK** to close this dialog. The screen updates with additional steps.
3. Click the link in *Step 2: Click here to retrieve offline HTML file*.

An HTML file is created named `OcularisActivationRequest.html` and stored in:

```
C:\Program Files\Qognify\Ocularis Licensing Activation
```

4. Copy this file to portable media and bring to a computer that has internet connectivity.
5. Launch the `OcularisActivationRequest.html` file (double-click it).
6. The default web browser should launch and load a page with a Download button. Click the **Download** button.
7. The browser may ask you if you want to save a file called `response.xml` from `licensing.onssi.com`. Choose **Save As** and save it to portable media. For subsequent licensing, the file may have the format 'response(x).xml' where the 'x' is 1, 2, etc. based on the number of response files created.


8. Bring the `response.xml` file back to the Ocularis Base computer.
9. On the Ocularis License Activation screen, click the link in *Step 3: Click here and browse to the response file*.
10. In the resulting Windows' Open dialog, browse to the `response.xml` file you just brought from the internet connected machine. Select the file and click **Open**.
11. You should see a 'License Successfully Refreshed' pop-up. Click **OK**.

You are done! The **License Status** area of the *Ocularis License Activation* screen displays updated information based on your SLC.

5.4.3 Deactivating the Ocularis SLC

Deactivating your Ocularis SLC is done when you want to move the Ocularis Base software from one computer to another computer or during certain upgrades. Before you begin, consider that when you move Ocularis Base from one computer to another, the database which stores Ocularis settings, as well as existing Bookmarks, must be moved manually from the source computer to the destination computer. There is also a limit to the number of deactivations for each license. Typically, you may deactivate an Ocularis SLC up to five times. Beyond that, you need to contact Technical Support for further assistance.

5.4.3.1 To Deactivate an Ocularis license

1. Launch the *Ocularis License Activation* application.
2. Notice the *Deactivate License* icon . 

Click the *Deactivate License* icon. You will receive a pop-up with a warning message reminding you that license deactivation stopped the Base from functioning.

3. If you are sure you want to proceed, click **Yes** to deactivate the Ocularis SLC.

On the destination computer, install Ocularis Base (see *Installing Ocularis Base* on page 12) and activate the same SLC on this computer (see *Activating the Ocularis SLC* on page 17). Restore the Ocularis SQL Database and bookmarks (see the document *Ocularis Base Database Backup*). If you had events configured on the original Ocularis Base computer, the event proxies will need to be updated to direct events to this new Ocularis Base IP address.

If the computer does not have internet connectivity, contact Tech Support to deactivate the SLC.

6 Installing Ocularis Components

Components of Ocularis, namely: *Ocularis Client*, *Ocularis Administrator*, Ocularis recording components, *Ocularis Recorder Proxy* and *Ocularis Media Server* are downloaded and installed from a central webpage located on the Ocularis Base machine. This makes installation easy as system administrators need not obtain separate installation files and move them from computer to computer. Since computers running Ocularis components need to have network connectivity to the Ocularis Base system anyway, the installation files for Ocularis components may be accessed from the Base machine.

A local webpage must be launched in order to download Ocularis components. There are two versions of the downloads page.

- [Installing All Ocularis Components](#)
- [Installing Only Ocularis Client](#)

6.1 Ocularis Component Location

Ocularis components may be installed in various locations on a network. The configuration chosen depends on many factors including (but not limited to): the number of cameras licensed, the recording component used and the availability of computer hardware for the system. If you have any questions about what component to install and where, please contact the Solution Engineering Team

6.1.1 Single Server System

In most cases, a single server system will suffice. In this layout, a central server is used as the primary location for the following components:

- Ocularis Base
- Recording Component
- and perhaps even the *Ocularis Administrator* (depending on the graphics card)

A single server system is a good system to start with when first implementing Ocularis, especially on smaller systems (those with less than 30 cameras). In an Ocularis Professional environment, it is even acceptable to run the components on a Windows 7, 8 or 10 PC, rather than a server class machine, provided the camera count is low. Networked workstations will have the *Ocularis Client* installed on them. You may install the *Ocularis Client* component on an unlimited number of workstations.

As the system grows and cameras are added or upgraded, the capacity of the recording component computer will be reached. The expansion process would be to then simply add an additional server on the network to house an additional instance of the recording component and install the new cameras on the new recorder. With Ocularis, the location of the camera is seamless to the operator.

6.1.2 Distributed System

In cases where the systems are larger or with Ocularis Enterprise or Ocularis Ultimate, a multiple server system (also called 'Distributed System') is recommended. In a Distributed System,

separate dedicated servers are used with single components installed on each. The Ocularis Base may reside on one server (with or without a recording component), recording components each on their own servers, and the *Ocularis Administrator* and *Ocularis Client* on one or more networked workstations.

6.1.3 Which system is best for me?

It is important to determine the general layout of where you want components to be installed on new Ocularis installations. In general, it is safe for most users to select a Single Server System and grow into a Distributed System. If you have hundreds of cameras (or more), use a Distributed System as a model. Otherwise, most installations will be fine with a Single Server layout to start.

There is no set formula to determine the layout for each installation, as each organization is unique. The system layouts described here are simply for use as a general guideline. Contact [Solution Engineering](#) for system layout advice if you are unsure.

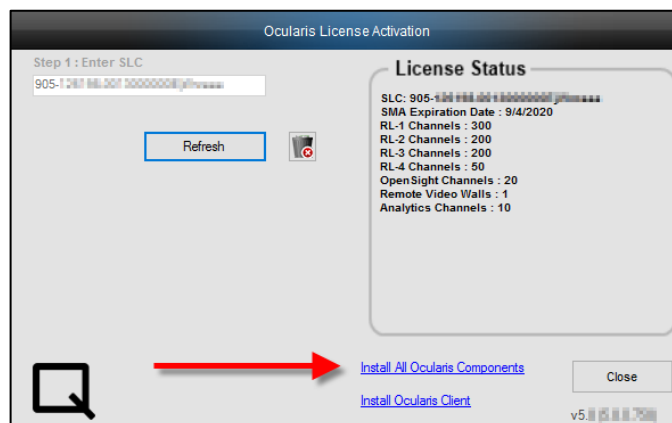
6.2 Installing All Ocularis Components

The primary page which includes all possible Ocularis components to download and install may be accessed in two ways.

6.2.1 To Access The Primary Ocularis Component Downloads Page on the Base PC

You can access the primary Ocularis Component Downloads Page on the Base PC from the Ocularis License Activation application. Click the link **Install All Ocularis Components** to be brought to the page shown in Figure 18.

Figure 17 Ocularis License Activation Application



You may also access the page manually using a browser and typing in the URL as shown below.

6.2.2 To Access the Primary Ocularis Component Downloads Page on a Satellite PC

1. Determine the layout of the Ocularis system and go to the machine where you want to install the component.
2. Access the download webpage located on the Base computer through a browser using the following URL:

`http://[BASE_IP]:[port]/OcularisService`

where **[BASE-IP]** is either the IP Address or computer name of the Ocularis Base machine and port is the IIS port number. In most cases, the default port 80 is used and it is unnecessary to enter it here. This URL will redirect to a longer one, which may also be used:

`http://[BASE_IP]:[port]/OcularisService/InstallerWebsite/install.html`

The following web page appears:

Figure 18 Install Ocularis Components Web Page

OCULARIS

Component Downloads - v5.9.0.374

<p>Ocularis Client Use the Ocularis Client to view video. Install this application on as many workstations as you like.</p>	Download
<p>Xvid Codec (3rd Party Module) This codec is required in order to export AVI video, and should be installed on any system with Ocularis Client or Ocularis Media Server.</p>	Download
<p>Ocularis Administrator Use this configuration tool to manage Ocularis Base. It can be installed on any number of workstations but they all need to have connectivity to the base computer.</p>	Download
<p>Ocularis Recorder This download installs the Ocularis Recorder including the Core Service, Device Manager Service and Ocularis Recorder Manager.</p>	Download
<p>Ocularis Recorder Proxy The Ocularis Recorder Proxy facilitates communication of configuration changes and transmission of events from the Ocularis Recorder to the Ocularis Base as well as manages the display of views and multiple camera streams. This is required on all systems.</p>	Download
<p>Ocularis Media Server Ocularis Media Server allows for web and mobile access to live and recorded video.</p>	
<p>Remember: If you will be using Ocularis Mobile on your phone or tablet, you must download the new Ocularis 5 Mobile app from either the Google Play Store or Apple App Store.</p>	Link to Qognify
<p>The installer can also be downloaded directly at https://www.qognify.com/support-training/software-downloads/</p>	
<p>Ocularis Client Dewarping Plug-ins Ocularis Dewarping Plug-ins allow Ocularis Client users to dewarp, pan, tilt and zoom supported cameras with 360-degree lenses.</p>	
<p>Plug-ins for the corresponding manufacturer or lens must be downloaded from the Qognify website and installed on the Ocularis Base machine only. Use the Ocularis Administrator to configure the dewarping properties of each camera after installing the plug-in.</p>	Link to Qognify
<p>Plug-ins can also be downloaded directly at https://www.qognify.com/support-training/software-downloads/</p>	
<p>Documentation and more downloads available at www.Qognify.com</p>	

3. Click the **Download** button next to the component you wish to download and install.
4. You may be asked whether to run or save the installation file for the component. You may save the file locally and run it later or simply run it now. Click the file to launch the installer.

The installation for each component will continue. See the instructions below specific to each component.

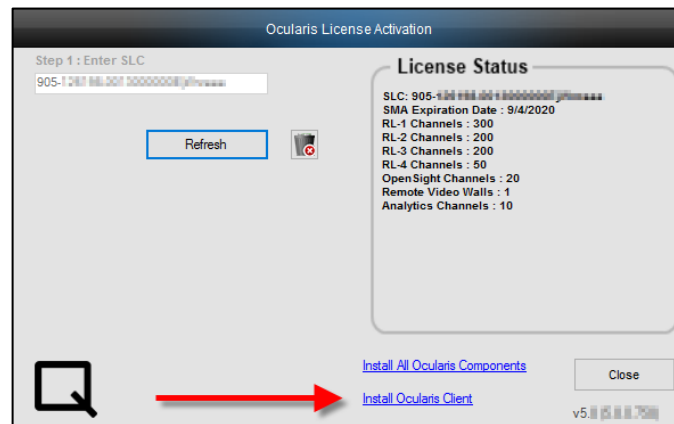
6.3 Installing Only Ocularis Client

There is an abbreviated webpage which includes the ability to download and install only Ocularis Client and the Xvid Codec. Sometimes, System Administrators prefer to provide access to this page to allow individuals to install only Ocularis Client and Xvid. This prevents unnecessary installation of other Ocularis components.

6.3.1 To Access The Client Only Downloads Page on the Base PC

You can access the abbreviated Ocularis Component Downloads Page on the Base PC from the Ocularis License Activation application. Click the link **Install Ocularis Client** to be brought to the page shown in Figure 20.

Figure 19 Ocularis License Activation Application



You may also access the page manually using a browser and typing in the URL as shown below.

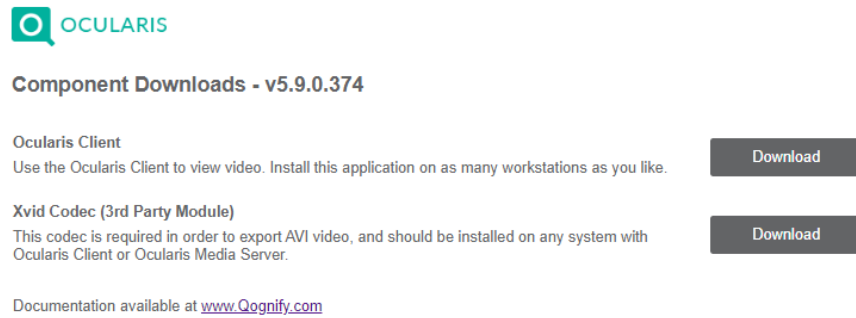
6.3.1.1 To Access the Client Only Downloads Page on a Satellite PC

1. Access the abbreviated download webpage located on the Base computer through a browser using the following URL:

```
http://hostname/OcularisService/InstallerWebsite/client.html
```

where **[hostname]** is either the IP Address or hostname of the Ocularis Base machine and port is the IIS port number. In most cases, the default port 80 is used and it is not necessary to enter it here.

The following web page appears:

Figure 20 Install Ocularis Client Web Page

2. Click the **Download** button next to the component you wish to download and install.
3. You may be asked whether to run or save the installation file for the component. You may save the file locally and run it later or simply run it now. Click the file to launch the installer.

The installation for each component will continue. See the instructions below specific to each component.

7 Installing Ocularis Administrator

- Refer to the system requirements defined on the Qognify website for hardware specifications.
- Microsoft .NET 4.6.2 or later is required. If it is not already installed on the computer, the installation process will install it for you. Or you may manually install it prior to Ocularis Administrator installation to save time. Microsoft .NET 4.6.2 will require a reboot.
- The *Ocularis Administrator* must have network connectivity to the computer where the Ocularis Base software is installed.
- Prior to using *Ocularis Administrator* on a new system, you must license your copy of Ocularis Base. See [Licensing Ocularis Base](#) on page 16 for more details.
- Follow this procedure when installing a new system or upgrading an older version of *Ocularis Administrator*.

TO INSTALL OCULARIS ADMINISTRATOR

Starting with v5.6, the Ocularis Administrator component will automatically be installed on the same computer as Ocularis Base. Ocularis Administrator may be installed anywhere on the network and there is no limit to the amount of installations. These instructions assume that you have installed Ocularis Base and are located at another system on which you wish to install *Ocularis Administrator*. Use these steps for all models of Ocularis.

1. From the 'Ocularis Component Downloads' web page, click the **Download** button next to Ocularis Administrator.

You may be prompted to run or save the file; you may choose to either run it now or save it and run the installation later. In a new installation, an extraction wizard screen will appear. Follow the prompts to extract the files and then you'll see the *Welcome to Ocularis Administrator Setup Wizard* screen.

Launch file to run. Once **Run** has been selected, the *Welcome to Ocularis Administrator Setup Wizard* appears. Click **Next**.

The *License Agreement* appears. Please read, click the "I accept.." radio button, and then click **Next**.

If a previous version of the *Ocularis Administrator* is detected, a notice will appear asking for your confirmation to uninstall the older version and install the new version. Click **Yes**.

- a. An "Are you sure you want to remove Ocularis Administrator...?" screen appears. Click **Yes**.
- b. When the uninstall is complete, click **OK**.

The *Select Destination Folder* screen appears.

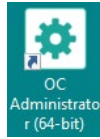
You may leave the default directory path as is or change it if necessary according to your organization. If installing a version to be used as a demo, keeping the default path is recommended. Click **Next**.

The next screen, *Ready to Install the Program*, will confirm the file path and disk space requirements. Click **Next** if OK. Click **Back** to make changes to the directory path or the folder.

Enter the IP Address of the Update Server.

The *Ocularis Administrator* software is installed.

When completed, the *Setup Wizard Complete* for *Ocularis Administrator* screen appears.



Click **Finish**.

The installation of *Ocularis Administrator* will create the following icon on the desktop:

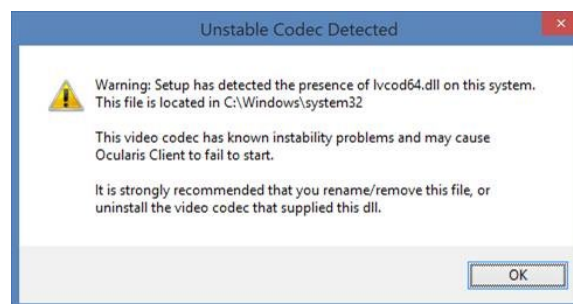
For configuration instructions, refer to the *Ocularis Administrator User Manual* found on the Qognify website.

8 Installing Ocularis Client

- The *Ocularis Client* may be installed on as many systems as desired.
- Refer to the system requirements defined on the Qognify website for hardware specifications.
- Microsoft .NET 4.6.2 or later is required. If it is not already installed on the computer, the installation process will install it for you. Or you may manually install it prior to Ocularis Client installation to save time. Microsoft .NET 4.6.2 will require a reboot.
- If you want to install Ocularis Client silently, without any prompts or Windows, run the installer with a "/s" parameter. Using the /s parameter allows System Administrators to easily push out new versions using tools such as SCCM (System Center Configuration Manager).

New to Ocularis 6.0: to also specify the Update Server IP Address enter in: "Ocularis Client.exe" /S /V UPDATESERVER_ADDRESS "IP of Update Server"
- **If installing Ocularis Client using the Ocularis Client .MSI installer**
 - The Update Agent installer must be run separately
 - If using SCCM (or similar), here is how to install the Update Agent silently: `msiexec /i <path to Qognify.UpdateAgent.msi> /qn UPDATESERVER="IP Address of Update Server"` (i.e. `msiexec /i "C:\Users\Administrator\Desktop\Qognify.UpdateAgent.msi" /qn UPDATESERVER="192.168.6.5"`)
- As part of the software installation, the installer looks in **c:\Windows\System32** for problematic .dlls related to certain video codecs. If it locates these you will see the following message:

Figure 21 Sample .DLL Error Message



If you receive this message, rename or remove the listed .dll file(s) in order for Ocularis Client to properly run.

TO INSTALL OCULARIS CLIENT

These instructions assume that you have installed Ocularis Base and are located at the system on which you wish to install *Ocularis Client*. Use these steps for all models of Ocularis.

1. From either of the 'Ocularis Component Downloads' web pages (see Figure 18 and Figure 20), click the **Download** button next to Ocularis Client

In a new installation, an extraction wizard screen will appear when you execute the file. Follow the prompts to extract the files and then you'll see the *Welcome to Ocularis Client Setup Wizard* screen. Click **Next**.

The *License Agreement* appears. Please read, click the "I accept.." radio button and then click **Next**.

The *Select Destination Folder* screen appears. You may leave the default directory path as is or change it if necessary according to your organization. If installing a version to be used as a demo, keeping the default path is recommended. Click **Next**.

The *Select Language* screen appears. Select the desired language for *Ocularis Client* from the drop-down menu. The language may be changed again after the software has been installed. Click **Next**.

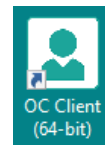
The next screen, *Ready to Install the Program*, will confirm the file path and disk space requirements. Click **Next** if OK. Click **Back** to make changes to the directory path or the folder.

Enter the IP Address of the Update Server.

The *Ocularis Client* software is installed.

When the *Ocularis Client* Setup is completed, the *Setup Wizard Complete for Ocularis Client* screen appears. Click **Finish**.

The software installation will result in the display of the following desktop icon:



For instructions on how to use Ocularis Client, refer to the *Ocularis Client User Manual* found on the Qognify website.

8.1 Installing Ocularis Client with Default Configuration File

For the ease of deploying the Ocularis Client to new systems, it is possible to install Ocularis with a default configuration on the system.

There are two ways to do this:

8.1.1 System that never had Ocularis Client on it

Here are the steps:

1. Create a file called `ocularisdefault.xml` and place it in the `C:\ProgramData\OnSSI\OcularisClient` folder (the files must reside in this location)

2. When Ocularis Client is installed, the software will look at the C:\ProgramData\OnSSI\OcularisClient folder to see if it contains the ocularisdefault.xml file. If the file exists, the installer will read the file and set the default behavior for the Ocularis Client.

8.1.2 Telling Ocularis Client to look for the default configuration file

When running Ocularis Client from the command prompt, add in "/initial" followed by the path to the file. For example, "OcularisClient.exe /initial C:\Config" .

Note that the software always looks for the filename ocularisdefault.xml. It is not possible to use a different filename.

Here are the allowed fields in the ocularisdefault.xml file

```
<config>
<username>george</username>
<server>192.168.10.1; 192.168.10.2</server> (separate more than one IP Address with a
semicolon)
<authentication>Current</authentication> (options are "Basic," "Current," "Windows")
<remember>Yes</remember>
<auto>No</auto>
</config>
```

9 Installing Ocularis Recorder

- The Ocularis Recorder may be installed on the same computer as other components including legacy recorders (pending available system resources).
- Refer to the system requirements defined on the Qognify website for hardware specifications.
- Multiple scripts are used for installation, so you should disable any active virus scanners for the duration of installation.
- The Ocularis Recorder must not be installed on a compressed drive, since this can result in problems with the database. A drive on which Ocularis Recorder is already installed must not be compressed subsequently.
- DirectX and Microsoft .NET 4.6.2 are installed during installation. After which the system may require a restart.
- The recording component included with Ocularis requires a corresponding recorder license (SLC). This code is used to generate a file (license.key or license.zip) that is imported using the *Ocularis Recorder Manager* application after the software is installed.
- The server software (Core Service) can only be installed on computers with the NTFS file system.
- You may be asked to install Microsoft Visual C++ during the installation.
- Server Side Motion Detection requires a component of Windows Media player to function properly. This is not normally installed by default on a Server level operating system. It can be installed with the 'Desktop Experience' feature available within the 'Programs and Features – Add Windows Features' section of the Windows Control Panel.
- Ocularis Recorder components should not be installed on top of existing Ocularis recorder components. Take advantage of the Update Service for upgrading versions.

9.1 Firewalls

- Multiple ports on the computer must be available by default to allow the Ocularis Recorder software to function correctly in a network environment with a firewall. These are in the range from 60000 to 60008 (TCP communication), 63000 (TCP) and 60007 (UDP, image transmission).
- The TCP alarm ports of the camera must also be accessible on the server computer that administers a camera to guarantee alarm processing.
- Some cameras use the 'RTSP over RTP over UDP' standard for MPEG4 image transmission. In this case, the server sends the requirements (e.g. frame rate and resolution) to the camera via TCP port 554. The camera sends the image data to the server via a UDP port.

The corresponding ports must therefore not be blocked between the camera and the server.

The versions of recording components included with Ocularis version 6.0 include:

Ocularis Professional Recorder R16 v6.16.1_XX
Ocularis Enterprise Recorder R16 v6.16.1_XX

Ocularis Ultimate Recorder R16 v6.16.1_XX

9.2 Recorder Components

These recorders have the following components:

- **Core Service** – This service authenticates users, permissions and some alarms. It runs as a service. There may be many cores in an installation but there must be at least one 'Main' core. In Ocularis Enterprise and Ocularis Ultimate you can set up one core ('the Secondary') to be redundant for the primary ('the Main') core. In Ocularis Professional, there is a 'Main Core' on each recording component server.
- **Device Manager (DM)** – This service communicates with devices (cameras) and clients. There may be many DMs in an installation. In Ocularis Ultimate and Enterprise, you may set up one DM to be a failover (redundant recorder) for another DM in the event of a DM failure. In Ocularis Professional, there is a DM on each computer with a Main Core.
- **Ocularis Recorder Manager** – This is the software application used to configure the Core and DM(s).

9.3 Recorder Component Installation

These instructions assume that you have installed Ocularis Base and are located at the system on which you wish to install the Ocularis Recorder.

Reminder: the operating system on which you install this component must be 64-bit.

There are four setup types for installation:

- a. [Standard installation \(Manager & Server\)](#)
Use this set up type to install all recorder components on the current system.
- b. [Manager Installation only](#)
Use this set up type to install only the Ocularis Recorder Manager software on the current system.
- c. [Device Manager Installation](#)
This set up type installs the Device Manager (DM) component as well as the Ocularis Recorder Manager software on the current system. A 'Device Manager' is equivalent to 'Recorder' and the terms are used interchangeably.
- d. [Custom Installation](#)
This setup type allows you to pick and choose which component you would like to install on the current system.

The steps below outline each of the four setup types.

NOTE:

- **With Ocularis Professional ONLY you must install a Main Core along with a DM on each server. You may use the 'Manager & Server' option for each recording server. Each server requires a unique SLC from Qognify Sales.**

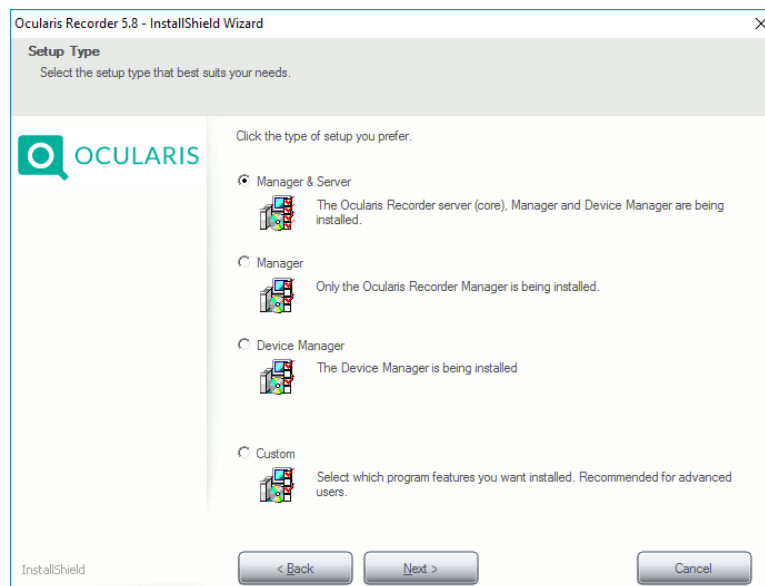
- With Ocularis Enterprise or Ultimate there should be only one Main Core and optionally one or more Secondary Cores in the entire environment. Use the 'Manager & Server' option only on the first computer. Each additional server will have just a 'Device Manager' or use 'Custom' to install a DM and a 'Secondary' core. These models use only one SLC per environment. We recommend installing at least one Secondary core at the company level.

9.3.1 Standard installation (Manager & Server)

The standard installation installs the system with the managers (configuration application also called the 'Ocularis Recorder Manager' and device manager) and Server ('Core') on a single system ('Manager & Server').

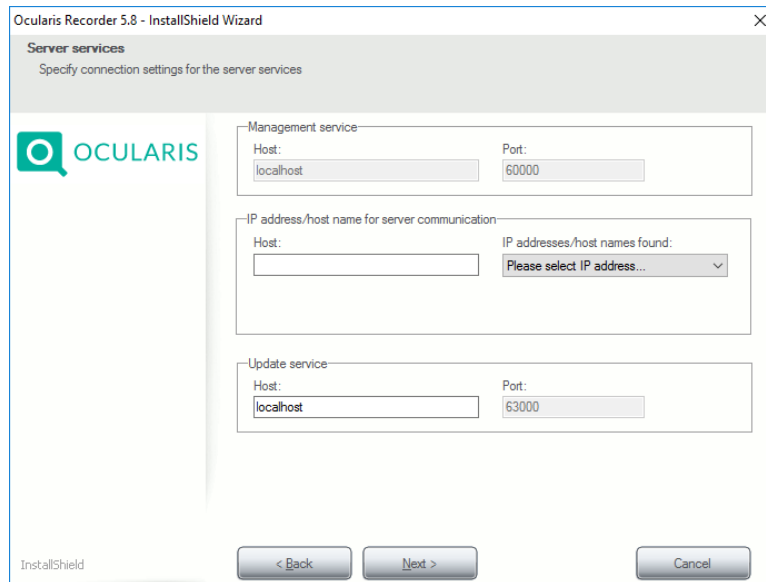
1. From the 'Ocularis Component Downloads' web page, click the **Download** button next to Ocularis Recorder.
2. Choose to *Run* the application to launch the installer.
3. Select the installation language. You can configure the language of the user interface after installation.
4. Click **OK** to start installation.
5. At the *Welcome* screen, click **Next**.
6. Read the software license agreement, accept the terms and then click **Next**.
7. Change the destination folder if desired. Click **Next**.

Figure 22 Select the Set up Type



8. Select 'Manager & Server' as the Setup Type and click **Next**.

Figure 23 Communication Information



The port number of the Management service (Main Core) is set at '60000'. If the port number must be changed, contact Tech Support.

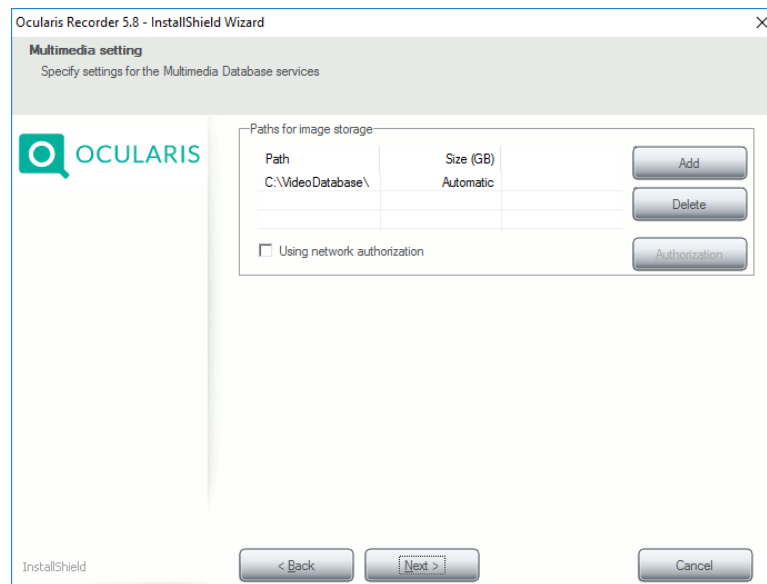
9. In the Host field under *"IP address/hostname for server communication,"* enter the IP Address for the Device Manager. Select it from the drop-down list labeled 'IP addresses/host names found'. This should be the IP Address of the computer you are running the installation on.

Neither the IP 127.0.0.1 nor the host name 'localhost' may be used in this field.

In the *Update service* section, 'localhost' is acceptable if you are installing the UpdateService SVR on the Main Core Server. This is the default value and is recommended. See *Update Service* on page 46 for more information on the Update Service.

Click **Next**.

Figure 24 Video Database (Zone) Setup



10. If you want, alter the existing path for image storage, or delete or add additional folder paths. Additional locations or 'zones' for video storage may be added now or after the software has been installed. Use a subfolder and not the root of a drive for a zone. If the folder is created on a network drive, enter the complete UNC path.

Example: \\IP Address\Release name\path

If the network drive is protected with a user name and password, select **Using network authorization** and click **Authorization**.

Enter the user name and password for accessing the network drive, and then click **OK**. Ensure that the specified user is available locally and that the domain is included in the user name field (e.g., "Domain\User name").



A Note About Zones

- A zone should never be as large as the available maximum storage space on the hard disk.
- The hard drive's cluster size should be 64KB.
- You can use a maximum of 10 zones per DM; each zone should be on its own dedicated partition; it is better to have few larger zones than many smaller zones that this impacts performance
- It is recommended to store video data on a separate hard disk or RAID system. Do **NOT** use a hard disk connected via USB or firewire.
- Zones on the network may be identified with a UNC path. You'll also need to provide network username and password.
- Always use a subfolder for a zone and not the root directory.

Click **Next**.

11. Click **Install**.
12. When asked, accept the EULA (End User License Agreement) for installing the Microsoft DirectX 9 component. This window may appear behind the primary installation window.
You may be asked to restart the computer.

The Ocularis Recorder components: Core Server Main, Device Manager and Ocularis Recorder Manager are now installed on your computer.

9.3.2 Manager Installation

The 'Manager' refers to the software used to configure the Ocularis Recorder (Core). This is called *Ocularis Recorder Manager*. This application is installed when you choose the 'Manager & Server' option from the prior section. However, you may want to also install this application on remote computers, allowing you access to configure the recorder from anywhere on the network.

From the main recorder installation on the Ocularis Component Downloads page:

1. From the 'Ocularis Component Downloads' web page, click the **Download** button next to *Ocularis Recorder*.
2. Choose to *Run* the application to launch the installer.
3. Select the installation language. You can configure the language of the user interface after the installation.
4. Click **OK** to start installation.
5. At the *Welcome* screen, click **Next**.
6. Read the software license agreement, accept the terms and then click **Next**.
7. Change the destination folder if desired. Click **Next**.
8. Select 'Manager' as the Setup Type (see *Figure 22*) and click **Next**.
9. On the next screen, the 'Management Service' and 'IP address/host name for server communication' fields are disabled. Verify the 'Host' field under 'Update service' to be the IP address or hostname where the Update Service (SVR) is located. Modify this field if necessary. Click **Next**.
10. Click **Install** to begin the installation.
11. When asked, accept the EULA (End User License Agreement) for installing the DirectX 9 component. This window may appear behind the primary installation window.

9.3.3 Device Manager Installation

In the Device Manager installation, only the database modules for the video database are installed together with the *Ocularis Recorder Manager* on a different computer from the already installed *Ocularis Recorder Manager* and Core server. The Device Manager reduces the utilization of the core server because the image database is located partially or entirely on another server.

In order to configure the Device Manager server, you need an installed *Ocularis Recorder Manager* and Main Core server.

1. From the 'Ocularis Component Downloads' web page, click the **Download** button next to *Ocularis Recorder*.

2. Choose to *Run* the application to launch the installer.
3. Select the installation language. You can configure the language of the user interface after installation.
4. Click **OK** to start installation. You may be asked to install Microsoft Visual C++.
5. At the *Welcome* screen, click **Next**.
6. Read the software license agreement, accept the terms and then click **Next**.
7. Change the destination folder if desired. Click **Next**.
8. Select 'Device Manager' as the setup type (see *Figure 22*) and click **Next**.

Figure 25 Communication Information

9. In the Management service area, specify the IP address of the Main Core in the Host field. Leave the port number unchanged at '60000'.



It is important to enter the IP address of the Main Core in the Host field of the Management service area in order for the system to function properly. Leave the port as 60000

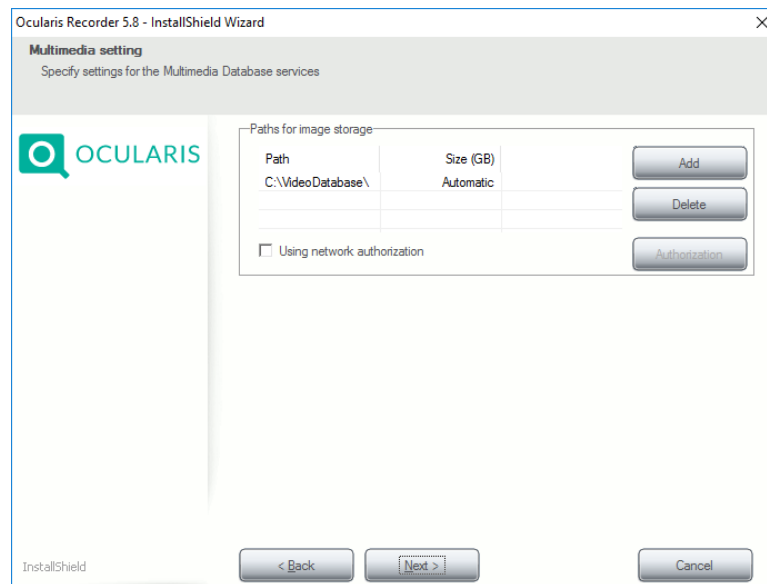
In the *IP address/host name for server communication* section, the IP address of the Device Manager should be placed in the *Host* field. This can be done by selecting it from the *IP address/host names found* in the drop-down list. The list shows you all of the existing network addresses and host names of the PC or server. If there is more than one network adapter on this computer, be sure to select the correct one.

Neither the IP 127.0.0.1 nor the host name 'localhost' may be used in this field.

In the *Update service* section, enter the IP address where the UpdateService SVR (Server module) is installed. This is most likely the IP address of the Main Core Server since this is the default. See *Update Service* on page 46 for more information on the Update Service.

Click **Next**.

Figure 26 Zone Setup



10. If you want, alter the existing path for image storage, or delete or add additional folder paths. Additional locations, or 'zones,' for video storage may be added now or after the software has been installed. If the folder is created on a network drive, enter the complete UNC path.

Example: "\\Server name\Release name\Path..." or "\\IP address\Release name\Path..."

If the network drive is protected with a user name and password, check **Using network authorization** and click **Authorization**.

Enter the user name and password for accessing the network drive, and then click **OK**. Ensure that the specified user is available locally and that the domain is included in the user name field (e.g., "Domain\User name").



A Note About Zones

- A zone should never be as large as the available maximum storage space on the hard disk.
- The hard drive's cluster size should be 64KB.
- You can use a maximum of 10 zones per DM; each zone should be on its own dedicated partition; it is better to have few larger zones than many smaller zones that this impacts performance
- It is recommended to store video data on a separate hard disk or RAID system. Do **NOT** use a hard disk connected via USB or firewire.
- Zones on the network may be identified with a UNC path. You'll also need to provide network username and password.
- Always use a subfolder for a zone and not the root directory.

11. Click **Next**.
12. Click **Install**. The Device Manager is installed on your computer. You may be asked to restart the computer.

9.3.4 Custom Installation

In a 'Custom' installation you can install selected modules. In Ocularis Enterprise and Ultimate, it is also possible to install an additional core server as a Secondary that serves as a redundant server and thus increases the reliability of the Main Core server.

1. From the 'Ocularis Component Downloads' web page, click the **Download** button next to Ocularis Recorder.
2. Choose to *Run* the application to launch the installer.
3. Select the installation language. You can configure the language of the user interface after installation.
4. Click **OK** to start installation.
5. At the *Welcome* screen, click **Next**.
6. Read the software license agreement, accept the terms and then click **Next**.
7. Change the destination folder if desired. Click **Next**.
8. Select 'Custom' as the setup type (see *Figure 22*) and click **Next**.
9. Select the desired services and features. **Core Service Secondary and Core Service Main cannot both be installed simultaneously on the same machine.**

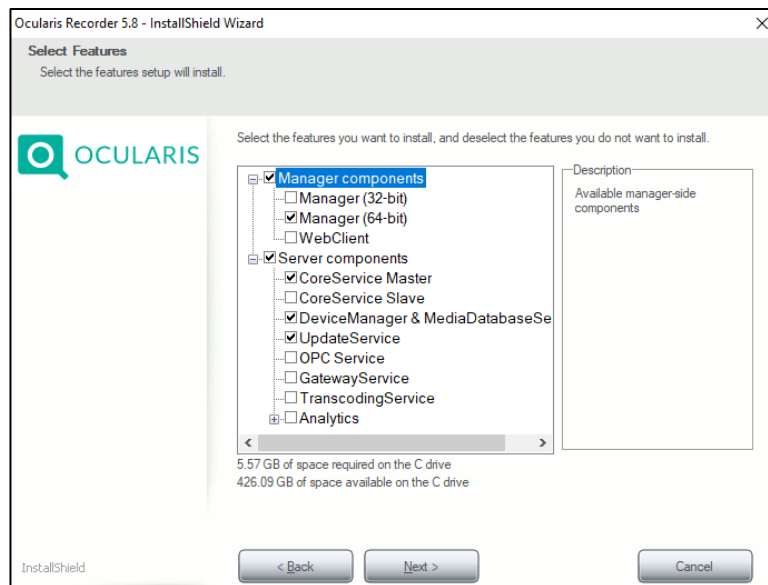


Figure 27 Select Components to Install

You can deselect services and features that are not required.

IMPORTANT: if a previously installed service is deselected, it will be removed.

The 'UpdateService' listed in Figure 27 was introduced in v5.1. The service listed here is for the server component of the UpdateService (Update Service SVR). The default is to

install this server service on the same computer as the Main Core. It is not, however, required to be installed in this location. It may be installed anywhere on the network. With Ocularis Enterprise and Ultimate, this server service should only be installed once. With Ocularis Professional, install it on each Main Core. If you have already installed this service and are using the 'Custom' option to install other components, such as a CoreService Secondary, be sure to uncheck the UpdateService so that it is not installed twice.

For more details on the Update Service, see *Update Service* on page 46.

10. Click **Next**.

The screenshot shows the 'Server services' configuration window in the Ocularis Recorder 5.8 installation wizard. The window title is 'Ocularis Recorder 5.8 - InstallShield Wizard'. The subtitle is 'Server services' and the instruction is 'Specify connection settings for the server services'. The window contains three main sections:

- Management service:** Host: localhost, Port: 60000
- IP address/host name for server communication:** Host: 10.1.30.106, IP addresses/host names found: 10.1.30.106
- Update service:** Host: localhost, Port: 63000

At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted, indicating it is the next step in the wizard.

Figure 28 Communication Information

11. This screen is dynamic based on the components you selected to install.

- If you are installing only a Main Core Server:
 - *Management service/Host and Port:* these fields are disabled but should contain 'localhost' and '60000'
 - *IP address/host name for server communication-Host:* this field should contain the IP Address of the Main Core Server
 - The *Update service-Host* field should contain 'localhost' and '63000' in the *Port* field.
- If you are installing only a Main Secondary Server:
 - *Management service/Host and Port:* Enter the IP Address of the Main Core in the Host field and '60000' in the Port field
 - *IP address/host name for server communication-Host:* these fields are disabled
 - The *Update service-Host* field should contain the IP address of the UpdateService SVR component which is most likely on the Main Core Server and '63000' in the *Port* field.
- If you are installing only a Device Manager:
 - *Management service/Host and Port:* Enter the IP Address of the Main Core in the Host field and '60000' in the Port field
 - *IP address/host name for server communication-Host:* this field should contain the IP address of the Device Manager
 - The *Update service-Host* field should contain the IP address of the UpdateService SVR component which is most likely on the Main Core Server and '63000' in the *Port* field.
- If you are installing a Main Core Server and a Device Manager:

- *Management service/Host and Port*: these fields are disabled but should be 'localhost' and '60000'
- *IP address/host name for server communication-Host*: this field should contain the IP Address of the Device Manager
- The *Update service-Host* field should contain the IP address of the UpdateService SVR component which is most likely on the Main Core Server (so 'localhost' is acceptable) and '63000' in the *Port* field.
- If you are installing a Secondary Core Server and a Device Manager:
 - *Management service/Host and Port*: Enter the IP Address of the Main Core in the Host field and '60000' in the Port field
 - *IP address/host name for server communication-Host*: this field should contain the IP address of the Device Manager
 - The *Update service-Host* field should contain the IP address of the UpdateService SVR component which is most likely on the Main Core Server and '63000' in the *Port* field

The Host field in the IP address/host name for server communication area should be populated by selecting it from the drop-down menu or you may enter it manually. The drop-down list shows you all of the existing network addresses of the PC or server. If there is more than one network adapter on this computer, be sure to select the correct one

12. When ready, click **Install**.

13. If asked, accept the EULA (end user license agreement) for installing the Microsoft DirectX 9 component. This window may be behind the primary installation window.

The modules and services are now installed on your computer. You may be asked to restart the computer.

A desktop icon appears for the Ocularis Recorder Manager. All relevant components appear in the Windows Start menu under Qognify→Ocularis Recorder.

9.4 First Time Login to the Recorder

You will need to log in to the recorder in order to apply the license and add cameras.

1. The first time you login to the recorder, launch the *Ocularis Recorder Manager*.



2. For **Server**, use the credentials (IP address or hostname) for the Main Core Server.
3. Ignore the Viewer Mode checkbox.

4. For **Authentication**: select:
 - a. Basic Authentication
 - b. Windows authentication (current user)
 - c. Windows authentication (specify user)
5. Use the username: admin
6. Use the password: admin
7. Click the triangle.
8. Upon first successful login, you will be required to change the password for the 'admin' user.

Figure 29 Change password for 'admin'

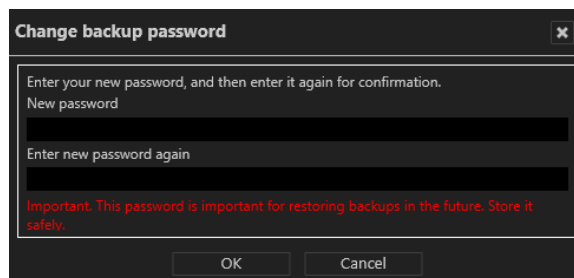


9. If you choose to create a more secure password, leave 'Enforce secure password' checked. This will require the password contain at least eight characters, at least one number, one upper-case letter and one lower-case letter. Otherwise, uncheck 'Enforce secure password'.
10. Enter the password in again.
11. A second password is not used with Oculars, so bypass this step.
12. Click **OK**.

IMPORTANT: If you forget the admin password and no additional users have been created in the administrator group, it will no longer be possible to access the system configuration settings. DO NOT FORGET THE ADMIN PASSWORD.

13. Next, you are presented with a change password pop-up:

Figure 30 Change Backup Password



Database backups are encrypted and require a password. When logging in for the first time, you are required to modify the default database backup password.

14. Enter a **New password**.
15. Enter the **new password again**.
16. Click **OK**.

For configuration instructions, refer to the *Ocularis Recorder Configuration Manual* found on our website.

10 Update Service

Ocularis includes a service called 'Update Service.' The Update Service is a service that will automatically check online for patches and software application upgrades to the recording system components and for integration updates for all Ocularis components and download the update if it is available. Updates are typically made available once per month. By default, the system will check for the patch update nightly at 3:00 a.m. and if found, will download and install the update patch. Software upgrades may also be downloaded and installed automatically. This, however, is not enabled by default. The default settings may be modified.

There are two components to the Update Service: the Update Service SVR (Server module) and Update Service Agents (Client module). By default, the SVR service will be installed on the Main Core (unless unchecked using the 'Custom' install option). You may also install this service on a separate server, however there should be only one instance of the server module in an ENT or ULT system. For PRO, the Update Service SVR service should be installed on each Main Core Server (and it will be installed by default). Components installed on remote/satellite PCs will have an Update Service Agent installed by default. This allows the Update Service SVR to communicate and push any updates out to Agents on the remote machines.

Therefore, if you decide to use the default and include the Update Service SVR (Server) on the Main Core server, use either the 'Manager & Server' installation option or 'Custom' installation option. With the 'Custom' installation option, be sure that 'UpdateService' is among the checkboxes selected.

If you choose to install the Update Service SVR (Server) on a server other than the Main Core, be sure to use the 'Custom' option and that 'UpdateService' is among the checkboxes selected when installing the Update Service.

Once the UpdateService SVR option is installed, if you decide to use the 'Custom' installation option to install other components, the 'UpdateService' should be unchecked (since it is already installed).

The UpdateService uses port 63000 and 63001. It is advised to keep these default values. If you need to change these port numbers, please contact Technical Support prior to doing so. For more information on the Update Service, refer to Update Service on page 67.

11 Ocularis Recorder Licensing

Unlike many other recorders, the Ocularis Recorder does not license specific cameras. There is no need to identify device MAC addresses. Rather, the number of channels (or streams) is licensed on the recorder's Main Core. The license process for the Ocularis Recorders has been streamlined and simplified. With these recorders, simply activate your recorder SLC from within the software. Licensing is available using an online or offline method.

11.1 Supported Recorders

The recorders supported using the license methods described here are: Ocularis Professional Recorder, Ocularis Enterprise Recorder, Ocularis Ultimate Recorder and Ocularis NVR Recorder.

For the supported recorders, the software provides a free 30-day trial. You may add cameras, configure the system, and add the recorder to Ocularis Base all during this period. You must, however, be sure to license the recorder within the 30 day period, otherwise, the recorder will cease to function. The seven digit v5 recorder SLCs contain the prefix '50'.

The process to license a demo version is slightly different than licensing a retail version.

11.2 Licensing Online

Licensing should be done prior to the end of the 30-day trial period. Licensing may be done online or offline.

11.2.1 Licensing a Retail Version Online

Use these steps when you need to license a production system:

From the *Ocularis Recorder Manager* application:

1. From the *Info* menu, select **Activate product >> Online**.
2. Click **OK** to the message reminding you that this feature requires a connection to the internet.
3. Verify that the *Personalize License* radio button is selected. (this is the default selection).
4. Enter your recorder SLC. This SLC should start have seven digits starting with '500'
5. Fill out the remainder of the form.
6. Click **OK** to confirm your entries.

The application connects to the Ocularis registration server and obtains the license.

You are done!

To view your licensing information, from the *Info* menu, select **Show Information >> Show license**.

11.2.2 Licensing a Demo Version Online

Use these steps to license a demo system.

1. You will receive a demo license file from Qognify.
2. In the *Ocularis Recorder Manager* application, choose the *Info* menu and select **Activate product >> Offline**.
3. Click the tab **Import license file**.
4. Click **Select** to navigate to the license file from step 1. Select the file and then click **Open**.
5. Click **Import** to use the license key.

You are done!

To view your licensing information or expiration date, from the *Info* menu, select **Show license**.

11.3 Licensing Offline

Offline licensing must be done via webpage on the Qognify website (<https://www.qognify.com/support-training/licensing/>)

1. Open the *Ocularis Recorder Manager*. In the *Info* menu, select **Activate Product >> Offline**.
2. Click **Copy** to copy the Product ID to the Windows clipboard from the Product ID tab.
3. Paste the contents of the clipboard to a Notepad or other text file. Save the file to portable media and bring it to a computer that does have internet connectivity.
4. From a browser, go to the URL: <https://www.qognify.com/support-training/licensing/>
5. In the section: 'Initial installation: New license code', enter your SLC (i.e. the 7 digit SLC with the prefix '50') and fill out the remainder of the form. In the Product-ID field, paste the contents of the text file that you created from the *Ocularis Recorder Manager* in step 3.
6. When done, click **Submit**.
7. The SLC is verified with the Ocularis licensing server. A license key is emailed to the Installer email account specified on the form. There may be a delay of up to 10 minutes to receive the email from the licensing server.
8. Detach the license key file from the email attachment and bring the file to the offline computer running the *Ocularis Recorder Manager*.
9. In the *Ocularis Recorder Manager* application, choose the *Info* menu, select **Activate Product >> Offline** (if not already open).
10. Select the tab **Import license file**.
11. Click **Select** to navigate to the license file from step 5. Select the file and then click **Open**.
12. Click **Import** to use the license key.

You are done!

To view your licensing information or expiration date, from the *Info* menu, select **Show Information >> Show license**.

11.4 Changes to Server Hardware

If you need to use new hardware with an existing Ocularis Main Core or you need to move it to another computer, you need to update the license. This procedure is currently only available by using a form on the website.

1. On the new hardware, install the software and restore the backup. (See the document *Ocularis Recorder Database Management Guide* on how to restore a backup). This is not necessary if there were only changes to the hardware.
2. On the new or updated system, open the *Ocularis Recorder Manager*. In the *Info* menu, select **Activate Product >> Offline**.
3. Click **Copy** to copy the Product ID to the Windows clipboard.
4. If the computer you are on has internet connectivity, skip to step 6.
5. If the computer you are on does not have internet connectivity, paste the contents of the clipboard to a Notepad or other text file. Save the file to portable media and bring it to a computer that does have internet connectivity.
6. Open a browser and go to the URL: <https://www.qognify.com/support-training/licensing/>
7. In the section 'Modified server hardware: New product ID', fill out the form providing your SLC and personal credentials. Copy and paste the Product ID from the text file to the last field on the form. Click **Submit**.
8. You will receive a new license key via the Installer email you provided on the form. Extract the attachment.
9. On the new system's *Ocularis Recorder Manager*, choose the *Info* menu and select **Activate Product >> Offline**.
10. Select the tab **Import license file**.
11. Click **Select** to navigate to the license file from the email. Select the file and then click **Open**.
12. Click **Import** to use the updated license key.

You are done!

11.5 Updating A License

If you have updated an existing installation, expanded your system or lost your license code, you can request a new license code from our website.

1. Open a browser and go to the URL: <https://www.qognify.com/support-training/licensing/> Scroll to the section 'License update: Re-licensing'. Enter your recorder SLC. This 7 digit SLC should start with the prefix '50'. Click **Submit**.
2. You will receive a new license key via the email account you provided when you first personalized the original license. Extract the license key attachment.

3. In the *Ocularis Recorder Manager*, choose the *Info* menu and select **Activate Product >> Offline**.
4. Click the **Import license file** tab.
5. Click **Select** to navigate to the license file from the email. Select the file and then click **Open**.
6. Click **Import** to use the updated license key.

You are done!

12 Ocularis Recorder Manager

The *Ocularis Recorder Manager* is the client application used to configure the v5 Ocularis Recorder. This software application may be installed on any computer with network connectivity to the recorder. It is included with the download and installation of the Ocularis Recorder download link.

Note: if you attempt to install this application on a computer on which it is already installed, you will see an error message that states:

'Another version of this product is already installed. Installation of this version cannot continue. To configure or remove the existing version of this product, use Add/Remove Programs on the Control Panel'.

Click **OK** to clear the message.

To install Ocularis Recorder Manager on any computer, refer to the instructions found in Manager Installation on page 38.

13 Ocularis Recorder Proxy

Ocularis Recorder Proxy was formerly called 'Ocularis Event Proxy.' The product name changed in version 5.5 to reflect a more accurate description of its functionality. Ocularis Proxies are used to route events and other information from a server or recording component to the Ocularis Base or other 3rd party system. Ocularis models all make use of a recorder proxy. The installation of a recorder proxy is required for Ocularis Media Server as well as for supporting multiple live streams.

The Ocularis Recorder Proxy software must be installed on a PC with connectivity to the Main core. While not required, in cases where there are no Secondary cores, it is highly recommended to install the recorder proxy software on the same computer as the Main core. In cases where there is a Secondary core installed at the 'Company' or root level, install the Recorder Proxy on the same computer as this Secondary core.

Note:

A new field has been added: 'Recorder Server User Name.' Be sure to add a valid administrator account and corresponding password here. Recorder Server Port has also been added.

13.1 To Install the Ocularis Recorder Proxy

These instructions assume that you have installed Ocularis Base and are located at the system on which you wish to install *Ocularis Recorder Proxy*. Use these steps for all models of Ocularis.

Note: *While the product name was renamed, the executable file, installation wizard, installation folder, and Windows service will still be labeled as 'Ocularis Event Proxy'.*

1. From the 'Ocularis Component Downloads' web page, click **Download** next to Ocularis Recorder Proxy.

You may be prompted to run or save the file. Choose to run it now. In a new installation, you'll see the *Welcome to Ocularis Event Proxy Setup Wizard* screen.

If a previous version of the *Ocularis Recorder Event Proxy* is detected, a notice will appear asking for your confirmation to uninstall the older version and install the new version. Click **Yes**.

- a. An "Are you sure you want to remove Ocularis Proxy...?" screen appears. Click **Yes**.
- b. When the uninstall is complete, click **OK**.

The *Welcome to Ocularis Event Proxy Setup Wizard* appears. Click **Next**.

The *Select Destination Folder* screen appears. You may leave the default directory path as is or change it if necessary according to your organization. If installing a version to be used as a demo, keeping the default path is recommended. Click **Next**.

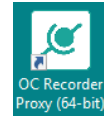
The next screen, *Ready to Install the Program*, will confirm the file path and disk space requirements. Click **Next** if OK. Click **Back** to make changes to the directory path or the folder.

Enter the IP Address of the Update Server.

The *Ocularis Recorder Proxy* software is installed.

When the *Ocularis Recorder Proxy* Setup is completed, the *Setup Wizard Complete for Ocularis Recorder Event Proxy* screen appears. Click **Finish**.

The software installation will result in the display of the following desktop icon:



For configuration instructions, refer to the *Ocularis Recorder Proxy Configuration Guide* found on the Qognify website or from the application itself.

14 Ocularis Media Server

Ocularis Media Server brings the experience of desktop video surveillance to browsers and mobile video clients. It can deliver video over limited bandwidth networks such as 3G, 4G and broadband.

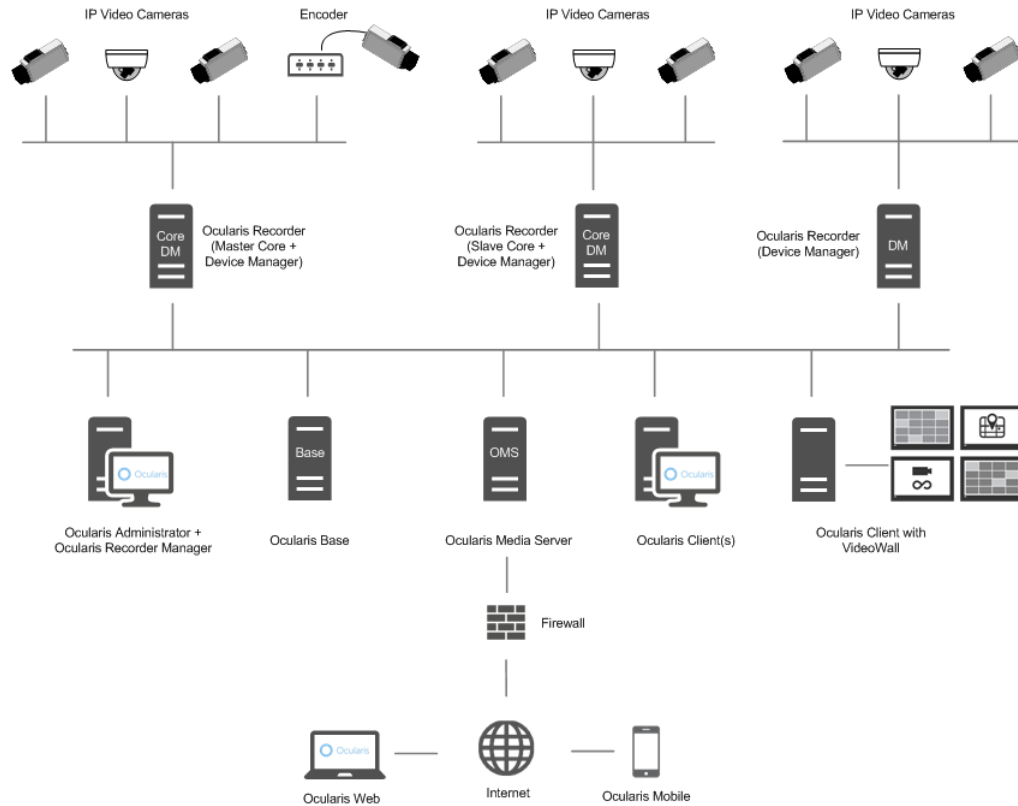
Ocularis Media Server allows security personnel in the field to perform live monitoring and playback of megapixel cameras through a standard web browser or mobile device. Alerts can be configured for the operator to be notified when an incident occurs and the operator can handle the alert in the field, providing quicker response times when needed.

Qognify Mobile Client also allows field operators to stream video from their mobile device to Ocularis. This allows others to view live and recorded video from personnel as it happens. Video is stored on the corresponding Ocularis Recorder.

14.1 Ocularis Media Server Components

Components of Ocularis Media Server include a server component and client components. The Ocularis Media Server typically resides on a standalone server or PC and functions as the gateway for local and remote web and mobile users. Qognify Web Client is a browser based video client and Qognify Mobile Client is a mobile app based video client.

Figure 31 Sample Environment



When an Ocularis user logs in with Qognify Web Client, they are directly connected to the Ocularis Media Server. The Ocularis Media Server relays the credentials to the Ocularis Base. The Ocularis Base then authenticates the user and initiates a permissioned video stream between the

appropriate recorder and the Ocularis Media Server. At that point, the video stream is point to point between the Ocularis Media Server and the recorder. The Ocularis Media Server provides the appropriate video stream to the client to best utilize the bandwidth and resources available to the individual clients (including 3G/4G networks).

14.2 Specifications

Ocularis Media Server runs as a service on a host / server computer. For complete hardware specifications see <https://www.qognify.com/support-training/hardware-recommendations/> or contact Technical Support.

The following TCP ports must be open and, if necessary, forwarded to the Ocularis Media Server:

Port	Description
80	Used by IIS to host the Ocularis Media Server HTTP website*
1935	Used when sending M2O video from the Mobile App to Ocularis Media Server.
5544	Used for streaming RTSP video from mobile devices; this port only needs to be open between OMS and the DMs (it does not need to be open to the internet).
8090	Used for playing back video in Ocularis Mobile.
8420	Used for live video.
9090	Used for playing back video in Ocularis Web.

*All communication using HTTP is unencrypted and therefore unsecure.

Additional ports required for Ocularis Base may be found in *Appendix A* at the end of this document.

14.2.1 Qognify Web

Qognify Web Client uses a web browser to display live and recorded video. The following web browsers are supported:

- Mozilla Firefox version 14.0 and higher
- Google Chrome version 21.0 and higher
- Apple Safari version 5.1.7 and higher

With Ocularis 5.7, WebRTC has been implemented for communication and security reasons. The first time users connect to Ocularis Media Server using a browser, they will need to import one or two certificates.

If you have your own private SSL certificate, following the instructions below in *Use Qognify Web Client with a Private Certificate* on page 61.

If you do not have your own private SSL certificate, refer to the document *Ocularis Web – WebRTC Configuration* for detailed instructions. Instructions are specific to each supported browser.

In addition to this, port 1935 is no longer used for live video. Port 8420 is now used for this purpose. Port 1935 is still reserved for sending M2O video from the Mobile App to Ocularis Media Server. Recorded video continues to use port 9090.

In the current version, only cameras with H.264 streams are supported with Qognify Web when viewing Live video.

14.2.2 Qognify Mobile Client

Qognify Mobile Client is currently available on the following devices:

- Apple® iPad® (iPad 2, iPad (3rd generation), iPad (4th generation), and iPad mini)
- Apple® iPhone®
- Android™ devices

For Apple devices, download the app from the App Store. Requires iOS 9 or later.

For Android devices, download the app from the Google Play store. Requires Android 6.0 or later.

In the current version, the following compressions are supported with Qognify Mobile Client: MJPEG, MxPEG, MPEG4, H.264 and H.265.

14.2.3 Dependencies

An installation of Ocularis Base is currently required for Ocularis Media Server. Ocularis Media Server users are created and maintained in Ocularis Base. User accounts can be Basic or Active Directory users. These are the very same user accounts that are used with Ocularis. Privileges for Ocularis Media Server are also controlled within Ocularis Base.

An installation of the Ocularis Recorder Proxy is required for Ocularis Media Server. This component can be installed on any PC with connectivity to Ocularis Base but is typically installed on the same machine as the recording component's Main core. Download and install the Ocularis Recorder Proxy from the Ocularis Component Download webpage located on the Base. Instructions for installation and configuration of the Ocularis Recorder Proxy may be found on page 52.

If you are running v4.x recorders, you need to install a corresponding v5.5 64-bit event proxy to see video from these legacy recorders. Download and install the RC-C/RC-I Event Proxy or RC-E/RC-L Event Proxy from the Qognify website.

14.2.4 Restrictions

The following apply to the current version of OMS on the date of this document's publication:

- Only H.264 streams are supported in live mode for Qognify Web Client.

14.2.5 Multiple Streams

For cameras with more than one configured stream, Ocularis Media Server will determine which stream to deliver to the web & mobile client based on the display pane size. You may select an alternate stream using the mobile app.

14.3 To Install Ocularis Media Server (OMS)

These instructions assume that you have installed Ocularis Base and are located at the system on which you wish to install *Ocularis Media Server*. Use these steps for all models of Ocularis. Ocularis Media Server may be installed on a dedicated server or alongside other Ocularis components. Check the hardware recommendations on the Qognify website at: <https://www.qognify.com/support-training/hardware-recommendations/>.

1. From the 'Ocularis Component Downloads' web page, click the **Link to Qognify** button next to Ocularis Media Server. This will redirect the browser to the software downloads page on the Qognify website. If the computer does not have internet connectivity, on another computer with connectivity, go to the software downloads page on the Qognify website or use this link: <https://www.qognify.com/support-training/software-downloads/>

Locate the section **Ocularis Media Server** and click the download link next to the most current version.

You may be prompted to run or save the file. You may choose to either run it now or save it and run the installation later. In a new installation, you'll see the *Welcome to Ocularis Media Server Setup Wizard* screen. If you need to, bring the downloaded file back to the offline Ocularis Media Server computer.

If a prior version is detected, the installation will prompt you to uninstall the older version prior to installing the new version. Click **Yes** as the older version must be uninstalled. Follow the Wizard to uninstall the software.

If your system does not meet the minimum requirements for installed RAM, you will see a warning message. Click **Yes** to proceed with the installation.

During installation, the existence of the Xvid video codec will be checked. This codec is required on the Ocularis Media Server if you wish to export video to .avi format using *Qognify Web* or *Ocularis Mobile*. If you see a warning message to this effect, click **OK** and be sure to install the free Xvid codec after the OMS installation is complete.

A *Welcome to the Ocularis Media Server Installer* screen appears. Click **Next**.

A **License Agreement** screen appears. *Read* the agreement, click the "I agree to the terms..." radio button and click **Next**.

An **Installation Folder** screen appears. The default location for the Ocularis Media Server installation files is:

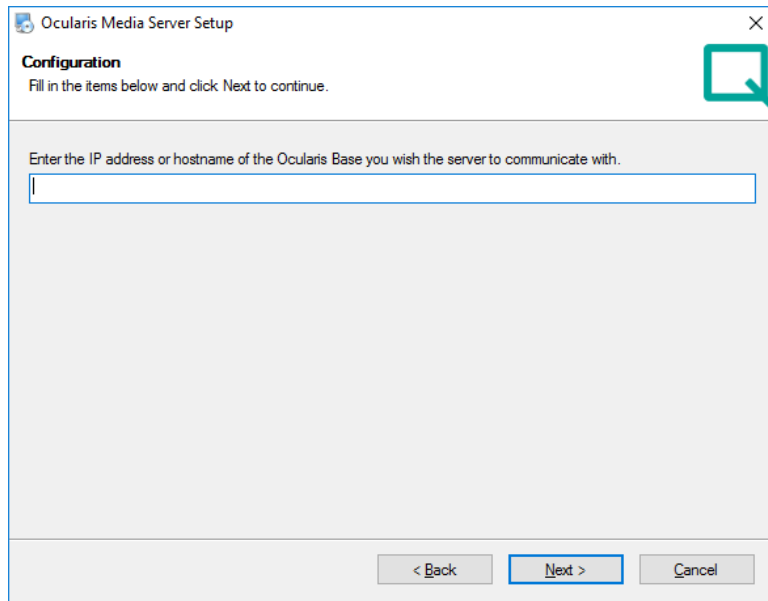
```
C:\Program Files\Qognify\Ocularis Media Server
```

Click **Change** if you would like to modify the location for these files and select a new destination. The space requirements for the application are also displayed.

When ready, click **Next**.

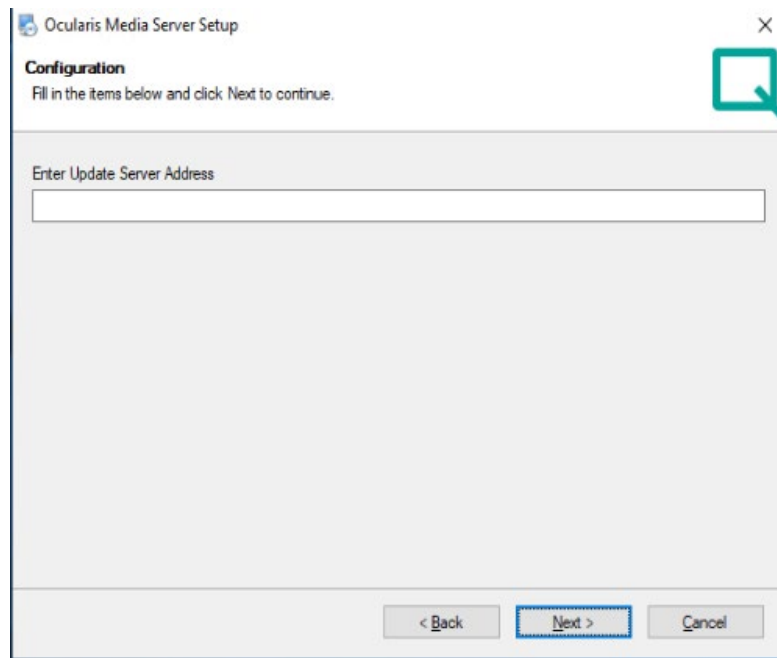
A *Configuration* screen appears.

Figure 32 Configuration



- a. Enter the IP address or hostname of the Ocularis Base to be used with the Ocularis Media Server. Use the external or 'outside' IP address of the Ocularis Media Server if video will be accessed from outside the internal network.
- b. Click **Next**.

Figure 34 Configuration Update Server



- c. Enter the IP Address of the Update Server.
- d. Click **Next**

On the *Ready to Install* screen, prior entries are displayed for confirmation. If all settings are correct, click **Next**.

Ocularis Media Server components are installed including Windows IIS. This may take several minutes.

When the installation is complete, you will receive an **Installation Successful** screen. Click **Finish**.

You may be asked to reboot the computer.

If you have not yet installed the Ocularis Recorder Proxy, install it now. It is required for Ocularis Media Server. (see *To Install the Ocularis Recorder Proxy* on page 52).

Access to *Ocularis Media Server* video is done with a web browser or mobile device.

14.4 Configuring OMS for Cisco Duo Authentication

For customers using Cisco Duo, it is now possible to integrate OMS and Cisco Duo to facilitate secure multi-factor authentication with Cisco Duo.

Note: Only Cisco Duo SDK version is supported. Newer versions are not supported.

Here are the steps to configure Cisco Duo in OMS:

1. On the OMS machine go to: C:\Program Files\Qognify\Ocularis Media Server\OcularisMediaServer and open the settings.ini file
2. Add in the following lines at the bottom (contact your systems administrator for the correct values)
 - DuoIKey=
 - DuoSKey=
 - DuoAKey=
 - DuoHost=

```
exportAVIMaxStorage=10000
ExportAVIMaxAge=336
ExportAVIMaxDuration=10
HDDSpaceThresholdPercent=10
HDDSpaceThresholdGB=10
LogLevel=6
IgnoreMultistream=false
EnableWebRTC=true
DuoIKey=
DuoSKey=
DuoAKey=
DuoHost=
```

-

Save the settings.ini file and re-start the Ocularis Media Server service.

14.5 Troubleshooting OMS Video

In some cases, the following Windows services should be restarted for Ocularis Web and/or Ocularis Mobile.

- **Ocularis Stream Server** Service located on the Ocularis Media Server
- **EvoStream Media Server** Service located on the Ocularis Media Server
- **Ocularis Recorder Proxy** located most likely on the Main Core computer

15 Qognify Web Client

Access *the Qognify Web Client* with a browser by using the following URL:

```
https://<IP_ADDRESS_OF_OMS>
```

where **IP_ADDRESS_OF_OMS** is the IP address or hostname of the Ocularis Media Server

The first time you log in using the Qognify Web Client you need to import one or two certificates in order to take advantage of WebRTC. Web Real-Time Communication replaces Adobe Flash and provides web browsers with real-time communication via a simple application programming interface.

15.1.1.1 Use Qognify Web Client with a Private Certificate

The two certificates you will need from the IT department are:

- Private Key
- Intermediate CA Certificate Chain

On the Ocularis Media Server computer:

1. Create a folder for the Intermittent (Private) SSL and for the Public SSL.

For example:

```
C:\Program Files\Qognify\Ocularis Media Server\OcularisMediaServer\certs
```

2. Navigate to: C:\Program Files\Qognify\Ocularis Media Server\OcularisMediaServer
 - a. Open the **settings.ini** file
 - b. Modify the path to point to the personalized SSL paths:
 - i. SSLKey should be set to the path to the private key
 - ii. SSLCert should be set to the path to the public certificate
 - iii. Remove the SSLCa line
3. Navigate to: C:\Program Files\Qognify\Ocularis Media Server\EvoStreamMS_OnSSI\config
 - a. Open the file **webconfig.json***
 - b. Modify the path to point to the personalized SSL paths:
 - i. All instances of sslKeyFile should be set to the path to the private key
 - ii. All instances of sslCertFile should be set to the path to the public certificate
 - c. Open the file **config.lua***
 - i. All instances of sslKeyFile should be set to the path to the private key
 - ii. All instances of sslCertFile should be set to the path to the public certificate

4. Navigate to: C:\Program Files\Qognify\Ocularis Media Server\EvoStreamMS_OnSSI\ers\config
 - a. Open the file **default.json***
 - b. Modify the path to point to the personalized SSL paths:
 - i. key should be set to the path to the private key
 - ii. cert should be set to the path to the public certificate
5. Navigate to: C:\Program Files\Qognify\Ocularis Media Server\EvoStreamMS_OnSSI\config
 - a. Open the file **webconfig.lua**
 - b. Modify the path to point to the personalized SSL paths:
 - i. key should be set to the path to the private key
 - ii. cert should be set to the path to the public certificate
6. Once everything has been modified, open the local Windows Services
 - a. Restart the EvoStream Media Service
 - b. Restart the Ocularis Stream Service

*When modifying these paths, you must use a double backslash “\\” within the path in the config files.

For example:

c:\\Certs\\Intermediate\\Intermediate.pem

c:\\Certs\\Private\\private.pem

15.1.1.2 Use Qognify Web Client without a Private Certificate

The procedure to import certificates is slightly different on each supported browser. Refer to the document *Ocularis Web – WebRTC Configuration* for detailed configuration instructions.

15.1.2 Logging In

Use your normal Ocularis username and password to gain access to video when using either *Qognify Web Client* or *Ocularis Mobile*.

16 Dewarping Plug-In Installation

Cameras using 360° or *panomorph* lenses have a 360°x 180° field of view. When video from these cameras is displayed on a two dimensional computer screen, the original image appears as a dome or ellipse and is not very usable. Ocularis can *dewarp* or flatten video from these lenses and display them in ways that make them quite useful. One lens strategically positioned in the center of a room can cover the same area where multiple cameras were once required. Operators can operate the field of view from a 360° lens similar to that of a PTZ camera. Meanwhile behind the scenes, Ocularis records the full 360° image so that investigations can access the entire image regardless of the field of view that a particular operator happens to be displaying.

Each lens manufacturer approaches their panomorph algorithm differently and therefore, each requires a unique *plug-in* (additional software component) in order to properly display video.

With the introduction of Ocularis v5.6, all plug-ins are available on the Qognify website as a download. They are no longer bundled with the primary software.

Dewarping plug-ins must be installed on the Ocularis Base server. If your Base does not have internet connectivity, download the software from a different computer and bring the installation file to the Base server.

1. You can access the downloads page from either:
 - a. The 'Ocularis Component Downloads' page (see Figure 18). Click the button 'Link to Qognify Website' adjacent to **Ocularis Client Dewarping Plug-ins**
 - b. Open a browser and go to <https://www.qognify.com/support-training/software-downloads/> and scroll the page until you see *Ocularis Client Dewarping Plugins*.
2. Click the plug-in you wish to install. It will be downloaded locally using the browser's normal file download steps.
3. If you are not already located on the Ocularis Base server, bring the downloaded file to that server.
4. Click the .exe file to launch the installation wizard.
5. Follow the on-screen prompts and click **Finish** when done.

The plug-in should now be visible in the 'Camera Properties' dialog in *Ocularis Administrator*.

When an *Ocularis Client* user logs into the Base, the necessary .dlls are downloaded from the Base to the client machine. At this time viewing dewarped images is supported only on *Ocularis Client* (not with *Ocularis Viewer*, *Ocularis Web* or *Ocularis Mobile*).

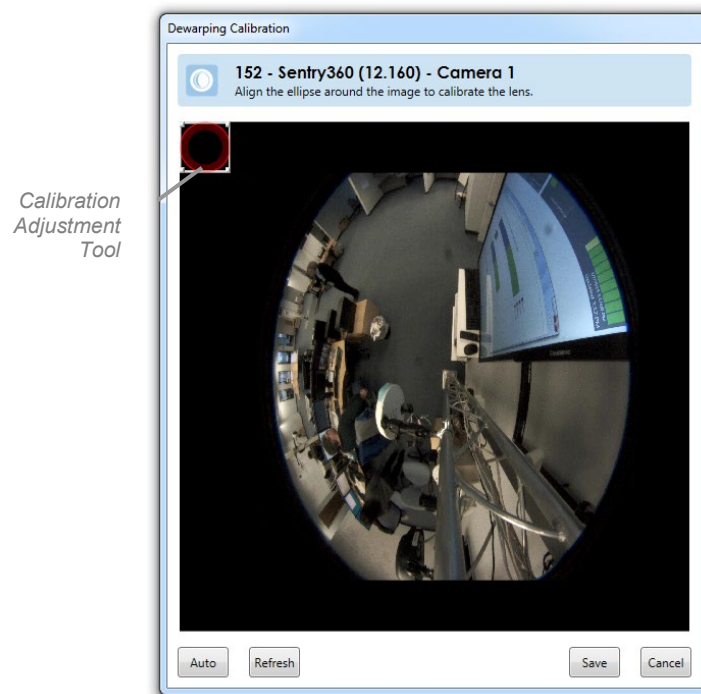
As plug-ins for other manufacturers are created they will be available for download on the Qognify website.

16.1 Plug-In Configuration

In order to take advantage of 360° lenses, the camera with the lens needs to be configured using *Ocularis Administrator*. The lens' corresponding driver needs to be selected along with the camera's orientation and layout. Be sure to check the Supported Devices page on the Qognify website (<https://www.qognify.com/support-training/supported-devices/>) to verify the required plug-in for your camera.

1. On the *Ocularis Administrator* **Servers / Events** tab, right-click the camera with the 360° lens and select 'Properties'.
2. In the *Dewarping Type* drop-down list, select the plug-in for the corresponding camera or lens. If you don't see the plug-in for the manufacturer of your camera, install it on the Base Server. (See steps above.)
3. Select the positioning of the camera mount under *Orientation*. Choices are: Ceiling, Wall, Floor
4. Select the default layout for the image under *Layout*. Choices will vary based on manufacturer. Examples include: Single, Quad, Panorama Narrow, Panorama Wide or VCam. This is what will be displayed in *Ocularis Client* when the camera initially appears or when a view is reloaded.
5. For some cameras, calibration must be performed. Click the **Calibrate** button. This button will only be enabled for those manufacturers who require calibration.
 - a. A spherical snapshot should appear showing the native fisheye view from the camera. A calibration adjustment tool in the form of a red circle appears in the upper left corner.

Figure 33 Calibrate a Sentry360 Camera



The goal is to use the Calibration Adjustment tool to outline the area of view. This may be done manually or automatically.

Note: *The image that appears may not be the most recent. Click the Refresh button to take a current snapshot of the camera's image.*

- b. For manual adjustment, use the mouse to drag the calibration adjustment tool across the screen. Use the mouse to stretch the edge of the calibration adjustment tool so that the outline matches that of the image.

- c. For automatic adjustment, simply click the **Auto** button on the bottom left portion of the pop-up. You may further provide manual adjustments if you do not like the automatic selection.

Figure 34 Sentry360



- d. When finished, click **Save**.
- 6. If you are finished configuring Camera Properties, click **OK**.

The user will now be able to take advantage of the expanded field of view when viewing via *Ocularis Client*.

17 Ports

Please note the following ports should be open for data traffic on the network when using Ocularis.

Table 2 Port List for Ocularis

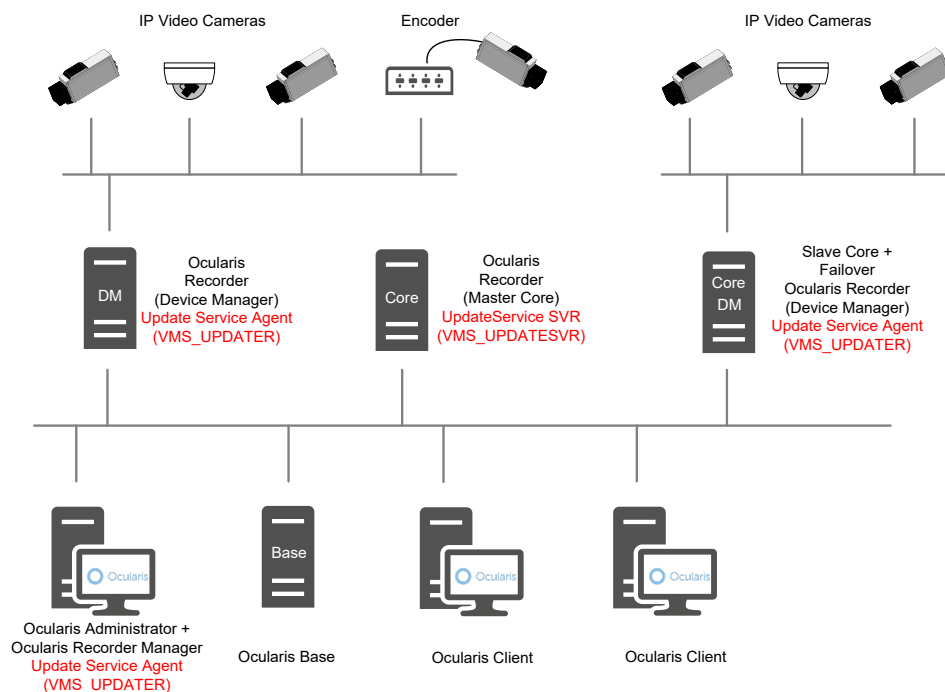
Port Number (inbound and outbound)	Description
25	Used when recording servers listen for SMTP information. Also, some devices use SMTP (e-mail) for sending event messages and /or for sending images to the surveillance system server via e-mail. SMTP (Simple Mail Transfer Protocol) is a standard for sending e-mail messages between servers.
80	Port 80 is typically used by the IIS (Internet Information Services) for Ocularis and Ocularis Media Server's HTTP website.
443	Used for secure connections to Ocularis using HTTPS
554	Used by some camera manufacturers.
1801	Used for Message Queuing between Ocularis Recorder Proxy and Ocularis Base
1935	Used when sending M2O video from the Mobile App to Ocularis Media Server.
3000	Port used for hosting Qognify Web Client on Ocularis Media Server
7008	Used by Ocularis.net (send messages to and from Ocularis Client)
7072	Used for SSO Authentication from BriefCam to Ocularis Base
7073	Used to send events from BriefCam to Ocularis Base
8090	Used for playing back video in Ocularis Mobile.
8420	Used for live video for Qognify Web Client
9090	Used for playing back video in Ocularis Web.
9100	RTSP Port
60000-60008 (inbound & outbound)	Recorder Core/DM/MDS
63000-63001	Update Service
Any other port numbers you may have selected to use	Examples: If you have changed the IIS Default Web Site port from its default port number (80) to another port number.

18 Update Service

The Update Service is a service that will automatically check online for patches and software application upgrades to the recording system components and for integration updates for all Ocularis components and download the update if it is available. Ocularis expands this service to include not only the automatic distribution of patches but also recorder software application updates. A valid SMA plan is needed for all patches and software updates.

Recorder patches are typically made available once per month but may be scheduled more often. By default, the system will check for the update nightly at 3:00 a.m. and if found, will download and install software for the recorder components. These settings may be modified. Software upgrades are released less often, typically twice per year.

Figure 35 Sample system layout



There are two components to the Update Service: the Update Service SVR (Server module) and Update Service Agent (Client module). By default, the Update Service SVR service will be installed on the Main Core (unless unchecked using the 'Custom' installation option). You may also install this service on a separate server, however there should be only one instance of the Update Service SVR module in an ENT or ULT system. For PRO, the Update Service SVR service should be installed on each Main Core Server (it will be installed by default).

Components installed on remote/satellite PCs will have an Update Service Agent installed by default. This allows the Update Service SVR (VMS_UPDATESVR) to communicate and push any updates out to Agents (VMS_UPDATER) on the remote machines.

Therefore, if you decide to use the default and include the Update Service SVR (Server) on the Main Core server, use either the 'Manager & Server' installation option or 'Custom' option during software installation or upgrade. With the 'Custom' installation option, be sure that 'UpdateService' is among the checkboxes selected during installation.

If you choose to install the Update Service SVR (Server) on a server other than the Main Core, be sure to use the 'Custom' option and that 'UpdateService' is among the checkboxes selected when installing the Update Service.

Once the Update Service SVR option is installed, if you decide to use the 'Custom' installation option to install other components, the 'UpdateService' should be unchecked (since it is already installed on the Main Core computer).

The Update Service uses ports 63000 and 63001. It is advised to keep these default values. If you need to change these port numbers, please contact Technical Support before doing so.

18.1 Update Service Configuration Tool

This tool manages the configuration of the Update Service on the Main Core Server (or wherever the server service is installed) as well as the Update Agents installed on the other recorder components. The configuration tool is installed automatically with the Update Service server component. This configuration tool can:

- Display all connected Update Agents (Clients), their hardware specifications, installed features, and applied patches of each Update Agent
- Display status information of all Update Agents in a group
- Be used to create groups of Update Agents to configure
- Be used to rename and delete groups and obsolete Update Agents from the configuration
- Import and export download packages and patch files for the Update Service
- Configure how to deploy recorder update patches
- Check for updates online

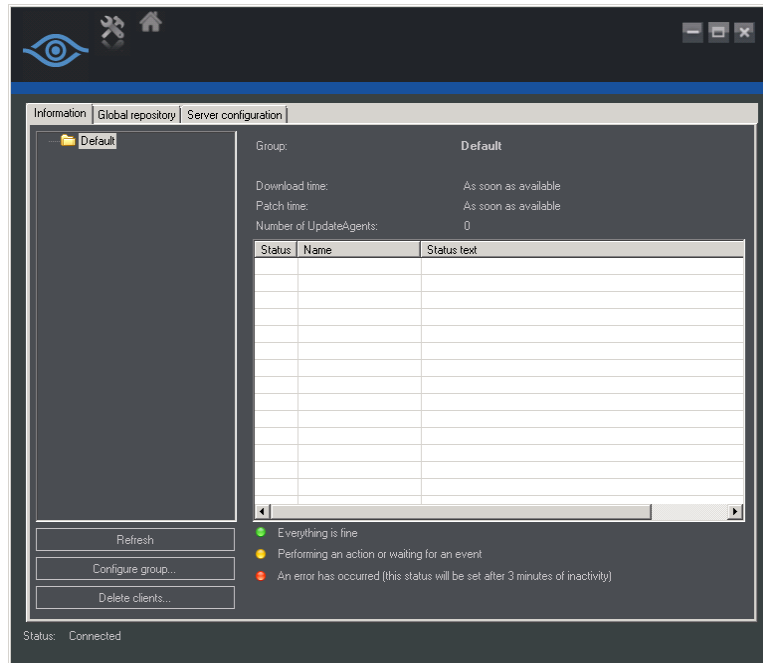
18.2 Configure the Update Service

1. On the computer with the Update Service SVR (server component), which is by default the Main Core Server, launch the Update Service tool from the Windows menu:

Start → All Programs → Qognify → Ocularis Recorder → Ocularis Recorder UpdateServer configuration tool

2. If required, confirm the system's administration privileges. The 'Information' tab is displayed.

Figure 36 Information tab



3. On the left is a tree folder structure where you can create a hierarchy of logical groups. The 'Default' group contains all Update Agents not assigned to another group.
4. Click a group folder to display the status overview of all Update Agents (Clients) in that group. Colorful bullets indicate the status of each:
 - **Red** - an error occurred at the client or the Update Agent of the client is offline for more than 3 minutes.
 - **Yellow** - the Update Agent is currently busy (patching, downloading, etc.) or waiting for an event triggered by the Update Service SVR (e.g., manual distribution of patches).
 - **Green** - the Client's Update Agent is up-to-date
5. Click a client name to display the installed components, the system software, the software version, the status, and the installed patches.
6. Click 'Refresh' to refresh the list to a more current status.
7. Click 'Configure group' to create, rename or delete a group and specify the group's update settings. Using groups allows you more control over the update configuration. See *Configure A Group* below.
8. Click 'Delete clients' to remove clients from the configuration tool.

We recommend using groups to manage the distribution of software since they provide you with more control over the update.

18.2.1 Manually Triggering an Action

If a group is configured to be updated manually, a button 'Start patch/update at the UpdateAgents' button is displayed in the group's status pane.



Click the button 'Start patch/update at the UpdateAgents' to start the update. It will require up to 60 seconds before the update process is started.

18.2.2 Configure A Group

When you click 'Configure group,' a group configuration screen appears.

Figure 37 Group Configuration

We recommend taking advantage of organizing your system with groups. Create a group (based on location or network bandwidth, etc.) and then select Clients (UpdateAgents) as members of that group. You can, for instance, group all clients that have a low bandwidth connection in a specific group. Or you can put all New York clients in a 'New York' group and all New Jersey clients in a 'New Jersey' group, etc.

The advantage of groups is that you can control update parameters on a per-group basis. The 'Default' group does not allow for such granular control.

The group configuration displays:

- Specific **Transfer time** (and date) of the update patch file(s) to be downloaded. If the time is in the past, downloads and patches will start immediately.
- **Transfer interval between Clients** (UpdateAgents) in minutes. This allows you to stagger the download of the software patch for each client. (e.g., in Figure 3, if the Transfer interval is 10, the first UpdateAgent starts the download for the patch at 4:00 AM, the second UpdateAgent starts its download ten minutes later at 4:10 AM, the third starts at 4:20 AM, and so on.)

- **Update time:** This is the date and time when software updates are applied (installed)
- **Patch time:** This is the date and time when the patch is applied (installed).
 1. Specify the required settings for this group. (Transfer time, transfer interval, update time, and patch time)
 2. Select '**Do not distribute patches/updates to these clients**' to prevent automatic distribution to the clients in this group if there is low bandwidth. Keep in mind if this option is selected, patches must be distributed manually.
 3. Select '**Don't start patching/updating automatically**' to prevent automatic installation of patches. Patching must be performed manually.
 4. Select '**Automatic restart before and after the patch/update**' to shut down the software and log out all users before applying the patch. Warning: there will not be any notification beforehand.
 5. If required, deselect Clients from the group's list. Only the selected clients will be a part of the group and affected by the group settings.

Note: *Keep in mind that if a download on a single Client fails or is delayed, subsequent patches for other Clients in the group will not download, nor will any of the patches be applied for any Client in the group.*

18.2.3 Default Group

Since the Default group does not have the same configurable parameters as a custom group you can create manually, its behavior is different. For the UpdateClients in the Default group, the software patch will not be installed until all Clients in the group have received the patch download. Then, the UpdateServer will send out a signal for all patches to be installed/applied on the Clients at the same time.

Note: *Keep in mind that if a download on a single Client fails or is delayed, none of the patches will be applied for other Clients in the Default group. Therefore, it is highly recommended to create specific groups for the Clients, rather than keep Clients in the Default group.*

18.2.4 Creating a Group

Click **Create new group**, enter a name for the new group and click **OK**. The new group will be displayed in the Group list.

18.2.5 Renaming a Group

Click **Rename group**, change the name for the group, and click **OK**. All assigned UpdateAgents will remain in the group and adhere to the group's settings.

18.2.6 Deleting a Group

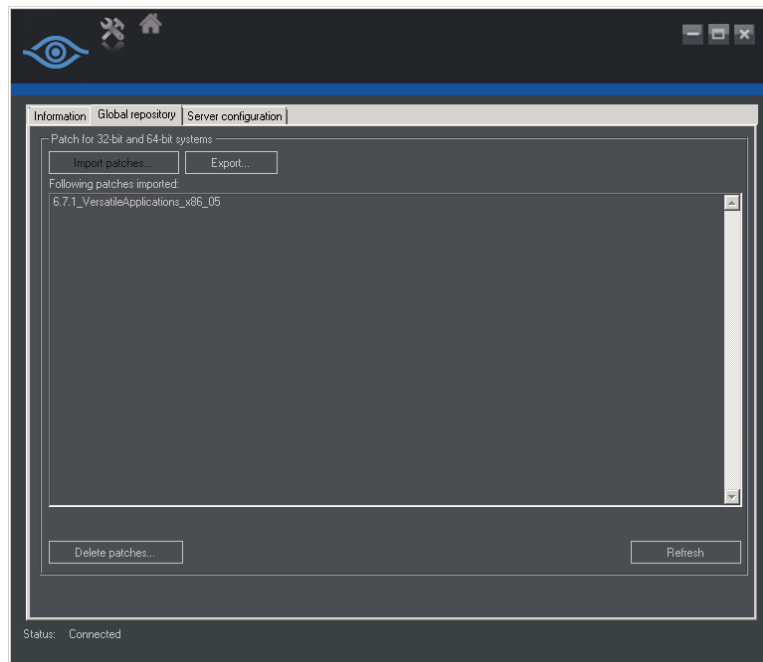
Select a group in the Groups list and click **Delete group**. All clients in the group will be moved into the Default group and will be exempt from the update settings. UpdateAgents in the Default group will get patches as soon as they are available.

The Default group cannot be deleted.

18.2.7 Global Repository

The second tab of the Update Service Configuration Tool displays the available recorder update patches. If the UpdateService has been configured for manual distribution in the 'Server configuration' tab, all updates can be imported from the server and exported to a directory on the server or an attached media.

Figure 38 Global Repository tab



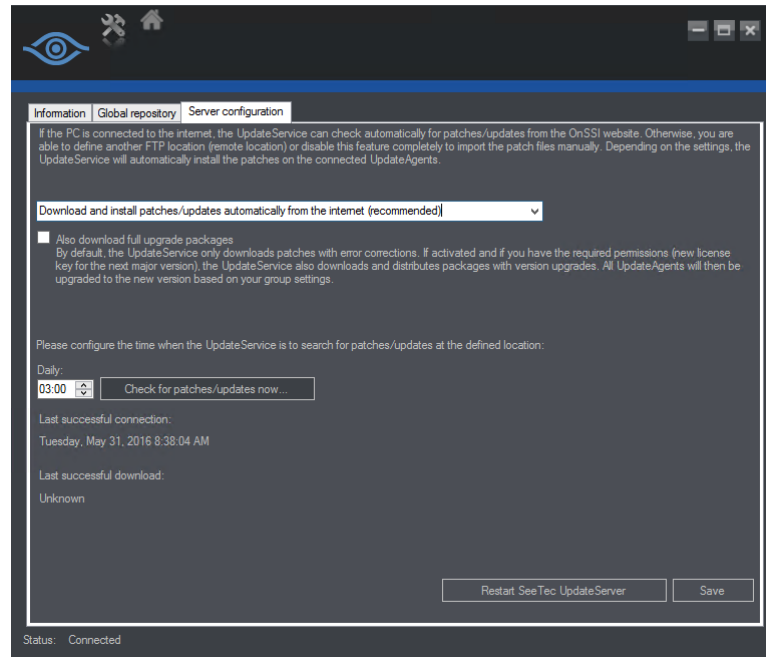
1. Click **Import patches** to download the available patches from the server which are displayed.
2. Click **Refresh** to check at the server for update patches not yet displayed.
3. Click **Export** to copy the updates to a directory that can be copied to any media such as a USB drive. The updates have to be then installed at each client separately.
4. If certain patches are not required, select the patch(es) from the list and click **Delete patches** before exporting them. Only the patches listed will be distributed.

18.2.8 Server Configuration

On the 'Server configuration' tab, the basic settings for the communication between the UpdateService SVR (Server) and UpdateAgent (clients) are managed. By default, the UpdateService connects to the server providing the updates, downloads, and distributes the

update patches to the UpdateAgents. However, if manual distribution or a different server for downloads is preferred, the automatic setting can be modified.

Figure 39 Server configuration tab



The options for downloading update patches include:

- **Download and install patches/updates automatically from the internet (recommended)**
This is the recommended and default setting for automatic updates and distribution of patches and upgrades. This requires, however, that the server with the Update SVR Service has internet access.
- **Download patches/updates from the internet, but do not install them automatically**
Update patches and software upgrades will be automatically downloaded from the server but will not be distributed to the UpdateAgents. The update patches and software upgrades must be installed manually. See *Global Repository* on page 72.
- **Download and install patches/updates automatically from a defined remote location**
The update patches and software upgrades will be downloaded from an FTP server that must be preconfigured (See *Configuring an FTP Server* below) and will be automatically installed.
- **Download patches/updates from a defined remote location, but do not install them automatically**
The update patches and software upgrades will be downloaded from an FTP server that must be preconfigured (See *Configuring an FTP Server* below),, but will not be distributed to the UpdateAgents. The update patches and software upgrades must be installed manually. See *Global Repository* on page 72.
- **Do not search for patches on the internet or any remote location (not recommended)**
This option is not recommended as no update patches or software upgrades will be downloaded or distributed automatically. The patches or software upgrades will have to

be downloaded and exported manually. See *Manually Applying Patches Only* on page 81 and *Manually Applying Software Upgrade Files* on page 83.

The option to have the update server push software application updates when available is via the checkbox:

- Also download full upgrade packages

By default, the UpdateService only downloads patches with error corrections. If activated and if you have the required permissions (new license key for the next major version), the UpdateService also downloads and distributes packages with version upgrades. All UpdateAgents will then be upgraded to the new version based on your group settings.

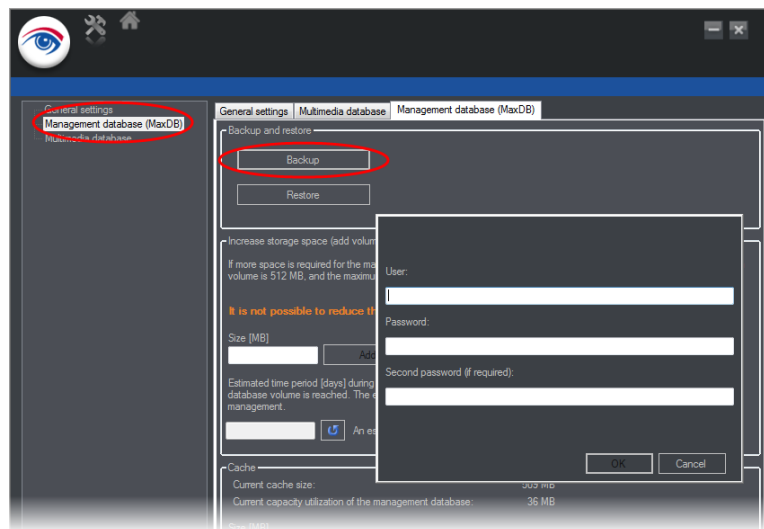
This checkbox is unchecked by default. The download of software function works in conjunction with the download options above it. So, for instance, if you've selected **Download patches from the internet, but do not install them automatically**, the software installation components will also be downloaded but not automatically installed.

18.2.8.1 Make a Manual Backup Prior to Software Upgrade

Whenever starting a software upgrade, it is always good to have a backup - just in case. Use these steps to perform a manual backup.

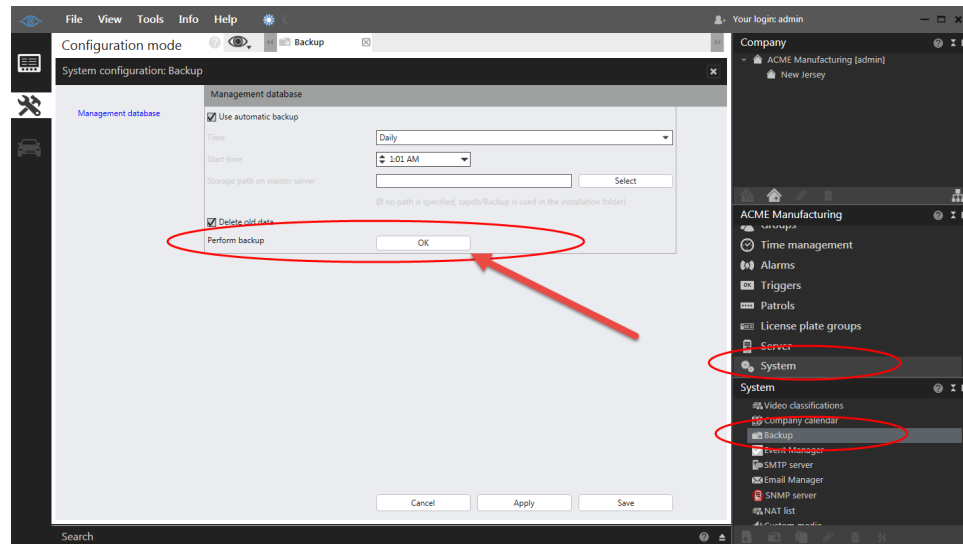
Note: *this should be done for each Main core. If you are using Ocularis ULT or ENT, this typically need only be done once. If you are using Ocularis PRO, this must be done for each Main Core instance. Backup can be done from the Ocularis Recorder Administration Tool or from Ocularis Recorder Manager.*

1. From the *Ocularis Recorder Administration Tool*:



- a. Select 'Management Database (MaxDB)'
- b. Click **Backup**
- c. Enter credentials for an administrator account on the Main Core.
- d. Click **OK**.
- e. A warning pop-up appears indicating that the backup may take several minutes. Click **OK**.

- f. On the backup successfully created pop-up, click **OK**.
 - g. Close the *Ocularis Recorder Administration Tool*.
2. From the *Ocularis Recorder Manager*:
 - a. Select 'System' from the Control Bar.
 - b. Select 'Backup'.
 - c. Click **OK** adjacent to 'Perform backup'



- d. Click **OK** when on the 'Export Successful' pop-up.
 - e. Close *Ocularis Recorder Manager*.
3. Copy the backup file to a safe location.
 4. Also, make a copy of the folder: **c:\Program Files\Qognify\Ocularis Recorder\conf** and store in a safe location.

These saved files may be used in the event a manual restoration becomes necessary.

18.2.8.2 Four Conditions for an Automatic Software Upgrade

For the automatic (or manual) update of software to function using the UpdateService, the following must be true:

- Your SMA plan is up-to-date
- You have manually refreshed your recorder SLC. (see instructions below)
- The Recorder software must be updated to the most current patch
- The 'Also download full upgrade packages' checkbox must be checked

For the update of patches, SMA needs to be up-to-date to get software fixes.

Once these conditions are fulfilled, the software will update itself automatically at the next scheduled update time.

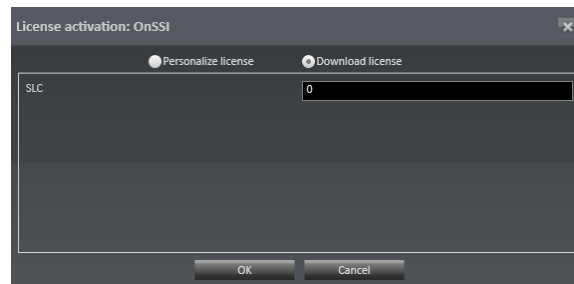
Note: We recommend scheduling the upgrade during normal business hours so that the system administrator can confirm that it was completed successfully.

Note: Make sure that each server/computer contains at least 15 GB free space on the installation hard drive.

18.2.8.3 Manually Refresh the Recorder SLC - Online Method

Use the following steps to refresh a recorder SLC with internet connectivity:

1. From the *Ocularis Recorder Manager*, select the **Info > Activate license** menu.
2. Click **OK** to clear the notice that this feature requires a connection to the Internet.
3. Click the radio button for **Download license**.



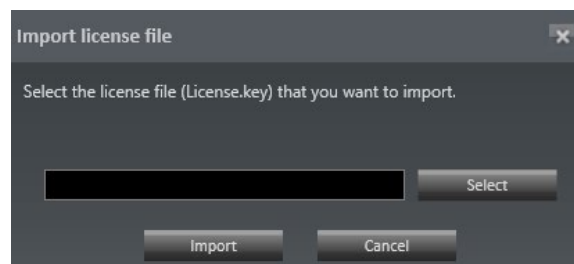
4. Enter your seven-digit SLC and click **OK**.

The software license will be updated in the background and updated key installed on your computer.

18.2.8.4 Manually Refresh the Recorder SLC - Offline Method

Use the following steps to refresh a recorder SLC with no internet connectivity:

1. Go to any PC that does have internet connectivity and open the webpage:
2. <https://www.qognify.com/support-training/licensing/> Scroll to the bottom of the page and enter your recorder SLC in the field under 'License update.'
3. The system will update your license and email it to the address used when the software was initially personalized.
4. Detach the license.zip or license.key file that is sent to the email address and bring it to the computer without internet connectivity.
5. From the *Ocularis Recorder Manager*, select the **Info > Import license file** menu.



6. Click the **Select** button, navigate to the file attachment you just received and click **Open**.
7. Then, click the **Import** button.

The license is now updated.

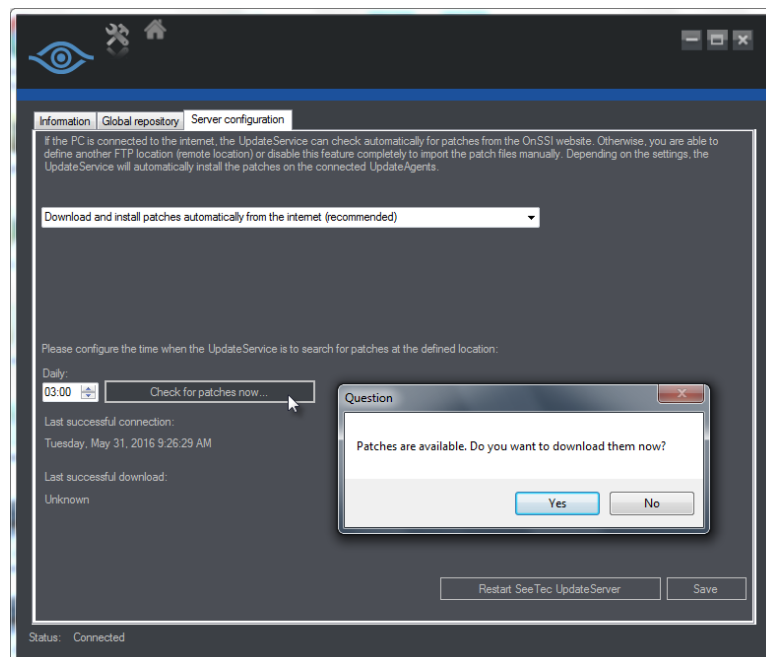
18.2.8.5 The Recorder software must be updated to the most current patch

If you've installed the Update Service using default values, it will automatically download and install the latest update patch at the next scheduled update (if it hasn't already done so).

18.2.8.6 Manually Check for Patches using the Update Service

1. On the Main core server (or server that contains the Update SVR Service), open the *Ocularis Recorder Update Server configuration tool* in the **Windows > Start > All Programs > Qognify > Ocularis Recorder** folder.
2. Click the **Server Configuration** tab.

Figure 40 Server configuration tab



3. Verify that 'Download and install patches automatically from the internet (recommended)' is selected.
4. Click 'Check for patches now...' to download any new patches.

The system will be updated with this patch:

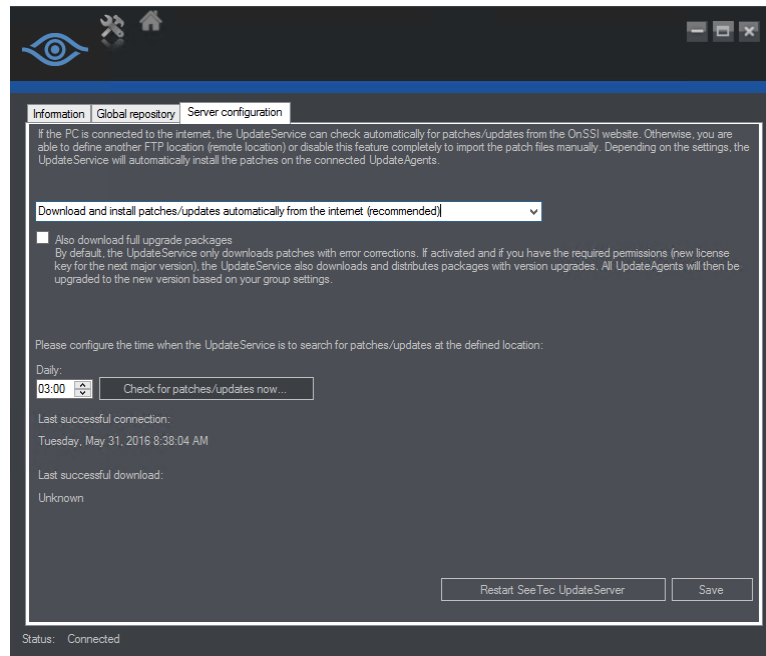
- For clients in the Default group: immediately
- For clients in a custom group: upon the next scheduled patch time as configured

18.2.8.7 The 'Also download full upgrade packages' checkbox must be checked

With the most up-to-date patch installed, the *Ocularis Recorder Update Server Configuration Tool* will have some new settings available.

1. On the Main core server (or server that contains the Update SVR Service), open the *Ocularis Recorder Update Server configuration tool* in the **Windows > Start > All Programs > Qognify > Ocularis Recorder folder**.
2. Click the **Server configuration** tab.

Figure 41 Updated Ocularis Recorder Update Server Configuration Tool



3. Now, underneath the drop-down menu, you'll see a new checkbox:

- Also download full upgrade packages**
By default, the UpdateService only downloads patches with error corrections. If activated and if you have the required permissions (new license key for the next major version), the UpdateService also downloads and distributes packages with version upgrades. All UpdateAgents will then be upgraded to the new version based on your group settings.

This checkbox is unchecked by default. The download of software function works in conjunction with the download options above it. So, for instance, if you've selected **Download patches from the internet, but do not install them automatically**, the software installation components will also be downloaded but not automatically installed.

4. Check the *Also download full upgrade packages* checkbox.
5. Click **Save**.

The software will be upgraded to the next version at the next scheduled **Update time**. You can check this by clicking the **Information** tab, click a group and then click **Configure Group**. (see Figure 42 Update time).

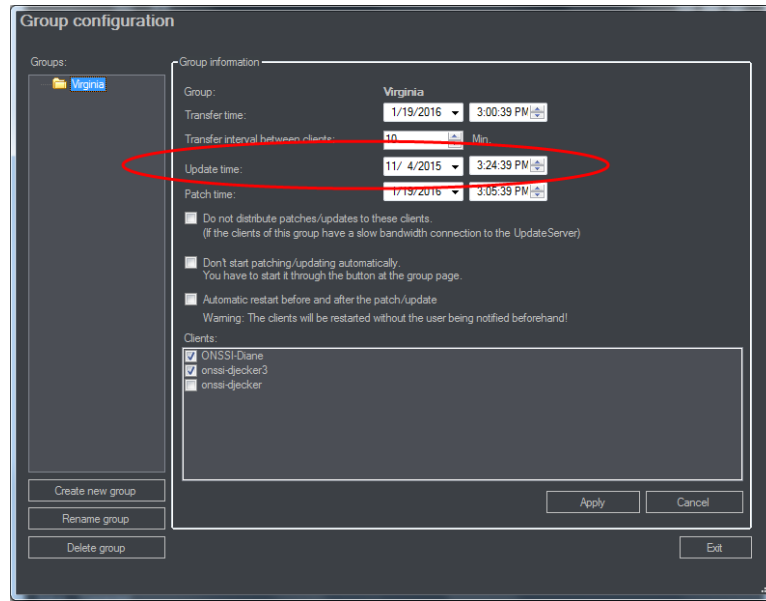
6. If you want to check for updates now without waiting for the next schedule Update time, click the **Check for patches/updates now** button.

Note: *It may take a few minutes after clicking **Save** to recognize updates so we recommend waiting a few minutes after clicking **Save** before clicking **Check for patches/updates now**.*

18.2.8.8 To check the Update Time

A new field is available for setting the time for software upgrades with the **Update time** fields. In the *Ocularis Recorder Update Server Configuration Tool*, click the **Information** tab, click a group and then click **Configure Group**.

Figure 42 Update time



Notice how now you can have different times for recorder patches/fixes and software upgrades.

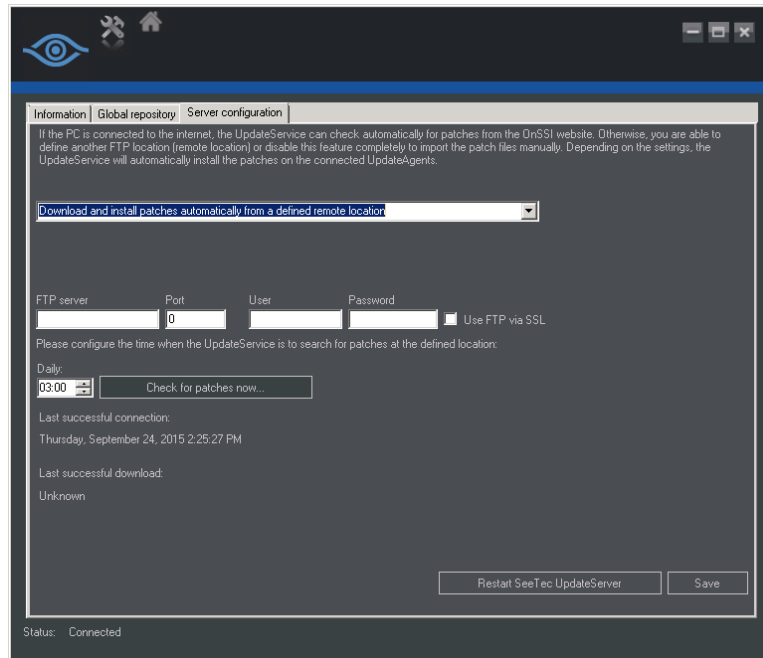
For more information on software upgrades, contact Technical Support.

18.2.8.9 Configuring an FTP Server

If you prefer to use an FTP Server to distribute update patches across the network, use these steps for configuration.

1. After selecting the option: **Download and install patches automatically from a defined remote location**, enter the IP address and port number of the FTP server.

Figure 43 Configure FTP Server Settings



2. Provide a username and password for the server.
3. To establish a secure connection, activate 'Use FTP via SSL' (if the server supports SFTP). Contact the network administrator for the correct settings.

18.2.9 Import of Patches at the Update Agent

1. After successfully exporting patches (see *Global Repository* on page 72), copy the directory to a USB drive and insert into the computer where the UpdateAgent is running.
2. Start the application 'SeeTec.UpdatePatchImport.exe' and click **Yes**.
The SeeTec.UpdatePatchImport.exe is created after you've clicked 'Export' on the Global Repository tab.
3. Click **OK** and start the update patch process. The UpdateAgent will be stopped for the update process. After completion, the UpdateAgent (VMS_UPDATER) will be restarted automatically.

18.2.10 Manually Configure & Activate Update Agent(s)

The UpdateService Agent (VMS_UPDATER) is installed by default for all recorder components (except the Main Core). If the IP address of the Update Service Server (VMS_UPDATESVR) should change after installation, you can configure the agent manually without having to reinstall the software.

1. Open the configuration file in the installation directory on the agent pc. This file should be located in '...\conf\' and named: **updateclient.conf.xml**
2. Replace the existing IP address with the new IP address of the Update Server server component (VMS_UPDATESVR).

For example:

```
<?xml version="1.0"?>
```

```
<ServerInformation xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <ip>192.168.11.155</ip>
  <port>63000</port>
</ServerInformation>
```

Replace 192.168.11.155 with the new IP address.

3. Save the changes and restart the agent update service (VMS_UPDATER).

18.2.11 Manually Applying Patches Only

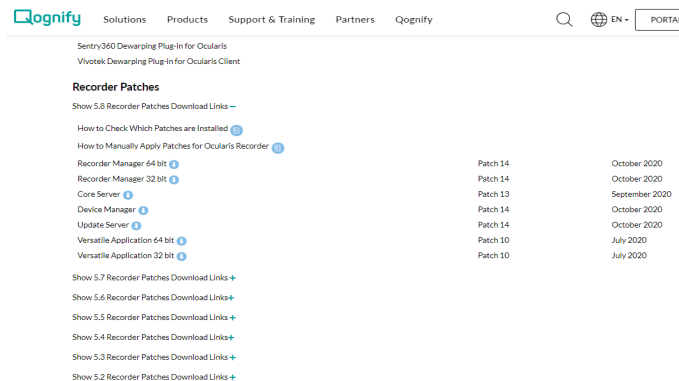
If the system with the Update Service Server component (VMS_UPDATESVR) does not have internet connectivity, you should manually apply the recorder patches/fixes using these steps. The patches can then be automatically distributed.

Note: When manually uploading a patch file, the Automatic Update service will start the patching process for clients/agents in the Default group right away. This will cause recorder components to stop and start as they are patched. Clients/agents in a configured group will be patched based on the group's configured schedule.

Note: Make sure that each server/computer contains at least 15 GB free space on the installation hard drive.

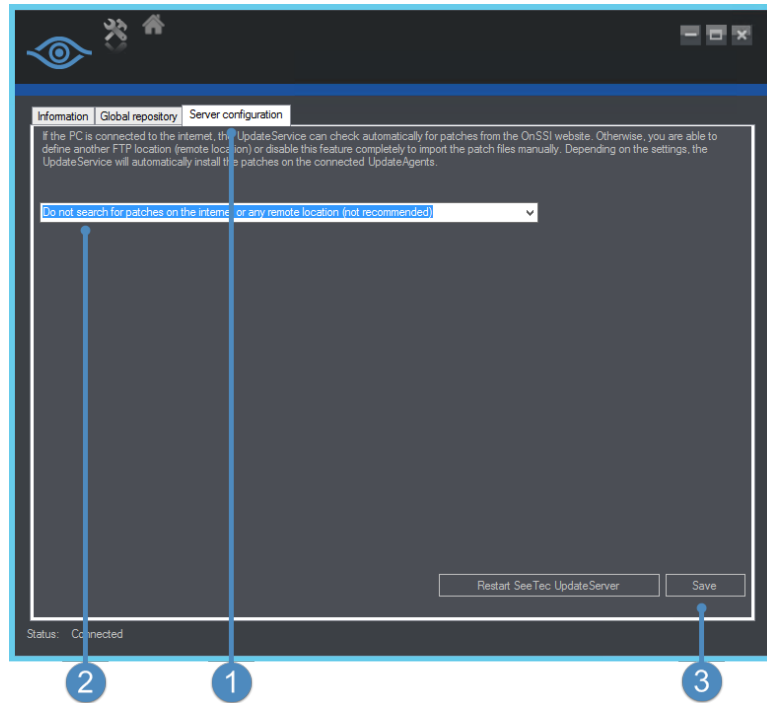
1. On any PC that does have internet connectivity, go to the webpage: <https://www.qognify.com/support-training/software-downloads/>
2. Scroll to the **Recorder Patches** section.
3. Click **Show 5.x Recorder Patches Download links** for the version you wish to update.

Figure 44 Manually Download Recorder Patches from the website



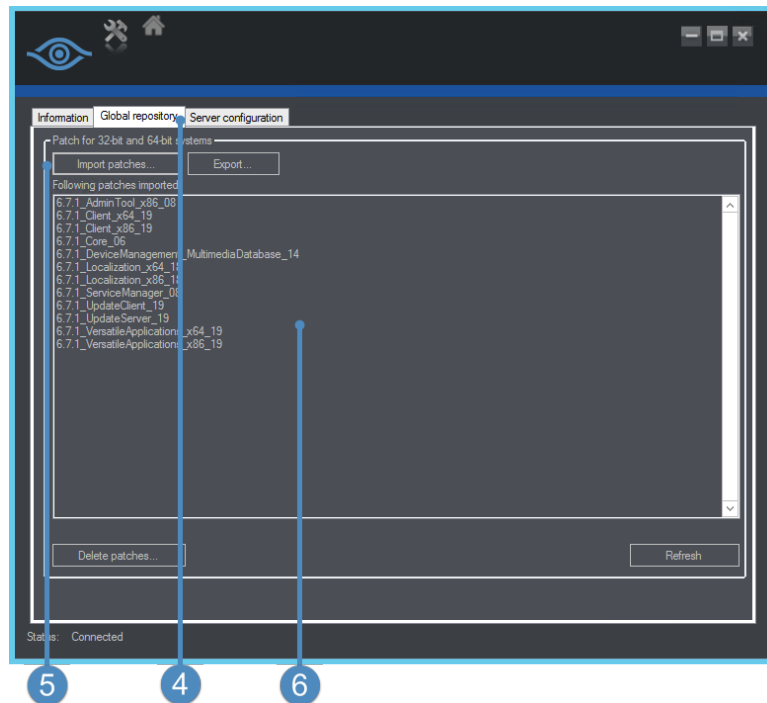
4. Click each link and download all patches to portable media. Do NOT unzip the files.
5. Transfer the files to the server where the Update SVR Service exists. (default is the Main core machine)
6. Launch the **Ocularis Recorder UpdateServer configuration** tool and select the 'Server configuration' tab (1).

Figure 45 Manual Application of Recorder Patch/Fix-Server configuration tab



7. From the drop-down menu, select 'Do not search for patches on the internet or any remote location' (2)
8. Click **Save** (3).

Figure 46 Manual Application of Recorder Patch/Fix - Global repository tab



9. Select the 'Global repository' tab (4).
10. Click **Import patches** (5) and select the patches downloaded from step 5. You can select all and import them as a group. Click **Open** to import the patch files.
11. Once imported, the patch files will appear in the 'Following patches imported' list (6).

For components in the Default group, the patches will begin to be distributed and installed. For components in configured groups, the patches will be distributed based on the configured schedule. The progress of updates can be viewed in the 'Information' tab.

18.2.12 Manually Applying Software Upgrade Files

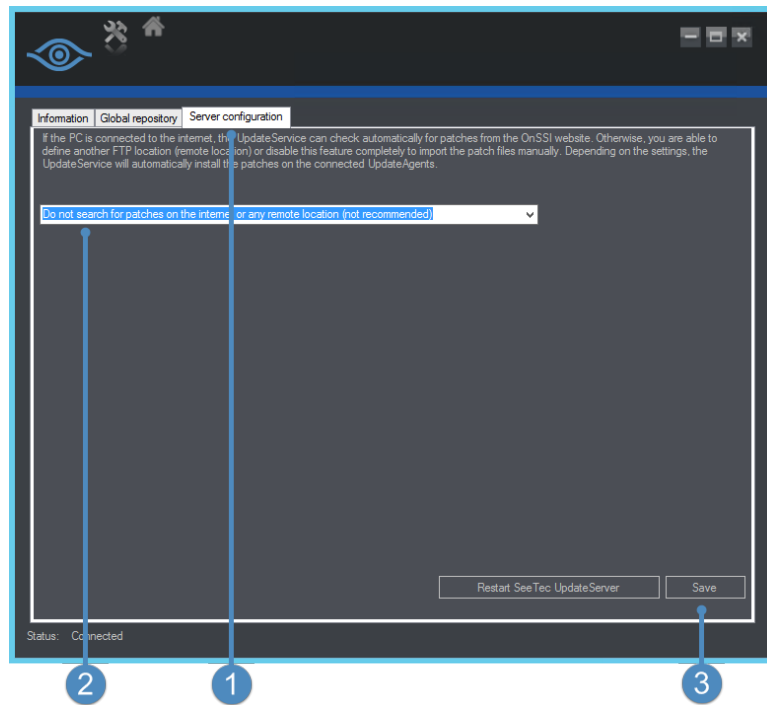
In addition to patches and fixes, the Update Service can also be set to automatically download software upgrades when a new version is released. If the system with the Update Server service component (VMS_UPDATESVR) does not have internet connectivity, you should manually apply the recorder software upgrade files using these steps. The upgrade can then be automatically distributed.

Note: *When manually uploading software upgrade files, the Automatic Update service will start the upgrade process for clients/agents in the Default group right away. This will cause recorder components to stop and start as they are upgraded. Clients/agents in a configured group will be upgraded based on the group's configured schedule.*

Note: *Make sure that each server/computer contains at least 15 GB of free space on the installation hard drive.*

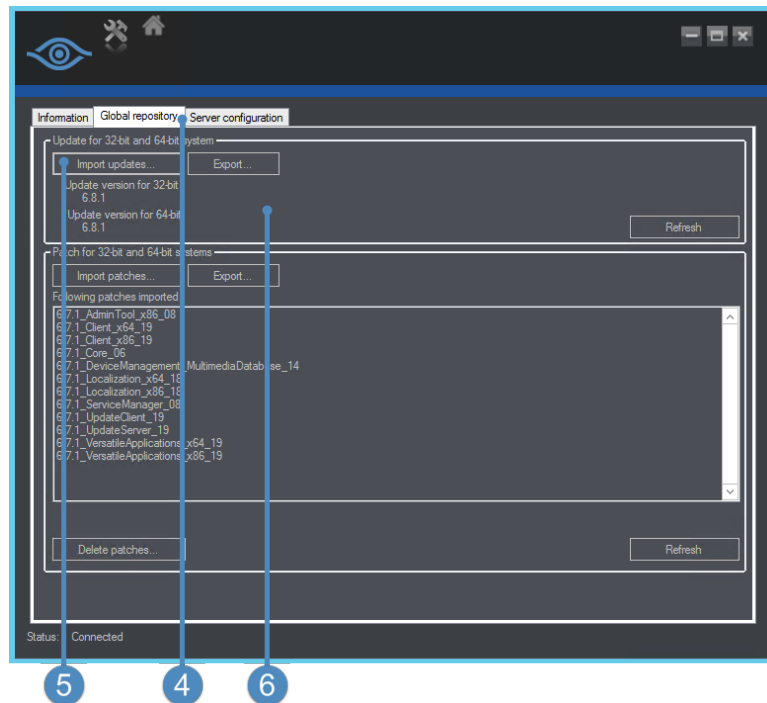
1. Obtain the software upgrade files from <http://www.qognify.com>
2. Transfer the files to the server where the Update SVR Service (VMS_UPDATESVR) exists. (the default is the Main core machine)
3. Launch the **Ocularis Recorder UpdateServer configuration** tool and select the 'Server configuration' tab (1).

Figure 47 Manual Application of Software Upgrade - Server configuration tab



4. From the drop-down menu, select 'Do not search for patches on the internet or any remote location' (2)
5. Click **Save** (3).

Figure 48 Manual Application of Software Upgrade - Global repository tab



6. Select the 'Global repository' tab (4).

7. Click **Import updates** (5) under 'Update for 32-bit and 64-bit applications and select the two files to download. You can select all and import them as a group. Click **Open** to import the patch files.
8. Once imported, the version will be listed for 32-bit and 64-bit (6).

For components in the Default group, the upgrade will begin to be distributed and installed. For components in configured groups, the upgrade will be distributed based on the configured schedule. The progress of updates can be viewed in the 'Information' tab.