

Application Note

March 2014

SnapServer DX-Series MOBOTIX MxRemotePreview Configuration



Summary

This application note describes how to configure MOBOTIX MxRemotePreview on a SnapServer DX.

Introduction

The MOBOTIX MxRemotePreview on the SnapServer has been developed to overcome one problem when using low bandwidth connections (such as when accessing recordings in a remote location with a slow DSL or UTMS/3G connection). In such a case, MxControlCenter retrieves the original (stored) video sequences, but since they are too large for the bandwidth, the images are transferred too slowly, making video searches nearly impossible. MxRemotePreview helps to overcome this problem by reducing (“recoding”) the image size, quality, and other parameters on-the-fly without changing the stored recordings. Instead of getting the images via the camera or directly from the SnapServer, MxControlCenter gets the “recoded” video sequences from the MxRemotePreview SnapServer to accelerate image retrieval.

The MOBOTIX MxRemotePreview is included with SnapServer GOS 7.2.126 and higher.

Required Information, Tools, and Files

Before you begin these procedures, the following information, tools, and files are required.

Prerequisites

- Prior to performing procedures explained in this document, ensure that you have the following setup, general terminology, and understanding of using the MOBOTIX camera and supporting software with the SnapServer. A MOBOTIX IP network camera is installed and configured. Refer to the following website for specific details of supported cameras and configurations.
<http://www.mobotix.com>.
- The MOBOTIX MxControlCenter (MxCC) software is installed. This software is a comprehensive video management application specially designed to work with MOBOTIX cameras and local or remote video storage archives such as SnapServer systems. MxControlCenter software can be downloaded from the MOBOTIX website - it is free of charge. MOBOTIX MxControlCenter is a free Windows application that displays and manages multiple MOBOTIX cameras. Additional detailed information about using the SnapServer and MxCC can be found in the *Overland Storage MOBOTIX White Paper* and *Configuring MOBOTIX Cameras with Overland SnapServer Application Note*.
- The SnapServer DX has already been installed and configured, for more information about basic configuration, please refer to the user guide that came with it. The SnapServer NAS, being a cross platform Network Storage File Server, can provide storage in several native formats. The SnapServer is capable of two key protocols supported and used by the MOBOTIX Cameras, which are CIFS/SMB (Microsoft) and NFS (UNIX/Linux).

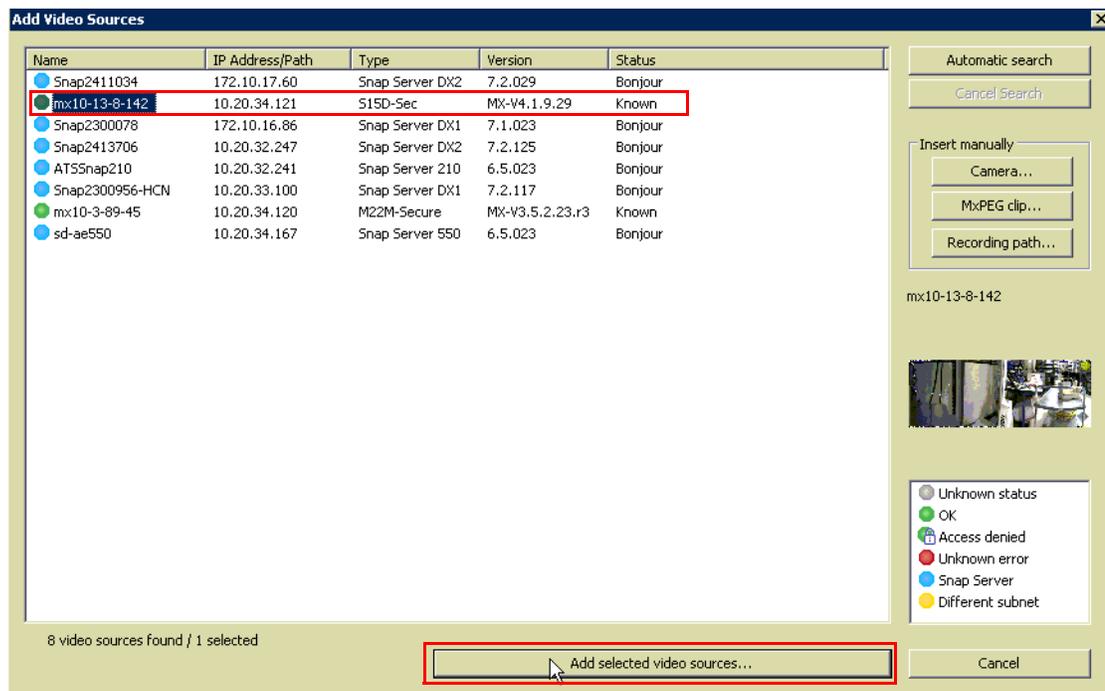
Versions

The test environments used in this document are as follows:

- SnapServer DX GOS 7.2.126 or higher
- MOBOTIX MxControl Center (MxCC) software version 2.5.0.2
- MOBOTIX M22M-Secure Video Camera software version MX-V3.5.2.23.r3
- MOBOTIX S15D-Secure Video Camera software version MX-V4.1.9.29
- Windows Server 2008R2x64 SP1

Discovering MOBOTIX Cameras and SnapServers

1. When you run the MxControlCenter for the first time, the **Add Video Sources** dialog opens and automatically scans the network for cameras and SnapServers.
2. From the list of found sources, select the appropriate **SnapServer system** and **MOBOTIX camera** to configure.



3. Click **Add selected video sources**.
4. When the **Create New Layout** dialog box appears:

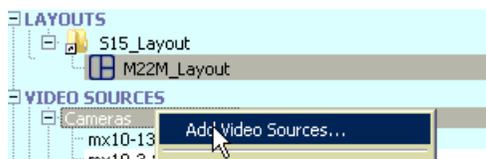


- a. Select **Generate new grid layout for selected video sources**.
- b. Provide a layout **Name**.
- c. Click **OK**.

The following screen appears with the configured cameras and storage devices listed in the left pane:



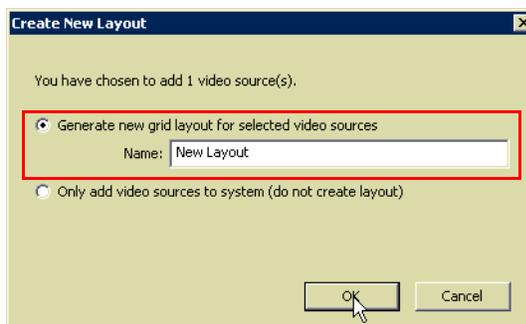
5. Additional cameras and SnapServers can be added to the current grid layout:
 - a. Right-click **VIDEO SOURCES** and select **Add Video Sources**.



- b. Select the appropriate **camera**, and click **Add selected video sources**.

Name	IP Address/Path	Type	Version	Status
Snap2411034	172.10.17.60	Snap Server DX2	7.2.029	Bonjour
mx10-13-8-142	10.20.34.121	S15D-Sec	MX-V4.1.9.29	Known

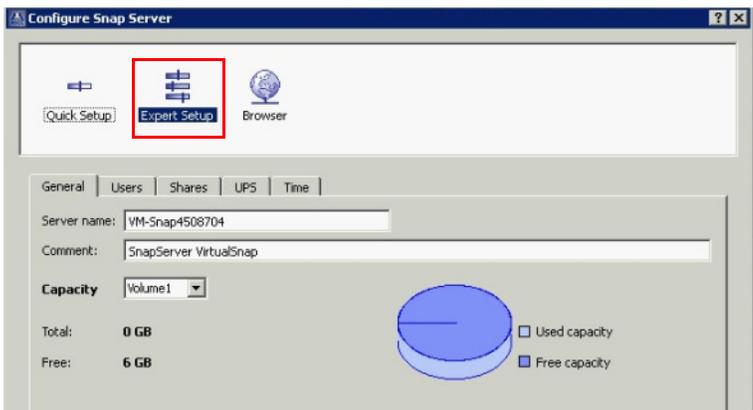
- c. In the **Create New Layout** dialog box, select **Generate new grid layout for selected video sources** and click **OK**.



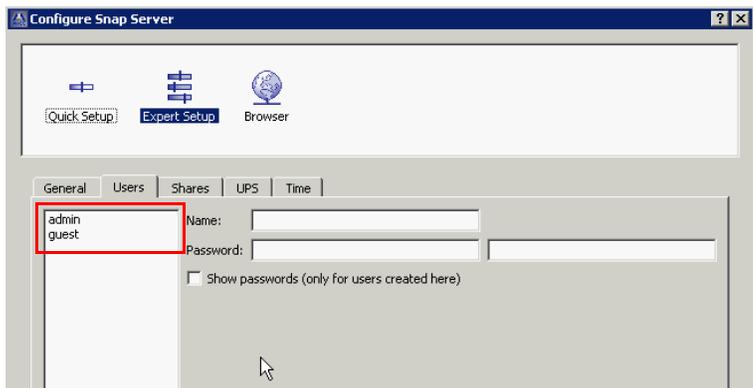
- d. Right-click the SnapServer **name**, and select **Configure**.



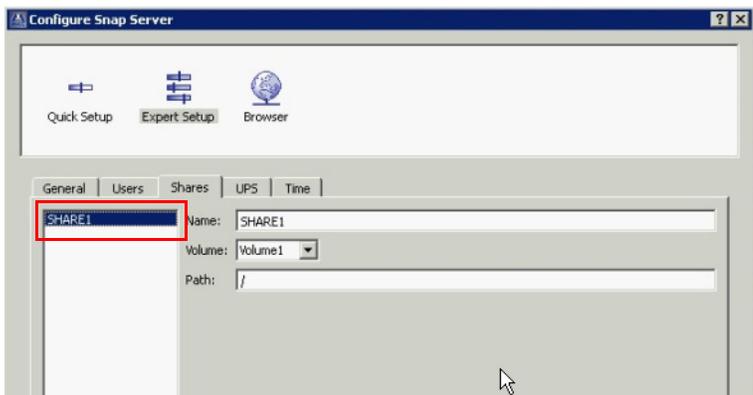
- e. From the **Configure SnapServer** dialog box, select **Expert Setup** and verify the **General** details.



- f. Switch to the **Users** tab and verify the **users**.
The discovered SnapServer user accounts are shown.



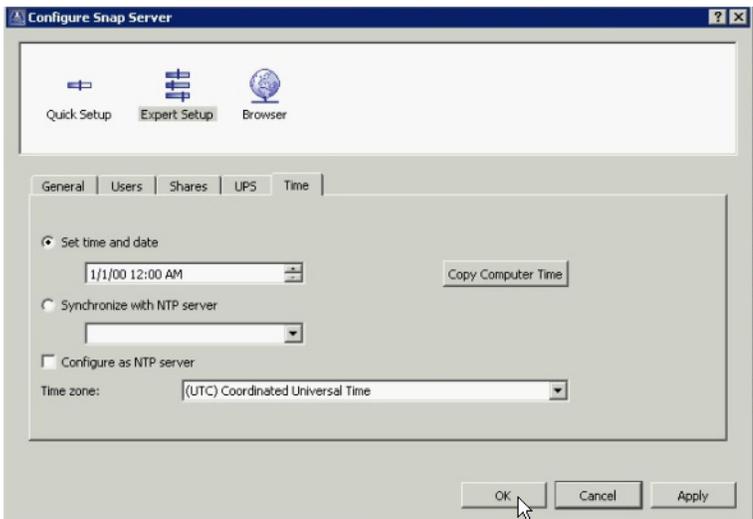
- g. Switch to the **Shares** tab and select the **required share** that will be used for video storage.
SHARE1 is the default SnapServer share name.



- h. Verify the **details** under the remaining tabs (**UPS** and **Time**).

NOTE: The **OK** button in the **Configure SnapServer** dialog box is enabled **ONLY** after reviewing details under **ALL** the tabs.

- i. Click OK.

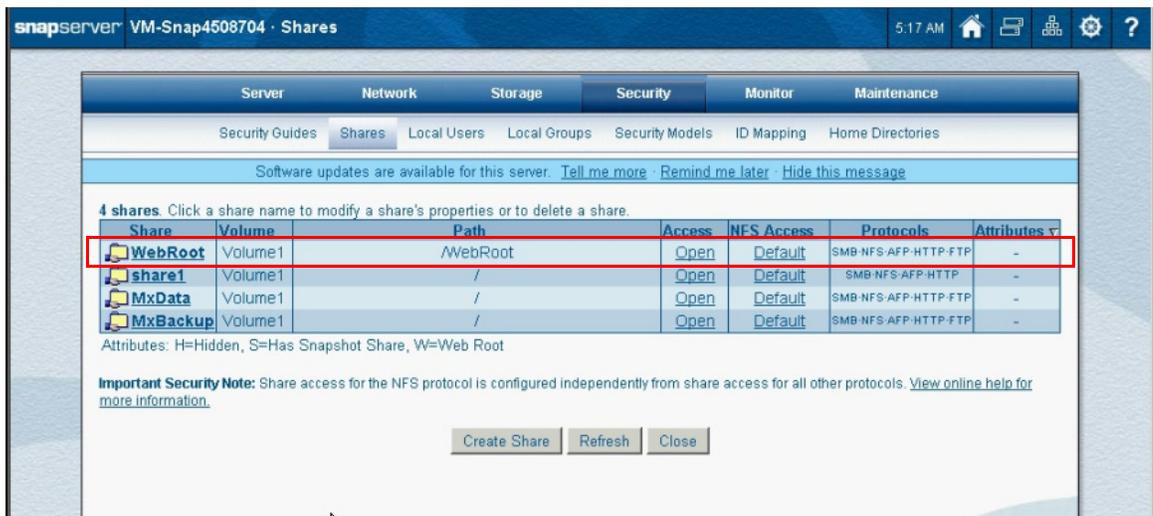


For more details on how to configure cameras and the SnapServer, access recordings, and verify events, refer to the document *An NAS Configuring MOBOTIX*.

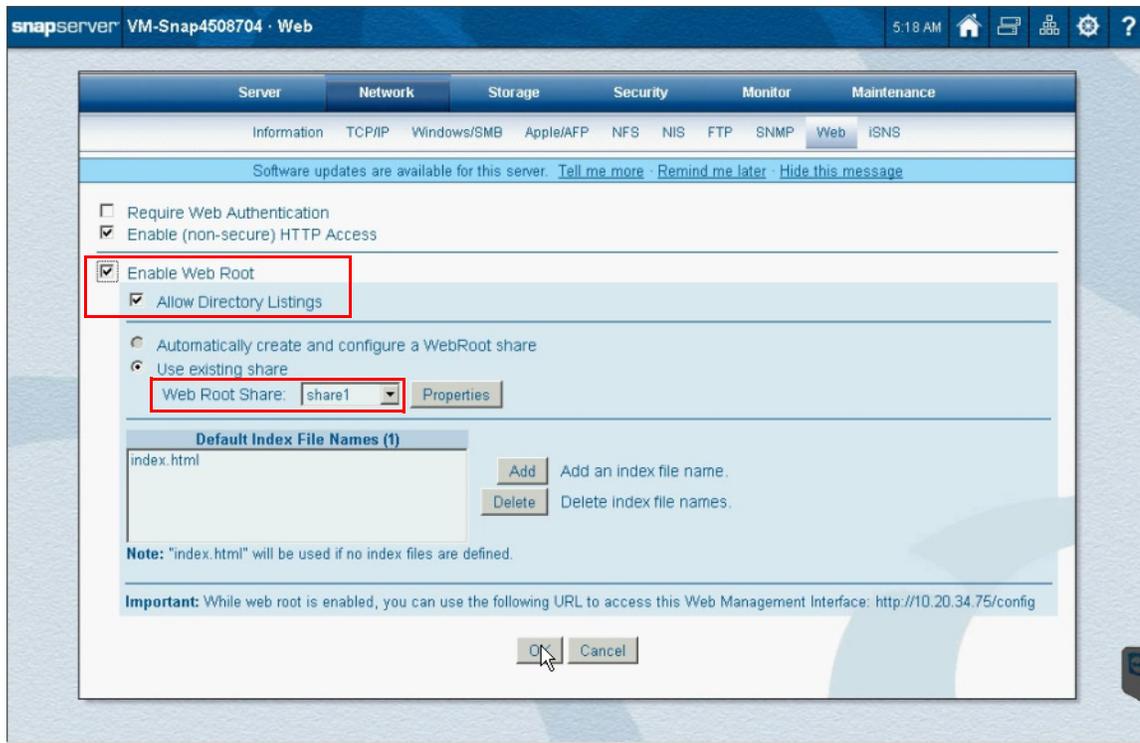
MxRemotePreview Setup and Configuration

Use the following procedure in order to setup and configure MxRemotePreview:

1. Setup the SnapServer with either **DynamicRAID** or **Traditional RAID**, and select the **Volume** and **Share** options that will be used to store the camera images.
2. Setup the cameras to store images on the SnapServer by enabling **Web Root**:



- a. Navigate to **Network > Web**.
- b. Select **Enable Web Root** and **Allow Directory Listings**.
- c. Under **Use existing share**, select the share for **Web Root Share**.



- d. Click **OK**.
The Web Root is enabled as displayed.



- 3. Connect to the SnapServer via **SSH** and login with the SnapServer **Admin** credentials. You can enable or disable the **MxRemotePreview** feature by using the following API commands that are used in conjunction with MxControlCenter:

- `mxpreview on`
- `mxpreview off`

```
[VM-Snap4508704]>mxpreview on
[VM-Snap4508704]>mxpreview status
enable=yes
[VM-Snap4508704]>mxpreview off
[VM-Snap4508704]>mxpreview status
enable=no
[VM-Snap4508704]>|
```

4. Enable the **mxpreview** feature.
Once it is turned on, you can test the **MxRemotePreview** functionalities.

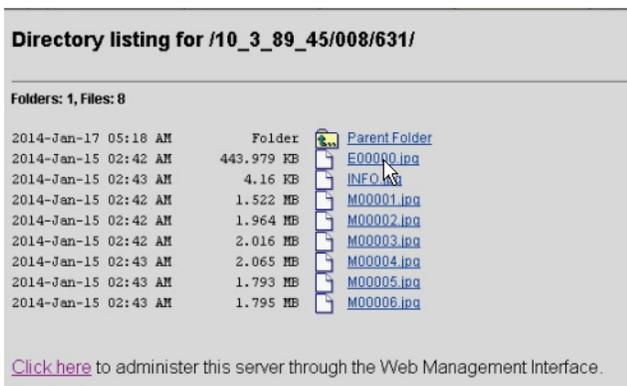
Testing the SnapServer with MxRemotePreview

Testing can be done in either CGI mode or using the MxControlCenter GUI.

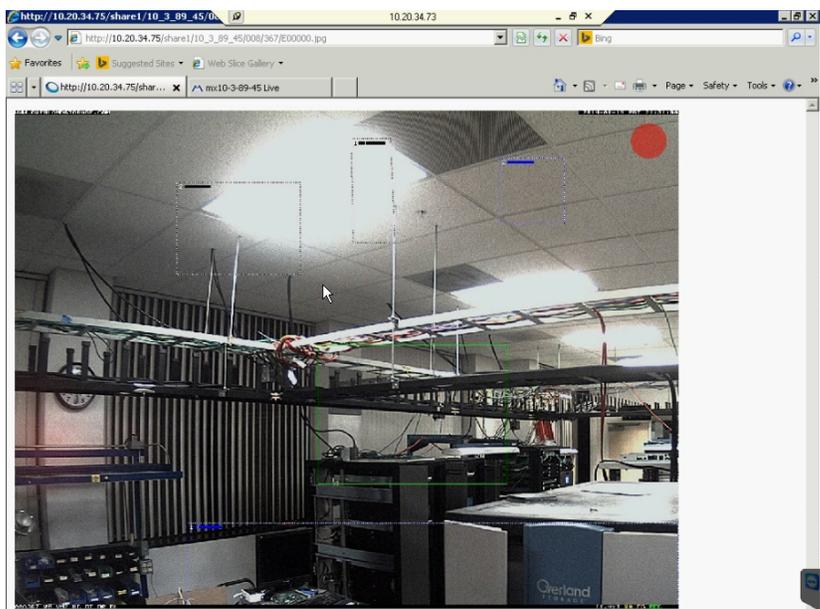
Using the CGI mode

Use the following procedure to test the CGI module in the browser:

1. In a web browser, enter the **IP Address** of the SnapServer and press **Enter**.
This will list the folders and files on the SnapServer share.
2. Navigate in the folder links to the **JPG files folder**.

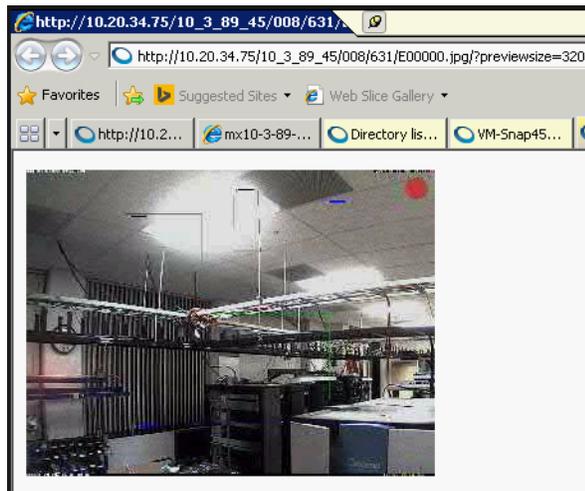


3. Click the **E00000.jpg** image file link to view it.



4. Append the following attributes to the address bar and **Enter**:
?&previewsize=320x240&quality=20

The change in the image resolution is displayed indicating that the CGI module is working properly.

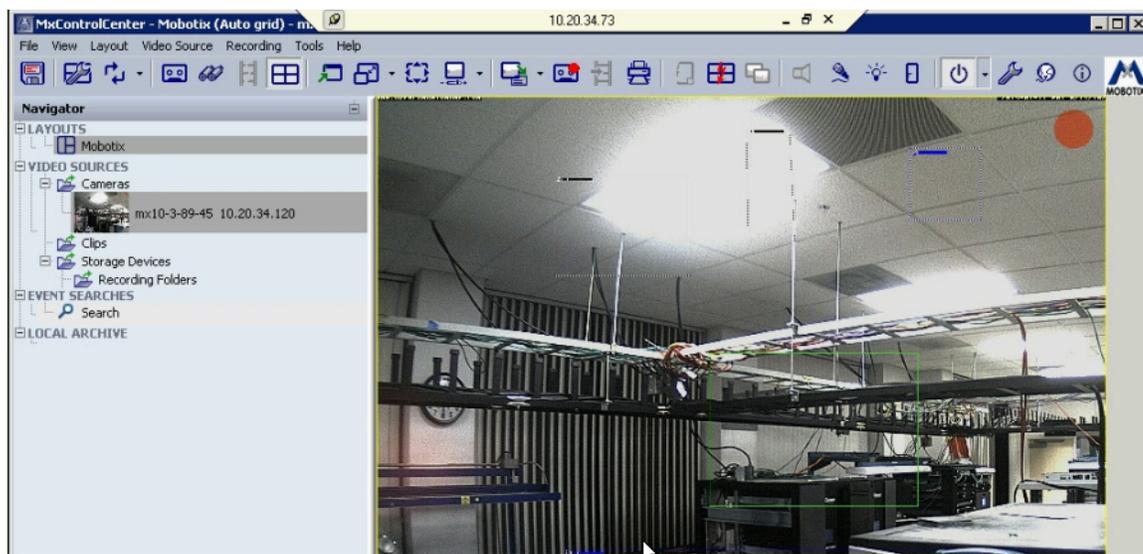


Using the MxControlCenter GUI

Mxpreview can also be configured using the GUI. Use the following steps to configure it using the MxControlCenter (**MxCC**):

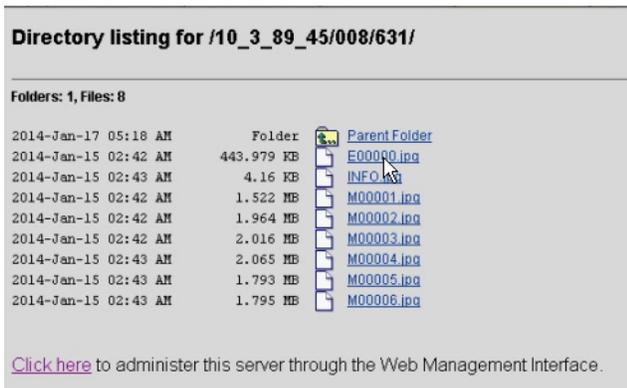
1. Turn on the **mxpreview** feature in SnapServer.
 - a. Connect to the SnapServer via **SSH** and login with the SnapServer **Admin** credentials.
 - b. Enable the MxRemotePreview feature with this command:


```
mxpreview on
```
2. Open the **MxControlCenter** console.
3. Navigate to **C:\MxControlCenter_2.5.0.2_x64\MxCC2.5.0.2x64** and double-click **MxCC.exe**.

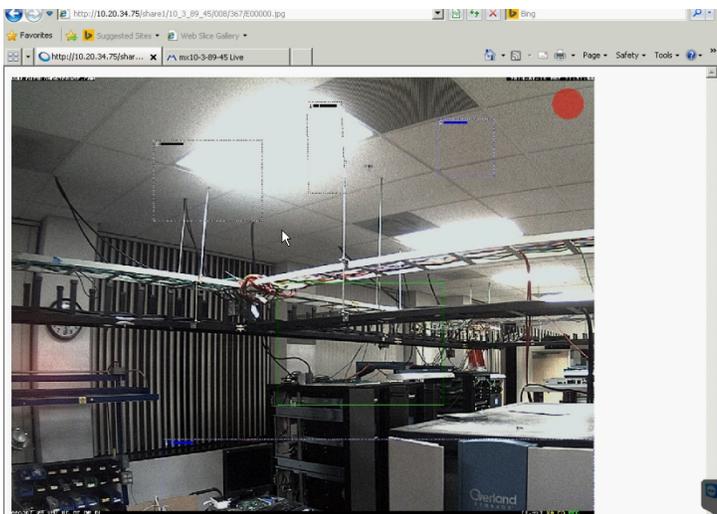


4. In a web browser, enter the **IP Address** of the SnapServer and press **Enter**.

5. Navigate in the folder links to the **JPG** files folder.

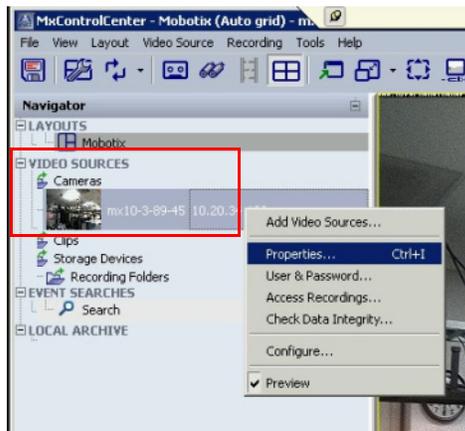


6. Click the **E00000.jpg** image file link to view it.

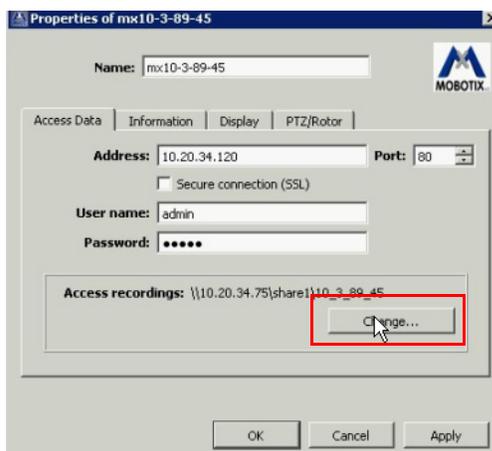


7. Perform the following steps for configuration:

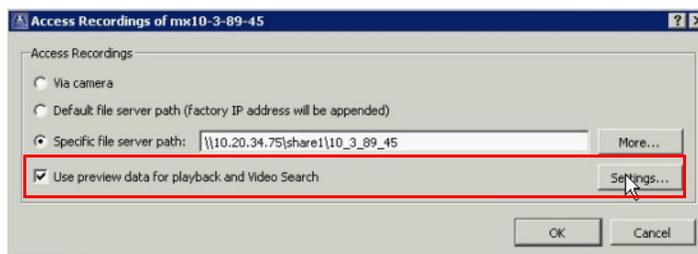
a. In MxCC, right-click **Cameras** under **VIDEO SOURCES** and select **Properties**.



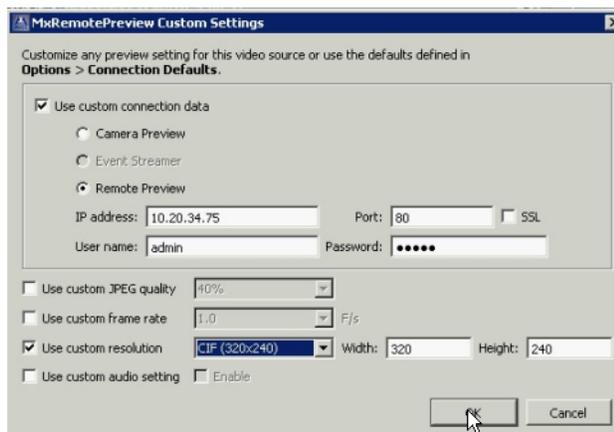
b. In the **Properties** dialog, click **Change**.



c. In the **Access Recordings** dialog box, click **Use preview data for playback and Video Search** feature, and then click **Settings**.

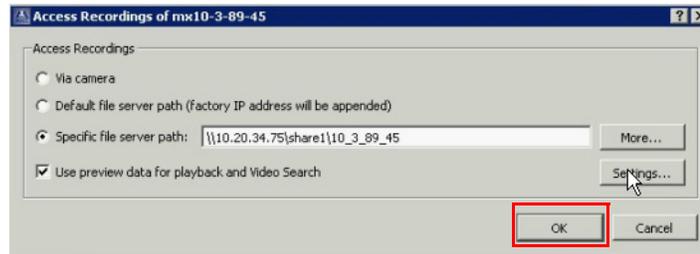


d. To configure **MxRemotePreview Custom Settings**, provide the following details:

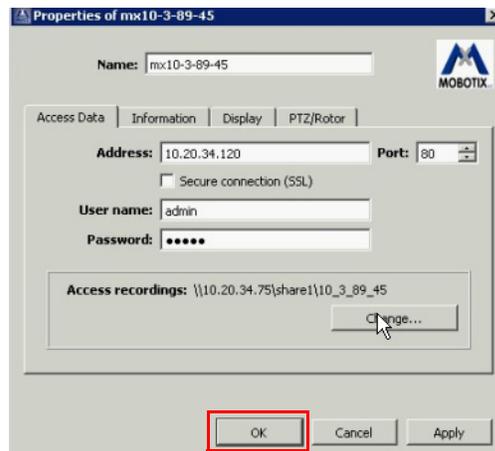


- Check the **Use custom connection data** box.
- Select **Remote Preview**.
- Provide the **IP address** of the SnapServer.
- Provide the Admin **User Name** and **Password** for the SnapServer.
- Check the **Use custom resolution** box.
- Select the appropriate **Width** and **Height** for the image.
- Click **OK**.

8. At the **Access Recordings** dialog box, click **OK**.



9. At the **Properties** dialog box, click **OK**.



10. Verify the **resolution** of the image has changed:

- a. In a web browser, enter the **IP Address** of the SnapServer and press **Enter**.
- b. Navigate in the folder links to the **JPG files folder**.
- c. Click the **E00000.jpg** image file link to view it.

