Administrator manual

MOBOTIX HUB DLNA Server 2023 R2

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Contents

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Overview

MOBOTIX HUB DLNA Server (explained)

DLNA (Digital Living Network Alliance) is a standard for connecting multimedia devices. Electronic manufactures get their products DLNA certified to ensure interoperability between different vendors and devices and thereby enable them to distribute video content.

Public displays and TVs are often DLNA certified and connected to a network. They are able to scan the network for media content, connect to the device, and request a media stream to their built-in media player. MOBOTIX HUB DLNA Server can be discovered by certain DLNA certified devices and deliver live video streams from selected cameras to DLNA certified devices with a media player.

> The DLNA devices have a live video delay of 1-10 seconds. This is caused by different buffer sizes in the devices.

MOBOTIX HUB DLNA Server must be connected to the same network as the MOBOTIX HUB system and the DLNA device must be connected to the same network as MOBOTIX HUB DLNA Server.

MOBOTIX HUB DLNA Server system flow

The MOBOTIX HUB DLNA Server is comprised of the following components:

- MOBOTIX HUB DLNA Server
- MOBOTIX HUB DLNA Server 64-bit admin plug-in for the Management Client

The following illustration shows a high-level view of the interoperability between a DLNA device and MOBOTIX HUB DLNA Server in the MOBOTIX HUB system.
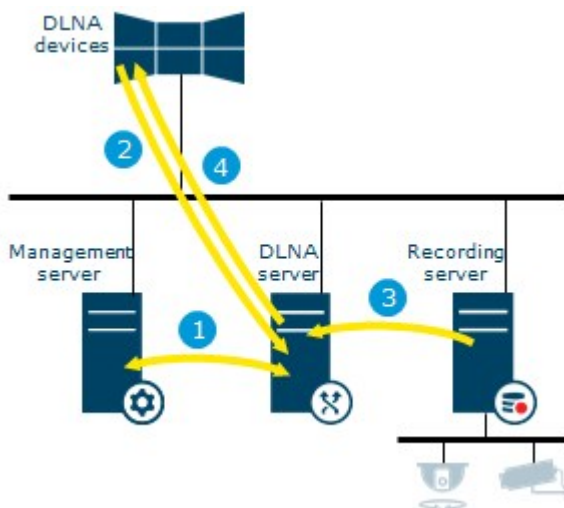
Overview

1. During start up of the MOBOTIX HUB DLNA Server service, the MOBOTIX HUB DLNA Server connects to the management server to authorize itself with the provided credentials. After authorization, the MOBOTIX HUB DLNA Server starts and is ready to send H.264 video streams from the cameras to the DLNA devices.

2. A DLNA device connects to the MOBOTIX HUB system via the MOBOTIX HUB DLNA Server and requests a live camera video stream. To do this, the DLNA device needs the IP address or domain name (domain/host name) of the server where MOBOTIX HUB DLNA Server is installed, and the DLNA port number. This is done automatically by UPnP protocol.

3. MOBOTIX HUB DLNA Server retrieves the requested camera video stream from the recording server.

4. MOBOTIX HUB DLNA Server sends the live video stream from the requested camera via HTTP streaming to the DLNA device.

> Only H.264 encoded camera streams is supported. If a camera supports multiple streams, only the default stream is sent.

Licensing

DLNA licensing

MOBOTIX HUB DLNA Server does not require additional licenses. You can download and install the software for free from the management server's administrative installation web page.

Requirements and considerations

Before you install MOBOTIX HUB DLNA Server

When you install MOBOTIX HUB DLNA Server, you install a server and a plug-in for the Management Client. These components enables you to add DLNA channels and provide video to DLNA devices.

You can install and add multiple DLNA servers to your MOBOTIX HUB system. Multiple DLNA devices are able to connect to each DLNA server, so this increases the load on the network, and can impact performance. To reduce the overall use of network resources on the computer that runs the management server, install MOBOTIX HUB DLNA Server on a separate computer.

> Installation requires a restart of Event Server service and Management Client

MOBOTIX recommends that you go through the preparation described in the next sections, before you start the actual installation.

MOBOTIX HUB DLNA Server requirements

The computer where you want to install the MOBOTIX HUB DLNA Server component has these requirements:

- Connected to the same network as the MOBOTIX HUB system

- Access to the management server

- Microsoft$^{®}$ .NET Framework 4.7 or higher installed

For information about the system requirements for the various VMS applications and system components, go to the MOBOTIX website (https://www.mobotix.com/en/media/4821).

Camera settings

Verify the recommended camera settings in the Management Client:

- Frames per second: **25** (or more)

- Maximum frames between keyframes: **25** (same value as frames per second)

- Resolution: **1920x1080**

- Bit rate control mode: **Constant bit rate**

What's installed

During installation, the following components are installed:

Requirements and considerations

- MOBOTIX HUB DLNA Server Admin Plug-in

- MOBOTIX HUB DLNA Server which includes:

  - MOBOTIX HUB DLNA Server Manager that is running and accessible from the notification area on the server with MOBOTIX HUB DLNA Server installed

  - MOBOTIX HUB DLNA Server service

Installation also does the following:

- Registers and starts the MOBOTIX HUB DLNA Server service

- Starts the X MOBOTIX HUB DLNA Server Manager, which is available in the Windows notification area on the server where the MOBOTIX HUB DLNA Server is installed

> The plug-in is available on the **Servers** node in the Management Client. This happens automatically when you use a **Typical** installation method. If you use a **Custom** installation method, you can install it at a later stage of the installation.

Installation

Install MOBOTIX HUB DLNA Server

To access the installation web page:

1. Log into the computer where you want to install the MOBOTIX HUB DLNA Server and open an Internet browser.

2. Enter the following URL in your browser: *http://[management server address]/installation/admin*

   [management server address] is the IP address or host name of the management server.

3. Select **All Languages** below the **DLNA Server installer**.

4. Click **Save** to save the installer somewhere appropriately and run it from here or click **Run** to run it directly from the web page.

Run the installer:

1. Accept all warnings and select the language you want to use. Click **Continue**.

2. Read and accept the license agreement. Click **Continue**.

3. Select the installation type, as follows:

   - In a single-computer system select **Typical**

   - In a distributed system select **Custom**

Typical installation

1. To install all MOBOTIX HUB DLNA Server components on one computer, and apply default settings, click **Typical**.

   - Verify that the login as either **Network Service** or a domain user account with **User name** and **Password** is correct

   - Click **Continue**

     > ✎ To change or edit the service account credentials at a later stage, you will have to reinstall MOBOTIX HUB DLNA Server.

2. Specify the URL or IP address, and the port number of the primary management server. The default port is 80. If you omit the port number, the system will use port 80. Then, click **Continue**.

3. Select the file location and the product language, and then click **Install**.

   When the installation is complete, a list of successfully installed components appears. Click **Close**.

4. Restart Event Server service and then the Management Client.

Custom installation

1. To install MOBOTIX HUB DLNA Server components on separate computers, click **Custom**.

2. To install the server, select the **MOBOTIX HUB DLNA Server** checkbox, and then click **Continue**.

3. Establish a connection to the management server by specifying the following:

   - Verify that the login as either **Network Service** or a domain user account with **User name** and **Password** is correct. Then click **Continue**

     > ✎ To change or edit the service account credentials at a later stage, you will have to reinstall MOBOTIX HUB DLNA Server.

   - Specify the URL or IP address, and the port number of the primary management server, and the connection ports for communication with the MOBOTIX HUB DLNA Server:

     - The default port of the management server is 80. If you omit the port number, the system will use port 80

     - The default port numbers are: DLNA video **9200** and DLNA device **9100**

   Click **Continue**.

4. Select the file location and the product language, and then click **Install**.

   When the installation is complete, a list of successfully installed components appears.

5. Click **Close**, and then install the MOBOTIX HUB DLNA Server plug-in on the computer where the Management Client is installed. To install the plug-in, run the installer again on that computer, select **Custom** and select the plug-in.

6. Restart the Event Server service and then the Management Client.

Configuration

Configuring MOBOTIX HUB DLNA Server

After you installed MOBOTIX HUB DLNA Server, the MOBOTIX HUB DLNA Server service is running and the DLNA Server Manager tray icon in the notification area turns green. The next step is to make cameras available for MOBOTIX HUB DLNA Server.

Configure settings for a DLNA server

To provide a DLNA device access to your MOBOTIX HUB VMS, follow these steps:

1. Open the Management Client.

2. Expand **Servers**, select **DLNA Servers**, and then select the DLNA server you just added.
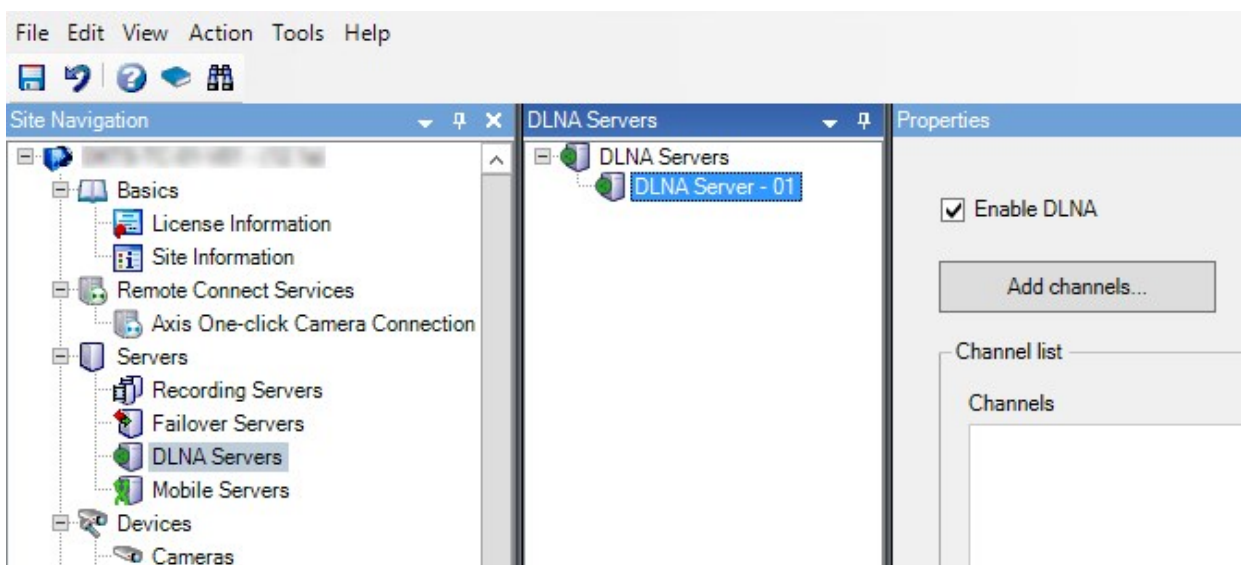
3. To rename the server right-click the DLNA Server and select **Rename**. The name you enter is the name that DLNA devices discover during a scan for media available content.

4. On the **Properties** tab, the **Enable DLNA** check box is selected by default. Clear the check box if you want to disable DLNA availability.

Add channels

The DLNA devices discovers the channels defined in your MOBOTIX HUB system. There are different types of DLNA channels you can assign a camera to:

- Single camera: One camera per channel

- Carousel: Multiple cameras per channel. The channel switches between the selected cameras in a defined time interval

- Rule-based: One or multiple cameras per channel. Cameras are set to or removed from the rule-based channel based on events

> To add a rule-based channel, you must install the DLNA Server on the same machine where the Event Server is installed. After the installation is complete, you must restart the Event Server.

> After creating the channel, you need to create new rules in **Rules** to show cameras on this channel.

To select the cameras available for DLNA devices, follow these steps:

1. Click the **Add channels** button.

2. Select a channel type.

3. Click the server and camera groups to expand them and select the cameras you want.

To adjust the duration and order of each camera in a carousel channel:

1. Select a camera and adjust the time.

2. Use the arrows in the top of the list to change the order of the carousel.

To set the duration of the camera assignment to a rule-based channels:

1. Select the **Remove camera from channel after** check box.

2. Set the time.

The added channel types appear in the **Channel list**.

Managing MOBOTIX HUB DLNA Server

After you have configured MOBOTIX HUB DLNA Server, you can monitor the service and change configuration settings in several ways.

Status of the MOBOTIX HUB DLNA Server service

To view the status of the MOBOTIX HUB DLNA Server service, follow these steps.

On the computer where the MOBOTIX HUB DLNA Server is installed, look in the notification area. The MOBOTIX HUB DLNA Server Manager icon indicates the status of the MOBOTIX HUB DLNA Server service with the following colors:

- Green: Running

- Yellow: Starting or stopping

- Red: Stopped

If it is stopped, right-click the icon and select **Start MOBOTIX HUB DLNA Server**.

If you change the IP address or the port numbers of the management server, you must update this information for MOBOTIX HUB DLNA Server. Port numbers for the MOBOTIX HUB DLNA Server can also be changed.

Change management server address

To change the management server address, follow these steps:

1. On the computer where the MOBOTIX HUB DLNA Server service is installed, right-click the MOBOTIX HUB DLNA Server Manager tray icon and select **Management server address**.
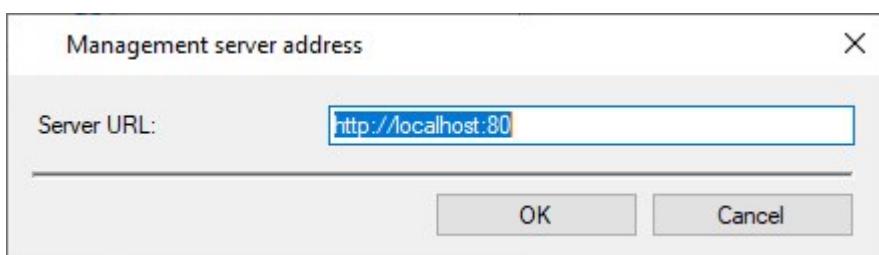
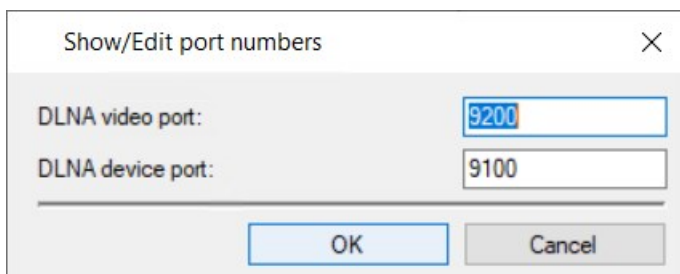2. Specify the new information and click **OK**.

> You must use the domain name or the IP address of the server where the management server is installed.

The MOBOTIX HUB DLNA Server service restarts and the tray icon turns green.

Edit port numbers

To change the MOBOTIX HUB DLNA Server port numbers, follow these steps:

1. On the computer where the MOBOTIX HUB DLNA Server service is installed, right-click the MOBOTIX HUB DLNA Server Manager tray icon, and select **Show/edit port numbers**.

2. Specify the new information, and then click **OK**.

The MOBOTIX HUB DLNA Server service restarts and the tray icon turns green.

Operation

Using DLNA certified device to view video streams

To start watching live video from your MOBOTIX HUB system on your public displays or TV, follow these steps:

1. Make sure your device is DLNA certified and connected to the network with MOBOTIX HUB DLNA Server.

2. Scan the network and connect to MOBOTIX HUB DLNA Server when it has been discovered.

   A list of the different channels appears.

3. Connect to the channel that you want to show video from.

4. Verify that the selected channel shows video.

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