Ocularis 5.3
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US patent # 8,390,684 B2 for Ocularis Client
Patents Applied For in the U.S. and Abroad
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Introduction

Ocularis 5 is OnSSI’s newest and most innovative and cost effective open platform Video Management Software (VMS) and is designed to enhance your security while simplifying your daily workload.

These instructions should be used by administrators installing an Ocularis system.

Ocularis Models

Ocularis version 5 is offered in three models, 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 Professional (PRO) – Scalable video management for small to medium single and multi-site applications.

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

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

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 and an integrated alerting application.

- **Ocularis Administrator** - The front end software application used to manage Ocularis Base.

- **Ocularis Recorder** - An application is required to supply camera configuration and recording.

- **Ocularis Client** – OnSSI’s award winning video client application.

- **Optional Add-On Applications** – these include Remote Video Wall, Ocularis Media Server, and Ocularis OpenSight™. Add-ons are made available as they are introduced. See our website [www.onssi.com](http://www.onssi.com) or call OnSSI Sales for information on Ocularis Add-Ons.

These instructions provide detailed instructions for installing Ocularis and its components. For a more concise installation guide, see the *Ocularis Quick Start Guide*.
Where to Install Components

Ocularis 5 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 se@onssi.com for pre-installation advice on system layout. All Ocularis components are 64-bit applications.

**It is important to note:**

- For Ocularis Ultimate and Ocularis Enterprise, there must be at least one 'Core'. The first Core that is installed is called the 'Master' Core. It is the only core that is required on these systems and in most cases there should be only one Master Core installed. Optionally, you may install an additional core, known as a ‘Slave’ core that automatically provides redundancy for the Master 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 Master Core and DM on each server. There are no Slave Cores in this model. Each Master Core requires a unique SLC available from OnSSI Sales.

**Ocularis Professional**

Ocularis Professional has a maximum limit of 128 cameras per server. Each server contains a Core (Master) and Device Manager (DM). The Master Core is what is licensed so if you need additional servers, contact OnSSI Sales to obtain additional SLCs. **This is the ONLY model where a Master Core is required on each server.**
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 Master Core and Device Manager (DM). Add additional DM servers if you want to add more cameras on a separate machine. You may install a ‘Slave’ core as an optional redundant backup for the Master 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 OnSSI website.

You are not required to add a core to each server.
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 Master 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 'Slave' core as an optional redundant backup for the Master 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 OnSSI 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 OnSSI Sales Engineering at se@onssi.com.
Getting Started with Ocularis

Minimum System Requirements

Requirements for individual components may be found at: http://www.onssi.com/hardware-recommendations.

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. Download and extract the Ocularis model installation file(s) from http://www.onssi.com/support/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 OnSSI Sales Engineering if you have any questions on the layout of your system prior to installation.
   - System requirements may be found on the http://www.onssi.com/hardware-recommendations website for detailed hardware and operating system specifications.
   - Refer to Installing Ocularis Base on page 13 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 17 for more details on how to activate the software.
4. Install the Ocularis Administrator application.
   - This component must be installed on a workstation with network connectivity to the Ocularis Base component. It may reside on the same PC as the Base provided that graphic card requirements are met. You may install it on as many PCs as needed.
   - Refer to Installing Ocularis Administrator on page 23 for details on the software installation.
5. Install the Ocularis recording component software.
   - The Ocularis Professional, Enterprise and Ultimate recorders contain the following components supported in this version:
     1.) Master 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.) Slave Core Server (optional and only in Ocularis ENT and ULT)
     5.) Event 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 24 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*.

12. Configure the event proxy to forward events from the recorder to the Ocularis Base Server.
   • Installation and configuration of Event 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 Master Core.
   • See *Ocularis Recorder Licensing* on page 35 for further instructions.

**Upgrading to Ocularis Version 5.3**

Refer to the document *Upgrading to Ocularis 5.3* for full details on upgrading an Ocularis system. Use the instructions found here for new installations.
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.

- Depending on your current Windows configuration, you may be asked to insert your original Windows installation CD in order to install additional Windows components.

- 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 Event Proxy

Error! Reference source not found.
Download the Ocularis Installation File

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

1. Open a browser and go to the ‘Support → Download Software’ page on the OnSSI website
2. On the ‘Download Software’ page, click the link for the Ocularis download: Ocularis Full Release 5.3
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.
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 OnSSI website or obtained through other means. The filename is: Ocularis Installer 5.3.exe. 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.

4. Click **Next**.

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

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

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 have completed the extraction of the Ocularis installation files.
Installing Ocularis Base

Reminder:

- Prerequisite: please install Microsoft .NET version 4.5 (or above) prior to or immediately after installing or upgrading Ocularis Base to save installation time.
- 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 2014 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 feature sets 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).**

1. To install Ocularis Base after extracting the installer files (from Extract Ocularis Installation File on page 11), 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.

2. 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
      
      ![Activate License Now?](image)

      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 9 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.

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3. The Ocularis Base Setup Wizard screen appears.

![Figure 6 Ocularis Base Setup Wizard]

Click **Next**.

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

5. 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:**

a. 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\OnSSI\Ocularis Base`
- Bookmark location is designated as: `c:\inetpub\wwwroot\OcularisService\Bookmarks`
- Windows IIS is installed
- SQL Server 2014 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 see a warning message if you are installing Ocularis Base on Windows 7 or other non-server level operating system. For demos and small applications, click ‘Yes’ to continue with the installation. For most standard production systems we recommend installing Ocularis Base on a server class operating system.

**Note:** You may also see a message about dependencies required such as .Net Framework, SQL Server 2014, VC++ Redistributable 2010 and DirectX9c. Click ‘OK’ to install these (any missing components will be access from the OnSSI 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.
**Ocularis Installation & Licensing Guide**

**Installing Ocularis Base**

**SQL Server Options Defined:**

**Use Ocularis default SQL Server instance** – this default option will install SQL Server 2014 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.

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 **Back** to make changes or click **Next**.

**Note:** You may see a warning message if you are installing Ocularis Base on Windows 7 or other non-server level operating system. For demos and small applications, click ‘Yes’ to continue with the installation. For most standard production systems we recommend installing Ocularis Base on a server class operating system.

**Note:** You may also see a message about dependencies required such as .Net Framework, SQL Server 2014, VC++ Redistributable 2010 and DirectX9c. Click ‘OK’ to install these (any missing components will be accessible from the OnSSI website).

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

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

7. 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.
Installing Ocularis Base

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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.

8. 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.

The installation of Ocularis Base will create the following icon on the desktop:
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 5 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.

**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

**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 9 Unlicensed Ocularis Base](image-url)
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 OnSSI’s licensing server. OnSSI’s 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.

**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 v5 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.

**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 9 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. The screen updates with additional steps:

![Figure 11: Additional Steps for Offline Licensing](image)

4. 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 (x86)\OnSSI\Ocularis Licensing Activation\OfflineActivation

5. Copy this file to portable media and bring to a computer that has internet connectivity.

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

7. The default web browser should launch and load a page with a Download button. Click the **Download** button.

8. 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.

9. Bring the response.xml file back to the Ocularis Base computer.

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

11. 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**.

12. 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.

**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.

**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 OnSSI's licensing server. OnSSI's 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.

**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 (x86)\OnSSI\Ocularis Licensing Activation\OfflineActivation`
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.

**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 OnSSI Technical Support for further assistance.

**To Deactivate an Ocularis license**

1. Launch the **Ocularis License Activation** application.
2. Notice the **Deactivate License** icon.
   
   ![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 13) 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 **OnSSI Tech Support** to deactivate the SLC.
Installing Ocularis Components

Components of Ocularis, namely: Ocularis Client, Ocularis Administrator, Ocularis recording components, Ocularis Event 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.

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 OnSSI Sales Engineering (mailto:se@onssi.com).

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.

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.

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 OnSSI Sales Engineering for system layout advice if you are unsure.
To Access the Ocularis Component Downloads Page

Note: Be sure to turn off any Firewalls running on the Ocularis Base machine.

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 not necessary 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:

   ![Install Ocularis Components Web Page](image)

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.
Installing Ocularis Administrator

- Refer to the system requirements defined on the OnSSI website for hardware specifications.
- 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 17 for more details.
- Follow this procedure when installing a new system or upgrading an older version of Ocularis Administrator.

TO INSTALL OCULARIS ADMINISTRATOR

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

1. From the ‘Ocularis Component Downloads’ web page, click the Download button next to Ocularis Administrator.
2. 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.
3. Launch file to run. Once Run has been selected, the Welcome to Ocularis Administrator Setup Wizard appears. Click Next.
4. The License Agreement appears. Please read, click the “I accept..” radio button, and then click Next.
5. 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.
6. 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.
7. 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.
   The Ocularis Administrator software is installed.
8. When completed, the Setup Wizard Complete for Ocularis Administrator screen appears.
9. Click Finish.

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

- The Ocularis Client may be installed on as many systems as desired.
- Refer to the system requirements defined on the OnSSI website for hardware specifications.
- Follow this procedure when installing a new system or upgrading existing copies of Ocularis Client.

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 feature sets of Ocularis.

1. From the ‘Ocularis Component Downloads’ web page, click the Download button next to Ocularis Client.
2. 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 Client Setup Wizard screen.
3. Once Run has been selected, if a previous version of the Ocularis Client 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 Client…?” screen appears. Click Yes.
   b. When the uninstall is complete, click OK.
4. The Welcome to Ocularis Client Setup Wizard appears. Click Next.
5. The License Agreement appears. Please read, click the "I accept.." radio button and then click Next.
6. 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.
7. 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.
8. 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.
   The Ocularis Client software is installed.
9. 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 icons:
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 OnSSI 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 is installed during installation, and Microsoft .NET Framework as well, which may require a restart in the case of a first time installation.
- The recording component included with Ocularis 5 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.

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 5 include:

<table>
<thead>
<tr>
<th>Recorder Component</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocularis Professional Recorder</td>
<td>R9 v6.9.1</td>
</tr>
<tr>
<td>Ocularis Enterprise Recorder</td>
<td>R9 v6.9.1</td>
</tr>
<tr>
<td>Ocularis Ultimate Recorder</td>
<td>R9 v6.9.1</td>
</tr>
</tbody>
</table>

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 ‘Master’ core. In Ocularis Enterprise and Ocularis Ultimate you can set up one core (‘the slave’) to be redundant for the primary (‘the master’) core. In Ocularis Professional, there is a ‘Master 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, 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 Master Core.
- **Ocularis Recorder Manager** – This is the software application used to configure the Core and DM(s).
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 v5 Recorder.

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

There are four set up 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 set up types.

**NOTE:**
- With Ocularis Professional **ONLY** you must install a Master 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 OnSSI Sales.
- With Ocularis Enterprise or Ultimate there should be only one Master Core and optionally one or more Slave 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 'Slave' core. These models use only one SLC per environment. We recommend installing at least one Slave core at the company level.

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

![Figure 13 Select the Set up Type](image1.png)

![Figure 14 Communication Information](image2.png)

The port number of the Management service (Master Core) is set at '60000'. If the port number must be changed, contact OnSSI 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 Master Core Server. This is the default value and is recommended. See **Update Service** on page 35 for more information on the Update Service.

   **Click Next.**
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 Master, Device Manager and Ocularis Recorder Manager are now installed on your computer.

**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. There are two ways to install only the Ocularis Recorder Manager.

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 13)* and click **Next**.
9. Click **Install** to begin the installation.
10. When asked, accept the EULA (End User License Agreement for installing the DirectX 9 component. This window may appear behind the primary installation window.

From the shortcut on the Ocularis Component Downloads page:

1. From the ‘Ocularis Component Downloads’ web page, click the **Download** button next to Ocularis Recorder Manager.
2. Choose to **Run** the application to launch the installer (or save the file and launch manually).
3. Change the destination folder for the installation files if desired. Click **Next**. The installation files are extracted.
4. **At the Extraction Complete** screen, make sure the 'Install Ocularis Recorder Manager' checkbox is checked. Click **Finish**.
5. Select the installation language. You can configure the language of the user interface after the installation.
6. Click **OK** to start installation.
7. At the **Welcome** screen, click **Next**.
8. Read the software license agreement, accept the terms and then click **Next**.
9. Change the destination folder for the application files if desired. 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.
12. On the Wizard Complete screen, click **Finish**.

**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 and configured Ocularis Recorder Manager and Master 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 13) and click Next.

![Figure 16: Communication Information](image)

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

**It is important to enter the IP address of the Master 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 Master Core Server since this is the default. See Update Service on page 35 for more information on the Update Service.

Click Next.
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.
**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 Slave that serves as a redundant server and thus increases the reliability of the Master 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 13**) and click **Next**.
9. Select the desired services and features. **Core Service Slave and Core Service Master cannot both be installed simultaneously on the same machine.**

![Figure 18 Select Components to Install](image)

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 18 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 Master 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 Master Core. If you have already installed this service and are using the 'Custom' option to install other components, such as a CoreService Slave, 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 35.

10. Click **Next**.
11. This screen is dynamic based on the components you selected to install.

- If you are installing only a Master 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 Master Core Server
  - The **Update service-Host** field should contain 'localhost' and '63000' in the **Port** field.

- If you are installing only a Master Slave Server:
  - **Management service/Host and Port**: Enter the IP Address of the Master 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 Master 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 Master 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 Master Core Server and '63000' in the **Port** field.

- If you are installing a Master 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 Master Core Server (so 'localhost' is acceptable) and '63000' in the **Port** field.

- If you are installing a Slave Core Server and a Device Manager:
  - **Management service/Host and Port**: Enter the IP Address of the Master 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 Master Core Server and '63000' in the **Port** field.
Ocularis Installation & Licensing Guide

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 OnSSI→Ocularis Recorder.

First Time Login to the Recorder

You will need to login 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. Use the credentials (IP address or hostname) for the Master Core Server.
3. Use the username: admin
4. Use the password: admin
5. Upon first successful login, you will be required to change the password for the 'admin' user.

![Image of Change password for 'admin']

6. 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’.
7. Enter the password in again.
8. A second password is not used with Oculars, so bypass this step.
9. Click OK.

IMPORTANT: If you forget the admin password and no additional users have been created to the administrator group, it will no longer be possible to access the system configuration settings. DO NOT FORGET THE ADMIN PASSWORD.
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 recording system components and download the update if it is available. Recorder 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 Master 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 Master 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 Master 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 Master 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 OnSSI Technical Support prior to doing so. For more information on the Update Service, refer to Appendix B Update Service on page 46.

Ocularis Recorder Licensing

Unlike many other recorders, the Ocularis 5 Recorder does not license specific cameras. There is no need to identify device MAC addresses to OnSSI. Rather, the number of channels (or streams) is licensed on the recorder’s Master Core. The license process for the Ocularis 5 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.

Supported Recorders

The recorders supported using the license methods described here are: Ocularis Professional Recorder, Ocularis Enterprise Recorder and Ocularis Ultimate Recorder. To register camera licenses for any other Ocularis legacy recorder (such as RC-E) use the instructions provided in the document Ocularis Camera License Registration.

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 ‘500’.

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

Licensing Online

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

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 OnSSI registration server and obtains the license.

You are done!

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

**Licensing a Demo Version Online**

Use these steps to license a demo system.

1. You will receive a demo license file from OnSSI.
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**.

**Licensing Offline**


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.
5. In the section: ‘Initial installation: New license code’, enter your SLC (i.e. the 7 digit SLC with the prefix ‘500’) 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 OnSSI 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**.
**Changes to Server Hardware**

If you need to use new hardware with an existing Ocularis Master 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.


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!

**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: [http://onssi.com/ocularis-recorder-licensing/](http://onssi.com/ocularis-recorder-licensing/)

2. Scroll to the section ‘License update: Re-licensing’. Enter your recorder SLC. This 7 digit SLC should start with the prefix ‘500’. Click **Submit**.

3. 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.

4. In the *Ocularis Recorder Manager*, choose the *Info* menu and select **Activate Product >> Offline**.

5. Click the **Import license file** tab.

6. Click **Select** to navigate to the license file from the email. Select the file and then click **Open**.

7. Click **Import** to use the updated license key.

You are done!
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.

The Ocularis Component Downloads webpage provides a separate installer which allows you to download and install just this recorder component on another computer, saving you the time from having to download the entire recorder package. Installing this component separately is optional. This application is available for 32-bit or 64-bit operating systems.

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

These instructions assume that you have installed Ocularis Base and are located at the system on which you wish to install the Ocularis Recorder Manager. There should be no other instance of Ocularis Recorder Manager installed on the local machine.

To Install only the Ocularis Recorder Manager

1. From the ‘Ocularis Component Downloads’ web page, click the Download button next to Ocularis Recorder Manager.
   
   **Note:** This installs the 64-bit version. If you need the 32-bit version, use the Ocularis Recorder download and choose ‘Custom’.

2. 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.

3. Launch file to run. Once Run has been selected, you are prompted to select an installation language. Select a language and click OK. You may change the language after installation if desired.

4. At the Welcome screen of the installation wizard, click Next.

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

6. The Choose Destination Location screen appears.
   
   You may leave the default directory path as is or change it if necessary according to your organization. Click Next.

7. The next screen, Ready to Install the Program, click Install if OK or click Back to make changes to the directory path or the folder.
   
   The Ocularis Recorder Manager software is installed.

8. A Microsoft DirectX Setup software license agreement should appear. (it may be behind the installation window). Click Yes to accept the terms of the agreement.

9. When completed, the Wizard Complete screen appears. Click Finish.

The following icon appears on the desktop:
Ocularis Recorder Event Proxy

Ocularis Event Proxies are used to route events and other information from a server or recording component to the Ocularis Base or other 3rd party system. The Ocularis 5 models all make use of the event proxy for events from the recorder as well as for other tasks. The installation of an event proxy is required for Ocularis Media Server as well as for supporting multiple live streams. The Event Proxy should be installed on the same machine as the Master Core in most cases.

**Note:** If you are running a Mix & Match environment and are running v4.x recorders with corresponding event proxies, you will need to upgrade the legacy event proxy to 64-bit if it is running on a computer with other Ocularis components. You may download a 64-bit version of a v4.x event proxy from the OnSSI website at [http://onssi.com/software-downloads/](http://onssi.com/software-downloads/).

To Install the Ocularis Event Proxy

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

1. From the ‘Ocularis Component Downloads’ web page, click the **Download** button next to Ocularis Recorder Event Proxy.
2. 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 Event Proxy Setup Wizard** screen.
3. Once **Run** has been selected, 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 Event Proxy…?” screen appears. Click **Yes**.
   b. When the uninstall is complete, click **OK**.
4. The **Welcome to Ocularis Event Proxy Setup Wizard** appears. Click **Next**.
5. 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**.
6. 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.
   The **Ocularis Recorder Event Proxy** software is installed.
7. When the **Ocularis Recorder Event 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 icons:
To Configure the Ocularis Event Proxy

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

   ![Figure 21 Ocularis Event Proxy](image1)

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

   ![Figure 22 Recorder Settings](image2)

3. Enter the **IP Address** for the recorder's **master core**. Note that `localhost` is not supported. Also provide a username and password for an administrative account that is on the master core.

4. Click **Test Connection**. Communication with the server is tested and if successful, a pop-up message appears indicating as such.

5. Click **Save & Close**.

   Once the recorder is configured, the **Base Settings** button becomes enabled.
6. Click **Base Settings**.

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

   If the checkbox ‘Auto Update Recorder’ is checked, the recorder defined above in Figure 22 will be refreshed in the **Ocularis Administrator Servers/Events** tab when the Event Proxy service is restarted. If this recorder isn’t already there it will be added automatically to the **Servers/Events** tab.

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

8. When done, click **OK**.

9. The last step is to select the events that you wish the proxy to forward to the Base IP(s) you listed. Click **Event Filters**.
The events you see listed are grouped by Camera Events and System Events. Check the events you want transferred from the recorder to the Base. Note: any alarms that you have configured on the recorder will automatically be transferred to the Base.

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

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

11. Click **Save & Close**.
## Event Proxy Events Defined

### Camera Events:

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Edge Storage Import</td>
<td>Edge Storage video was imported from the camera</td>
</tr>
<tr>
<td>Alarm Recording Start</td>
<td>Alarm Recording (such as motion) started</td>
</tr>
<tr>
<td>Alarm Recording Stop</td>
<td>Alarm Recording (such as motion) stopped</td>
</tr>
<tr>
<td>Archive Play</td>
<td>this will be removed; does not apply to Ocularis</td>
</tr>
<tr>
<td>Archive Stop</td>
<td>this will be removed; does not apply to Ocularis</td>
</tr>
<tr>
<td>Camera Offline - Initial</td>
<td>Cameras has gone offline</td>
</tr>
<tr>
<td>Camera Offline - Still Disconnected Heartbeat</td>
<td>Camera remains offline</td>
</tr>
<tr>
<td>Camera Online</td>
<td>Camera is now online</td>
</tr>
<tr>
<td>Camera Side Generic Events</td>
<td>Generic camera event has been triggered</td>
</tr>
<tr>
<td>Camera Side Motion Detection</td>
<td>Camera side motion event has been triggered</td>
</tr>
<tr>
<td>Camera Tampering - Camera Based</td>
<td>Cameras has triggered tampering event</td>
</tr>
<tr>
<td>Camera Tampering - Server Based</td>
<td>Server has triggered camera tampering event</td>
</tr>
<tr>
<td>Digital Input Closed</td>
<td>Camera input has been triggered-closed</td>
</tr>
<tr>
<td>Digital Input Open</td>
<td>Camera input has been triggered-open</td>
</tr>
<tr>
<td>Digital Output Closed</td>
<td>Camera output has been closed</td>
</tr>
<tr>
<td>Digital Output Open</td>
<td>Camera output has been opened</td>
</tr>
</tbody>
</table>

| Export FTP                       | A DM, MDS or VA MD is not running and did not shutdown cleanly. If the system thinks that a DM should be running but is not, this event will trigger. This could happen when the system is restarted but is may also indicate a major error in the system because an entire DM/VA MD is no longer running. |

| Invalid Status                  | Details unknown                                                             |
| Motion Detection Problem        | Removed in R8                                                              |
| Recording Start                 | Recording has started                                                      |
| Recording Stop                  | Recording has stopped                                                      |
| Reference Image Events          | Reference Image Comparison event has been triggered                         |
| Reference Image Restored        | Reference Image is re-saved                                                 |
| Server Side Motion Detection    | Server side motion has been detected                                       |
| Video Analysis SMD Channel      | Details unknown                                                             |

### System Events:

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Master Unreachable</td>
<td>Master Core is not reachable</td>
</tr>
<tr>
<td>Core Slave Reachable</td>
<td>Slave Core is now reachable</td>
</tr>
<tr>
<td>Core Slave Unreachable</td>
<td>Slave Core is not reachable</td>
</tr>
<tr>
<td>Core Started</td>
<td>Core server has started</td>
</tr>
<tr>
<td>Database Backup Failed</td>
<td>Backup of Core configuration database has failed</td>
</tr>
</tbody>
</table>
Event Proxy Events Defined

Database Load Emergency Shutdown
The database of a core service is almost full (at 90%). To prevent data corruption, the core will shutdown down and is no longer usable. The administrator must take measures to get the core in a good state again (add a database volume, delete events, reduce event storage time, etc.). Although this could happen on any core it is most likely on the master, because only the master stores all events.
The database of a core service has reached a high level (70%). The core will continue to work, but the administrator should investigate and possibly take measures to avoid a "Database Load Emergency Shutdown". Although this could happen on any core it is most likely on the master, because only the master stores all events.

Database Load Warning

Device Manager Cannot Start
Device Manager Service could not start

Multimedia DB Cannot Mount Zone
A DM/MDS was not able to mount a configured zone.

Multimedia DB Cannot Start MDS
The MDS could not start. This is a generic error that means "The DM/MDS does not work".

Multimedia DB Edge Storage Recording Fetched
MDS Services has retrieved video from a Edge Storage device.

Multimedia DB Storage Overflow
A DM/MDS ran out of disk space and cannot write any new data.

Multimedia DB Almost Full
Storage Zone is almost full.

Multimedia DB Zone Space Full
Storage zone is full. Video may be deleted.

Server Time Changed
A DM detected that the Windows time changed by more than one hour. This may result in all kind of problems, mainly for recordings.
# Appendix A: Ocularis Ports

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

<table>
<thead>
<tr>
<th>Port Number (inbound and outbound)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 and 21</td>
<td>Used when devices use FTP for sending event messages. FTP (File Transfer Protocol) is a standard for exchanging files across networks.</td>
</tr>
<tr>
<td>25</td>
<td>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.</td>
</tr>
<tr>
<td>80</td>
<td>Port 80 is typically used by the IIS (Internet Information Services) for Ocularis and Ocularis Media Server's HTTP website.</td>
</tr>
<tr>
<td>443</td>
<td>Port used by IIS to host the Ocularis Media Server's HTTPS website.</td>
</tr>
<tr>
<td>554</td>
<td>Used by some camera manufacturers.</td>
</tr>
<tr>
<td>1024 and above (outbound only)</td>
<td><strong>(Except ports listed below):</strong> Used for HTTP traffic between cameras and servers.</td>
</tr>
<tr>
<td>1801</td>
<td>Used for Message Queuing.</td>
</tr>
<tr>
<td>1935</td>
<td>Used by Ocularis Web when connecting to Ocularis Media Server via RMTP. This is the default setting.</td>
</tr>
<tr>
<td>5432</td>
<td>Used when recording servers listen for alert socket/TCP information; some devices use TCP for sending event messages.</td>
</tr>
<tr>
<td>5544</td>
<td>Open this port on all Device Managers (DMs).</td>
</tr>
<tr>
<td>7008</td>
<td>Used by Ocularis.net (communication with video walls and push video).</td>
</tr>
<tr>
<td>7210</td>
<td>Internal port (MaxDB) - Do not open this port in your Firewall</td>
</tr>
<tr>
<td>7563</td>
<td>Used for handling PTZ camera control commands and for communication with Ocularis Client.</td>
</tr>
<tr>
<td>8090</td>
<td>Used by HTTP</td>
</tr>
<tr>
<td>8500-8600</td>
<td>Dynamic ports used for streaming video from Ocularis Media Server to Ocularis Mobile.</td>
</tr>
<tr>
<td>9000</td>
<td>Used by mobile devices to connect to the Ocularis Media Server.</td>
</tr>
<tr>
<td>9090</td>
<td>Used by SSL</td>
</tr>
<tr>
<td>9100</td>
<td>RTSP Port</td>
</tr>
<tr>
<td>60000-60008 (inbound &amp; outbound)</td>
<td>Recorder Core/DM/MDS</td>
</tr>
<tr>
<td>60021</td>
<td>SIP/VOIP</td>
</tr>
<tr>
<td>63000-63001</td>
<td>Update Service</td>
</tr>
<tr>
<td>64222</td>
<td>AV Export</td>
</tr>
<tr>
<td>60601-60724</td>
<td>LPR/Analytics/Transcoding Engine</td>
</tr>
</tbody>
</table>

**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.
Appendix B

Update Service

The Update Service is a service that will automatically check online for software patches to recording system components and download the update if it is available. Ocularis version 5.2 expands this service to include not only the automatic distribution of recorder patches but also recorder software application updates. If you have a valid StayCurrent plan, you can configure the system to upgrade your enterprise from version recorder version R7 (included with Ocularis v5.1) to recorder version R8 (included with Ocularis v5.2) automatically.

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.

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 Master 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 Master 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 Master 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 Master 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 Master Core computer).

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

This tool manages the configuration of the Update Service on the Master 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

Configure the Update Service

1. On the computer with the Update Service SVR (server component), which is by default the Master Core Server, launch the Update Service tool from the Windows menu:
   
   Start → All Programs → OnSSI → Ocularis Recorder → Ocularis Recorder UpdateServer configuration tool

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

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).
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.

**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.

**Configure A Group**

When you click ‘Configure group’, a group configuration screen appears.

![Figure 27 Group Configuration](image)

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.

---

**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.

---

**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.

**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.

**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.
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 28 Global Repository tab](image)

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 then be 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.
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 (an OnSSI server), 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 29 Server configuration tab](image)

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 50.

- **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 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 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 50.

- **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 59 and **Manually Applying Software Upgrade Files** on page 61.
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.

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 master 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 Master 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 Master 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\OnSSI\Ocularis Recorder\conf and store in a safe location.

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

**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 OnSSI StayCURRENT 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 only, these items do not apply. StayCURRENT need not be up-to-date to get software fixes.

Once these conditions are fulfilled, the software will update itself automatically from version R7 to R8 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 completed successfully.

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

**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.

**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: [http://onssi.com/ocularis-recorder-licensing/](http://onssi.com/ocularis-recorder-licensing/)

2. 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.
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).

MANUALLY CHECK FOR PATCHES USING THE UPDATE SERVICE

1. On the master core server (or server that contains the Update SVR Service), open the Ocularis Recorder Update Server configuration tool in the Windows > Start > All Programs > OnSSI > Ocularis Recorder folder.

2. Click the 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 the this patch:
   - For clients in the Default group: immediately
   - For clients in a custom group: upon the next scheduled patch time as configured
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 master core server (or server that contains the Update SVR Service), open the Ocularis Recorder Update Server configuration tool in the Windows > Start > All Programs > OnSSI > Ocularis Recorder folder.

2. Click the Server configuration tab.

![Figure 31 Updated Ocularis Recorder Update Server Configuration Tool](image)

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 32 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 you click Check for patches/updates now.
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.

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

For more information on software upgrades, contact OnSSI Technical Support.

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.
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.

Import of Patches at the Update Agent

1. After successfully exporting patches (see Global Repository on page 50), 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.

Manually Configure & Activate Update Agent(s)

The UpdateService Agent (VMS_UPDATER) is installed by default for all recorder components (except the Master 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
<?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).
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: [http://onssi.com/software-downloads/](http://onssi.com/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.

![Manually Download Recorder Patches from OnSSI.com](image)

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 master core machine)
6. Launch the **Ocularis Recorder UpdateServer configuration** tool and select the 'Server configuration' tab (1).
7. From the drop-down menu, select 'Do not search for patches on the internet or any remote location' (2).

8. Click **Save** (3).

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.

**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 free space on the installation hard drive.

1. Obtain the software upgrade files from OnSSI Technical Support.
2. Transfer the files to the server where the Update SVR Service (VMS_UPDATESVR) exists. (the default is the master core machine)
3. Launch the **Ocularis Recorder UpdateServer configuration** tool and select the 'Server configuration' tab (1).
4. From the drop-down menu, select 'Do not search for patches on the internet or any remote location' (2)
5. Click **Save** (3).
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.
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