

Overview

The SVSI NMX-NVR-N6123 Network Video Recorder is designed to record over 400 hours of video-over-IP stream. The unit can record from any N-Series Encoder and uses any Decoder of that same N-Series for playback. Recordings can be converted to MP4 files for easy transfer to other systems.

Note: With the exception of the N3000 Series, you can also convert streams to MOV files.

The N6123 recording and playback durations reflect the compression capabilities of the Encoder/Decoder used. For example, the economical N1000 Series is an in-room solution and offers no compression, while the N3000 Series provides H.264 advanced video compression.



FIG. 1 N6123 NVR

Product Specifications	
Models Available:	NMX-NVR-N6123
Power Requirements:	120 Volt AC power input
Dimensions (HWD):	3.5"(H) x 17.25"(W) x 15.5"(D) (8.9 x 43.8 x 39.4 cm)
Weight:	16 lbs (7.25 kg)
Certifications:	FCC, CE, and NTRL
Environmental:	Temperature: 32° to 104°F (0° to 40°C) Humidity: 10% to 90% RH (non-condensing)
Mounting Options:	Stand alone or rack mount (mounting ears included in shipment)

Establishing Connection

Before using your N6123 unit, it must be configured using the free N-Able device management software. However, you will not be able to configure units until they are in the same subnet as the host computer. Depending on the model, N-Series devices are shipped in either **DHCP** mode or **Auto-IP** mode with a default IP address of 169.254.xxx.xxx. The sample steps below show how the required changes (to the host computer's IP settings) are made in a Windows environment.

Steps for IP address configuration:

- From the **Control Panel > Network and Internet** dialog box, select **Network and Sharing Center**.
- Select **Change adapter settings**.
- Select the wired interface connected to your AV network.
- Click the **Properties** button.
- Scroll down in the list to the **Internet Protocol Version 4 (TCP/IPv4)** option. Highlight it and click the **Properties** button.
- Enable the **Use the following IP address** option, and enter the static IP address provided to you by your network administrator.

If the computer does not need Internet access, you can simply enter a unique 169.254.xxx.xxx IP address with a 255.255.0.0 Subnet mask. Please contact your network administrator if you are unsure of how to configure the existing interface. If the computer has a statically-assigned IP address, click on the Advanced button. Then click Add to enter a unique 169.254.xxx.xxx address with a subnet of 255.255.0.0.

Steps for auto discovering devices on the network:

- Use the host computer to download and install the latest version of N-Able: PC version - <http://www.amx.com/products/N-ABLE-PC.asp> Mac version - <http://www.amx.com/products/N-ABLE-MAC.asp>
- Attach your N6123 unit(s) to the layer-3 network switch.
- Disable the wireless adapter on your computer (it must be hard-wired to the switch).
- Connect the host computer to the layer-3 network switch.
- Open the N-Able application.

If all devices do not appear automatically, click the **Auto Discover** button on the **Unit Management** tab. This issues a broadcast command that will discover all units even if they are not in the same IP subnet.

Logging in Using N-Able Software

Once the host IP address is configured properly, you can view all discovered units using the N-Able software. Access the N6123 units from the following tabs:

- Unit Management** tab - **Network Video Recorder** is listed in the **Type** field.
- Video Matrix** tab - Depending on the **NVR Mode** setting (pointed out in Step 2 of FIG. 2) N6123 units are found on the **N1000**, **N2000**, or **N3000** sub-tab of the **Video Matrix**.

Accessing the NVR's Settings Page

Double-click the unit's name (in one of the lists mentioned above) to view its control page. If prompted, enter **admin** and **password** for the default username and password. Once logged in, you can change the username and password (using the options on the unit's **Settings** page).

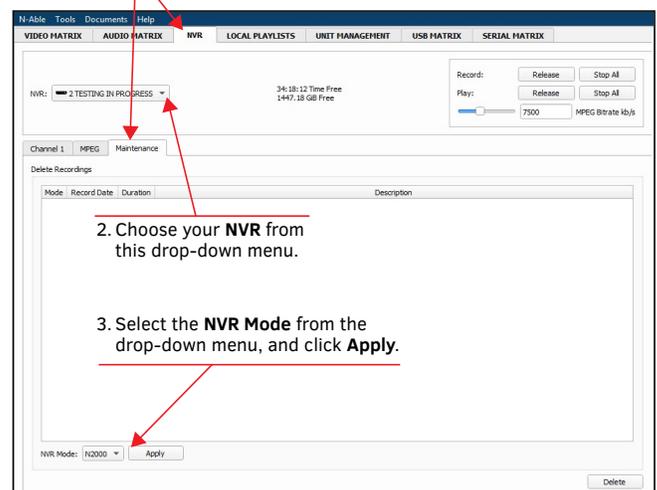
*NOTE: If you would like for N-Able to support auto-login to your units, make sure N-Able's **Device Auto-login** settings match the unit's username and password (by selecting **N-Able > Settings** from the N-Able tool bar).*

NOTE: N6123 units may force HTTPS connections, so your web browser may give you a security warning. N-Able on Windows will ask you to download OpenSSL for Windows to connect HTTPS.

Starting Recordings

Follow the steps given in FIG. 2 to record using the NVR.

- In N-Able, select **NVR > Maintenance**.



- Select the **Channel** sub-tab.

- Use the **Record Vid** drop-down list(s) to choose the source(s) for your recording. Enter a **Description** for your recording, **Time** length, etc.

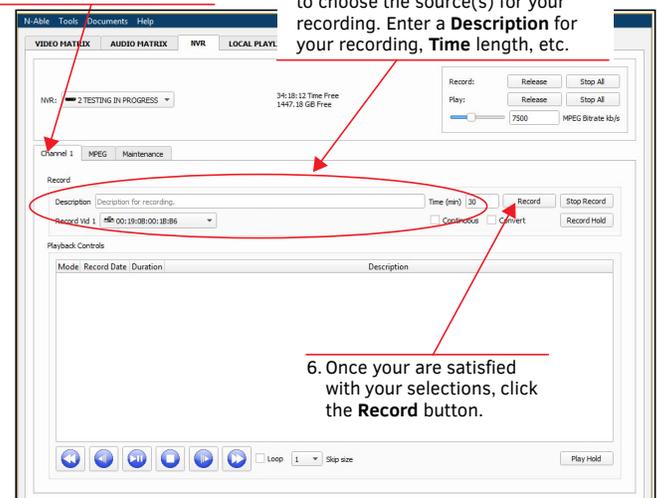


FIG. 2 RECORDING USING THE NVR

Additional Things to Consider When Recording

- If you enable the **Convert** checkbox (shown previously in FIG. 2) before you begin the recording, it will automatically convert to an MP4 or MOV file once complete. To change modes, use the **Conversion Mode** drop-down box on the NVR's **Settings** page (factory default is **MP4**). This is shown below in FIG. 3.
- N3000 streams will not convert to MOV files. If **MOV** is selected as the **Conversion Mode** when recording N3000 streams, the NVR will automatically create MP4 files instead.
- To adjust the audio stream being recorded, use the **Aud** field on the NVR's **Settings** page (also shown in FIG. 3).

Choose what **Conversion Mode** you want to use (**MOV** or **MP4**).

Set **Aud** to 0 to record the audio from the video stream. You can enter a different stream number if your audio source differs from your video source.

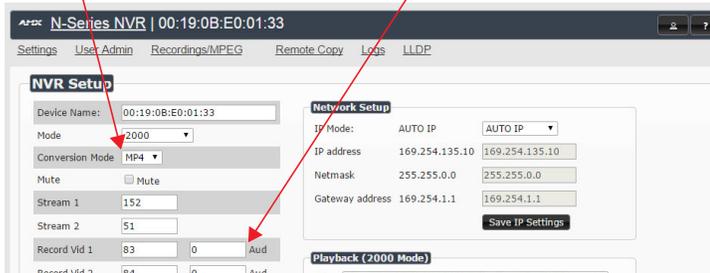


FIG. 3 CHOOSING CONVERSION MODE/SETTING AUDIO SOURCE

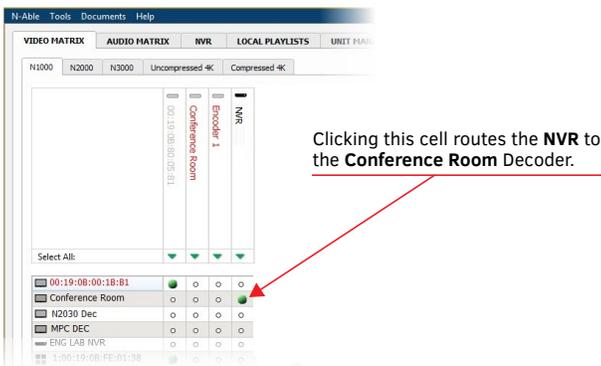
- Depending on what mode you are using, recording times and record/playback options will vary. See the following table for more details.

NVR Mode Specifications		
Mode	When in this mode you can...	Recording Time Estimates
N1000	...only record OR play back one stream at a time.	4.5 hours (880 Mbps/uncompressed)
N2000	...record up to two streams (dual sync) or record one stream while playing back another.	43 hours (100 Mbps/JPEG 2000 compressed)
N3000	...record up to ten streams and play back up to ten streams simultaneously. The streams can be asynchronous.	434 hours (10 Mbps/H.264 compressed)

NOTE: 4K Ultra HD products (N2151/N2251) are supported in compressed mode only.

Playing Recordings

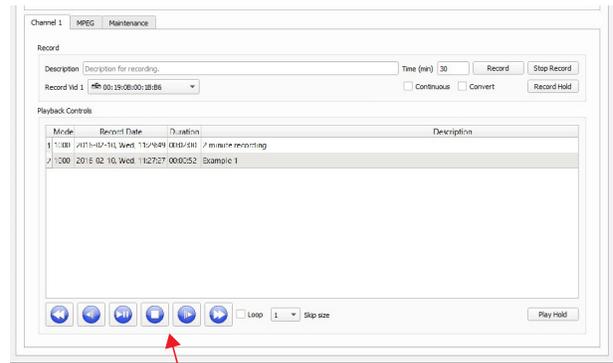
- Use the **Video Matrix** in N-Able to route your NVR to a Decoder for output. This is done in the same manner as when you route Encoders to Decoders. See FIG. 4.



Clicking this cell routes the NVR to the **Conference Room Decoder**.

FIG. 4 ROUTING NVR TO A DECODER

- Select a completed recording from the **Channel** sub-tab(s) of the **NVR** tab (as shown in FIG. 5).



Play back and navigate your recordings using these controls.

FIG. 5 RECORDINGS LIST

*NOTE: If your recording does not display in the list, first make sure that your NVR is in the same mode that was used to create the recording (NVR Mode drop-down on the **Maintenance** sub-tab). If that setting is correct and the recording still does not display, you may need to refresh the page.*

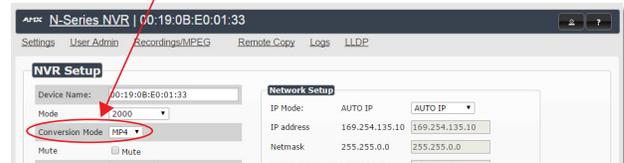
Converting Recordings to MOV or MP4 Files

Once a recording is completed, you can convert it to an MOV or MP4 file by following the steps given in FIG. 6.

NOTE: HDCP content cannot be converted.

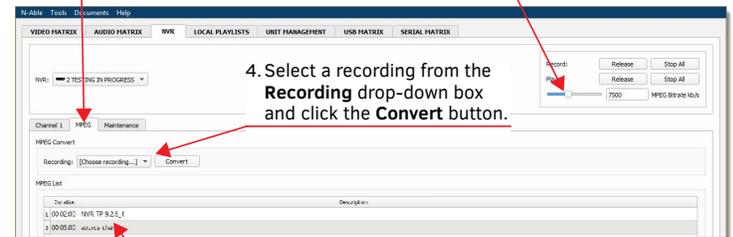
NOTE: Encrypted N3000 streams cannot be converted. Unencrypted N3000 streams can be converted to MP4 files only.

- On the NVR's **Settings** page, choose what **Conversion Mode** you want to use (**MOV** or **MP4**).



- On the **NVR** tab, select the **MPEG** sub-tab.

- Use the **MPEG Bitrate** slider to adjust the quality of the conversion. The higher the bitrate, the higher the quality (and the larger the file). The default bitrate is **7500 kb/s**.



- Select a recording from the **Recording** drop-down box and click the **Convert** button.

- Completed conversions are listed here. Select the conversion and then click the **Download MPEG** button (not pictured, but is located at the bottom-left of this screen) to watch or download the file.

*NOTE: When you click **Download MPEG** with an MP4 file selected, the file begins playing in your default browser (at which point you can right-click to download).*

FIG. 6 CONVERTING RECORDINGS

*NOTE: Conversions can take 1.5 times the length of the recording to complete. To check the progress of the conversion, click on N-Able's **Unit Settings** tab and look in the **Mode** column. The number listed shows the current completion percentage of the conversion.*

Please contact SVSI technical support at svsisupport@harman.com or 256.461.7143 (x9900) for assistance with any installation issues.

