



# Ocularis

## Media Server Installation & Administration Guide

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*Ocularis Media Server 3.0/5.3*

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#### **Legal Notice**

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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

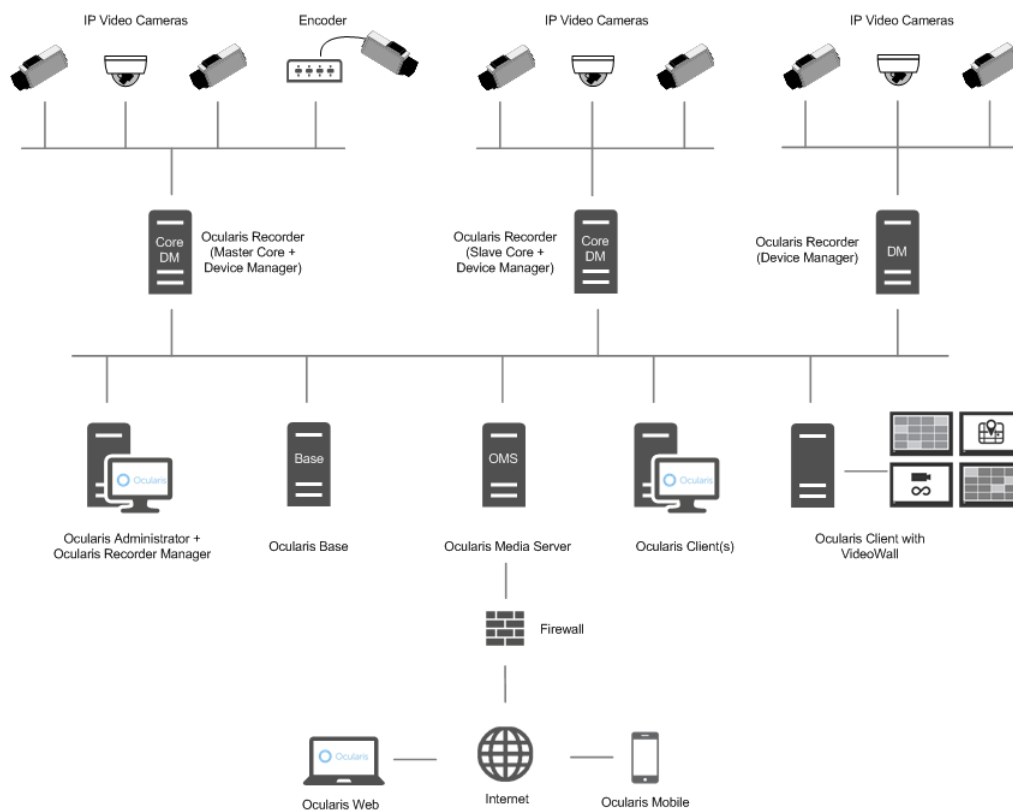
*Ocularis Media Server* brings the experience of desktop video surveillance to browsers and mobile video clients. It can deliver video over limited bandwidth networks such as 3G, 4G and broadband.

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

Ocularis 5 Mobile also allows field operators to stream video from their mobile device to Ocularis<sup>1</sup>. This allows others to view live and recorded video from personnel as it happens. Video is stored on the corresponding Ocularis Recorder.

## Ocularis Media Server Components

Components of Ocularis Media Server include a server component and client components. The Ocularis Media Server typically resides on a standalone server or PC and functions as the gateway for local and remote web and mobile users. Ocularis 5 Web is a browser based video client and Ocularis 5 Mobile is a mobile app based video client.



<sup>1</sup> This feature is currently only supported on the Android version of the mobile app.

*Figure 1 Sample Environment*

When an Ocularis user logs in with Ocularis 5 Web, they are directly connected to the Ocularis Media Server. The Ocularis Media Server relays the user credentials to the Ocularis Base. The Ocularis Base then authenticates the user and initiates a permissioned video stream between the appropriate recorder and the Ocularis Media Server. At that point, the video stream is point to point between the Ocularis Media Server and the recorder. The Ocularis Media Server provides the appropriate video stream to the client to best utilize the bandwidth and resources available to the individual clients (including 3G/4G networks).

# Specifications

## Ocularis Media Server

Ocularis Media Server runs as a service on a host / server computer. For complete hardware specifications see <http://onssi.com/hardware-recommendations/> or contact OnSSI Technical Support.

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

<b>Port</b>	<b>Description</b>
80	Used by IIS to host the Ocularis Media Server HTTP web site*
443	Used by IIS to host the Ocularis Media Server HTTPS web site
1935	Used by Ocularis 5 Web when connecting to Ocularis Media Server via RMTP. This is the default setting.
5544	Used for streaming RTSP video from Android devices; this port only needs to be open between OMS and the DMs (it does not need to be open to the internet).
8500-8600	Dynamic ports used for streaming video from Ocularis Media Server to Ocularis 5 Mobile
8090	Used by HTTP
9000	Used by mobile devices to connect to the Ocularis Media Server
9090	Used by SSL

\*All communication using HTTP is unencrypted and therefore unsecure.

Additional ports required for Ocularis Base may be found in the *Ocularis Installation and Licensing Guide*.

## Ocularis 5 Web

*Ocularis 5 Web* client uses a web browser to display live and recorded video. The following web browsers are supported:

- Microsoft Internet Explorer version 8 and higher
- Mozilla Firefox version 14.0 and higher
- Google Chrome version 21.0 and higher
- Apple Safari version 5.1.7 and higher

Adobe Flash is required as a separate installation in some browsers.

In the current version, only cameras with H.264 streams are supported with Ocularis 5 Web.

## Ocularis 5 Mobile

*Ocularis 5 Mobile* client is currently available on the following devices:

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

For Apple devices, download the app from the App Store. Requires iOS 9 or later. For Android devices, download the app from the Google Play store. Requires Android 4.4 or later.

In the current version, the following compressions are supported with Ocularis 5 Mobile: MJPEG, MxPEG, MPEG4, H.264

## **Dependencies**

An installation of Ocularis Base is currently required for Ocularis Media Server. Ocularis Media Server works with Ocularis Base versions 5.2.1 or later. Ocularis Media Server users are created and maintained in Ocularis Base. User accounts can be Basic or Active Directory users. These are the very same user accounts that are used with Ocularis. Privileges for Ocularis Media Server are also controlled within Ocularis Base.

An installation of the Ocularis Event Proxy is required for Ocularis Media Server. This component can be installed on any pc with connectivity to Ocularis Base but is typically installed on the same machine as the recording component's master core. Download and install the Ocularis Event Proxy from the Ocularis Component Download webpage located on the Base. Instructions for installation and configuration of the Ocularis Event Proxy may be found in the *Ocularis Installation and Licensing Guide*.

If you are running v4.x recorders, you need to install a corresponding v5.3 event proxy to see video from these legacy recorders. Download and install the RC-C/RC-I Event Proxy or RC-E/RC-L Event Proxy from the OnSSI website.

## **Restrictions**

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

- Stream 1 from the camera must be assigned a video classification if more than one stream is configured on the camera in the Ocularis recorder component using *Ocularis Recorder Manager*. Refer to the *Technical Notes for Ocularis 5.3* for further instructions.
- There is a maximum number of users who may be logged in concurrently of forty-eight. This is per Ocularis Media Server and applies to both Ocularis 5 Web and Ocularis 5 Mobile.
- A view with five or more panes cannot display in HD in Ocularis 5 Web. There is a vertical limit to 600 pixels per pane. In this case, if the camera does not provide a lower resolution stream, the pane will be empty and the message 'No Suitable Stream' will be displayed.
- Cameras with only one stream may not display in some views in Ocularis 5 Web. This can happen, for example, if the camera has only one stream that is set for HD. If the view has five or more panes, the video from this camera will not be displayed (see prior bullet point).

## **HTTP vs. HTTPS**

Ocularis Media Server requires the use of HTTPS. HTTPS (Hyper Text Transfer Protocol Secure) is a communications protocol for secure communication over a computer network between web servers and browsers. To employ this protocol, an SSL certificate is required. Please contact your IT department for information on your SSL certificate or how to obtain one.

## **Multiple Streams**

For cameras with more than one configured stream, Ocularis Media Server will determine which stream to deliver to the web client based on the pane size it will display in. For Ocularis 5 Mobile, it will also deliver the most suitable stream. You may select an alternate stream using the mobile app.

## Getting Started

Getting started with *Ocularis Media Server* requires these steps:

1. Install and configure the Ocularis environment. See the Ocularis documentation for installing, licensing and configuring Ocularis. This documentation is included with your software purchase or may be downloaded from <http://www.onssi.com/support/documentation>.
2. Install *Ocularis Media Server* on a dedicated server<sup>2</sup>.

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<sup>2</sup> In some cases you may install the Ocularis Media Server software on a computer that is shared with other components. Contact [support@onssi.com](mailto:support@onssi.com) or [se@onssi.com](mailto:se@onssi.com) to discuss.



## Installation of Ocularis Media Server

Ocularis Media Server software is typically installed on a dedicated server. Included in the installation is the Ocularis 5 Web client website. *Ocularis 5 Mobile* is downloaded separately.

You must uninstall old versions of Ocularis Media Server prior to installing a new version. If the installation process detects an existing version, you will be notified and prompted to uninstall the old version prior to installing the new version. See *Uninstalling Ocularis Media Server* on page 9 for more details.

The automated installation is wizard driven and easily installs all components on the same computer.

1. Download the Ocularis Media Server installation file from the Ocularis Component Downloads page located on the Base computer. .
2. On the machine where *Ocularis Media Server* is to reside, launch the executable file.  
Ocularis Media Server 3 Setup x64.exe
3. If a prior version is detected, the installation will prompt you to uninstall the older version prior to installing the new version. Click **Yes** as the older version must be uninstalled. Follow the Wizard to uninstall the software.

**Note:** In rare occasions, the removal of the older version may not work and you may be asked to uninstall the software manually. In this case, follow the steps in *Uninstalling Ocularis Media Server* on page 9.

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

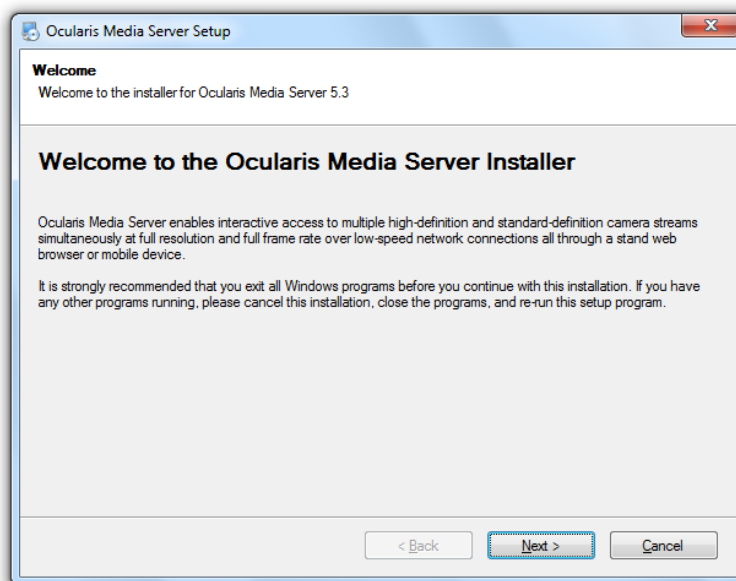


Figure 2 Ocularis Media Server Installation Wizard

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

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

C:\Program Files\OnSSI\Ocularis Media Server

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

When ready, click **Next**.

- A *Configuration* screen appears.

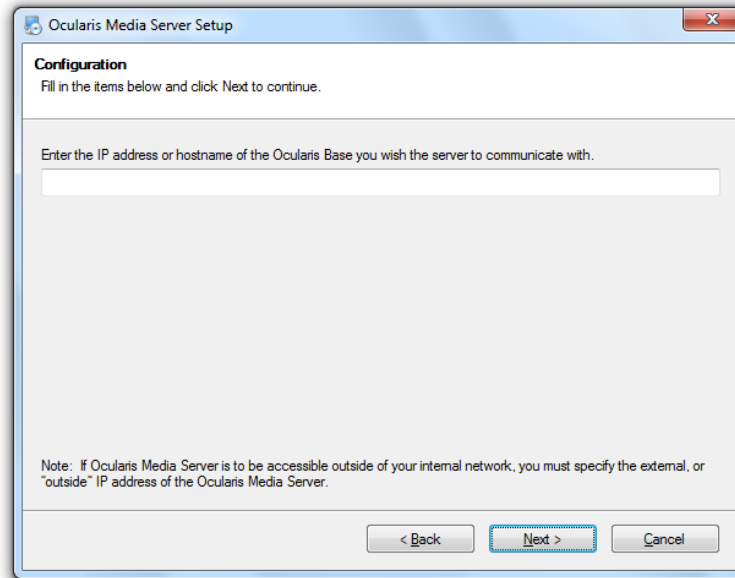


Figure 3 Configuration

- Enter the IP address or hostname of the Ocularis Base to be used with the Ocularis Media Server. Use the external or 'outside' IP address of the Ocularis Media Server if video will be accessed from outside the internal network.
  - Click **Next**.
- On the *Ready to Install* screen, prior entries are displayed for confirmation. If all settings are correct, click **Next**.  
Ocularis Media Server components are installed including Windows IIS. This may take several minutes.
  - When the installation is complete, you will receive an **Installation Successful** screen. Click **Finish**.
  - You may be asked to reboot the computer.

Upon successful installation, a shortcut is added to the desktop. This shortcut launches the default browser with the *Ocularis 5 Web* URL.



## **Uninstalling Ocularis Media Server**

Uninstalling Ocularis Media Server must be done in order to upgrade to a new version or if you need to modify the IP address assigned to the *Ocularis Media Server*. If you attempt to install a new version on top of an older version, the installation process will recognize this and prompt you to uninstall the older version for you.

Be sure that you log off Ocularis Media Server and close its browser before you begin.

1. From the Windows Start menu, select ***All Programs > OnSSI > Ocularis Media Server > Uninstall Ocularis Media Server***  
An uninstaller wizard screen appears.
2. Follow the wizard prompts to uninstall the software.

## Using Ocularis Media Server

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

- Access Ocularis 5 Web video with a browser by using the following URL:

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

Where IP\_ADDRESS\_OF\_OMS is the address of the Ocularis Media Server

If you see warning's about the website's security certificate, you may bypass and continue to the website until your IT department installs an SSL certificate.

- Use an iPad tablet, iPhone or Android mobile device to access video on the go. Download the OnSSI mobile app, *Oculari 5s Mobile*, from Apple's App Store or Google's Play Store.

### **Logging In**

Use your normal Ocularis username and password to gain access to video.