
COMPLETEVIEW NVR/DVR FUNCTIONALITY REFERENCE

COMPLETEVIEW VERSION 4.7.1

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NVRs & DVRs

CompleteView™ is capable of interfacing with select models of Samsung and HikVision NVRs (Network Video Recorder) and DVRs (Digital Video Recorder)*. CompleteView™ can access both live and recorded NVR video.

NVR support is available only in CV Pro, Enterprise and Trial editions.

***Note:** Hereafter, both devices will be referred to collectively as “NVRs”.

Currently Supported NVRs

The list below reflects all supported NVRs with their known functional limitations.

Functionality Limitations

Make/Series/Model	Limitation
HikVision DS-7716NI-SP/16	Currently limited to one (1) playback connection. No Export.
HikVision DS-76xx Series (DS-7604, DS-7608, DS-7616)	Currently limited to one (1) playback connection. No Export
HikVision DS-6700 Series (DS-6704, DS-6708, DS-6716)	No Export.
Samsung SRN-x73S Series (SRN-473S, SRN-873S, SRN-1673S)	SRN-x73S is limited to a maximum of three (3) users. Note: Samsung uses RTSP port 558 as opposed to CompleteView’s port 554.

Search & Playback

The following apply only to video recorded to an NVR, and not to video recorded to a CompleteView™ server by a camera associated with an NVR. See the [Storage Option](#) section for more detail.

Clip Search on NVRs is not filtered by events. All clips are returned within the time period specified by the search parameters regardless of what filters are selected.

Some lag may be evident seeking video.

Playback at any other speed than 1X is inconsistent at present.

Multi-channel playback is currently disabled for all NVRs/DVRs

Stressing the seek by holding down the left or right arrow (auto repeat) may hang the Video Client, and force the user to re-load the clip.

Smart Search is not supported.

There is no size information (file size) reported for clips stored on a NVR.

Thumbnail search is not currently supported.

NVR Licensing

Every 8 channels of an NVR count up to one IP license if the [Storage Option](#) is set to NVR Storage.* If the Storage Option is set to VMS Volume, every channel will use an IP license.

*Does not apply to Hikvision encoders.

When adding a new camera/NVR channel to the server configuration, the IP license will be consumed based on the number of channels already configured.

If cloning an NVR channel with storage option set to NVR and all IP licenses are consumed, cloning is allowed if all 8 channels haven't been added.

This licensing applies to the following models only:

Hikvision	Samsung
DS-7604NI-SE/P	SRN-1673S
DS-7608NI-SE/P	SRN-473S
DS-7616NI-SE/P	SRN-873S
DS-7716NI-SP/16	

The license restriction is applied as follows:

- Server Configuration will display an error message when adding a new NVR if the license edition is CV Cloud or One
- If a server config file that has NVRs already configured is loaded on to a CV Cloud or One server:
 - The server will not load the NVRs
 - An "Info" event with a warning message will be logged to the server GUI and to the diagnostic logs (logging level must be Info or higher)
 - Cameras configured as NVR channels will no longer be associated with any NVRs. If the storage option was set to NVR only, it will be reset to VMS Volume

-
- Server Configuration will not list any of the NVRs, and cameras will behave like regular IP cameras. IP model will remain unchanged
 - All of the above changes are made to the main server's copy of the config in memory. The config file itself will not be modified unless a save configuration action takes place
 - If an archived config file that includes NVRs is loaded in the server configuration, the NVRs will be listed, but when the configuration is saved and pushed to the server the server will perform the same actions as above. Reloading the configuration in the Server Configuration will remove the NVRs

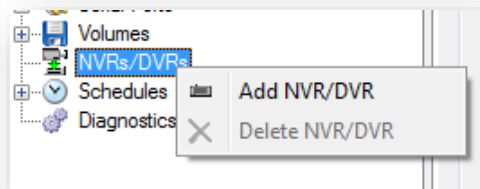
NVR Setup

Configuration of recording schedule and settings are performed by the user using the NVR manufacturer's supplied interface.

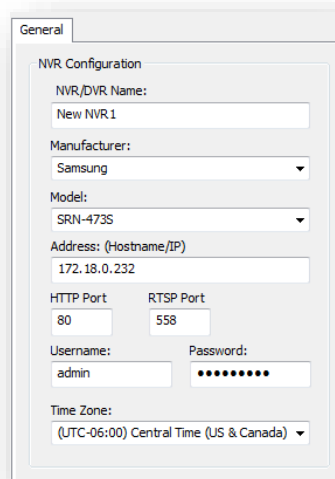
Disk management and backup are performed by the user using the NVR manufacturer's supplied interface.

Configuring CompleteView™

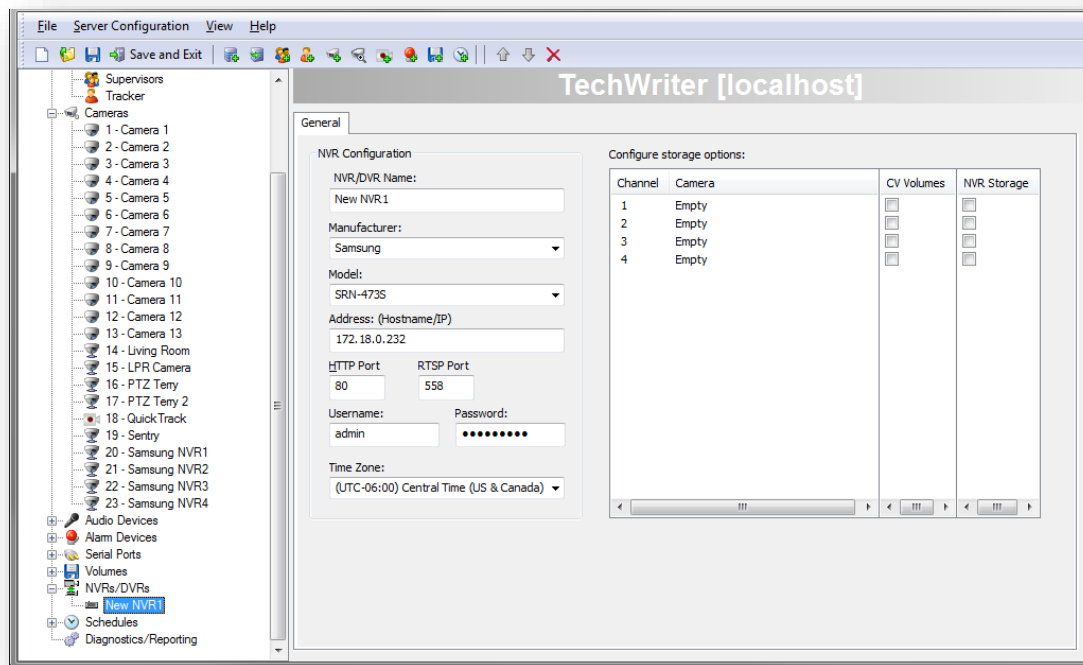
Initial configuration of the NVR and its associated cameras is to be done in accordance with the manufacturer's directions. Once configured, launch CompleteView™ Server Configuration, log in, right click on the "NVRs/DVRs" menu tree, and select "Add NVR/DVR" to associate the NVR with the CompleteView™ server.



Name the NVR, and select the Manufacturer, Model, and Address, then enter the appropriate credentials and select the NVR's time zone.

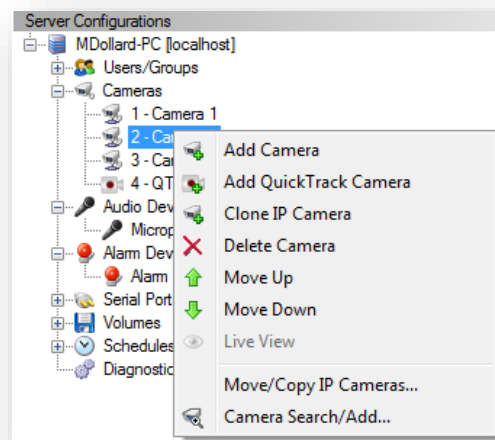
A screenshot of a 'General' configuration window titled 'NVR Configuration'. It contains the following fields: 'NVR/DVR Name' (text box with 'New NVR 1'), 'Manufacturer' (dropdown menu with 'Samsung'), 'Model' (dropdown menu with 'SRN-473S'), 'Address: (Hostname/IP)' (text box with '172.18.0.232'), 'HTTP Port' (text box with '80'), 'RTSP Port' (text box with '558'), 'Username' (text box with 'admin'), 'Password' (password field with 8 dots), and 'Time Zone' (dropdown menu with '(UTC-06:00) Central Time (US & Canada)').

Note that the number of channels for a given NVR are determined by that model's capabilities. A four channel NVR will have four accessible channels in CompleteView™, a sixteen channel NVR will have 16, etcetera.



Adding Cameras to an NVR

After successfully configuring the NVR, adding cameras works similarly to adding non-NVR cameras in CompleteView™. In Server Configuration, right click on “Cameras,” select “Add Camera,” and enter a meaningful name.



Select the make of the camera from the Manufacturer dropdown (which will be the same make as the NVR that was just added), then **select the model of the NVR** from the Model dropdown.

Next, check the “Configure NVR/DVR Channel” box. Select the appropriate NVR from the dropdown list. The next available channel in the “Select Channel” dropdown menu will be selected. Change the channel, if desired.

Storage Option

CompleteView™ presents two options for recorded video from NVR cameras; VMS Volume or NVR Storage.

If VMS Volume is chosen, the video data is stored on the CompleteView™ server and behaves much like video data coming from any camera not associated with an NVR. The CompleteView™ server is capable of taking over stream processing as with other cameras whose on-camera capabilities are not natively supported by CompleteView™. Scheduling for the video stream is configured on the CompleteView™ server as with any other camera.

If NVR Storage is chosen, the video data is stored on the NVR. Search filters within the Video Client such as motion or alarm event recording searches are not available, and the video can only be searched by a given time range. Currently, video stored on Hikvision NVRs is not available for export, while Samsung NVR video export is supported.

After selecting the Storage Option, click “Apply”, and save the CompleteView™ configuration. Note that the credentials, IP address, etcetera, auto populate from the configured NVR.

Changing NVR Parameters in CompleteView™

Changes to the NVR IP Address, HTTP port and RTSP port are echoed to cameras automatically via software.

Changes to credentials (username & password) are echoed to cameras automatically via software.

Changes to the storage options are echoed to cameras automatically via software.

Changing the Manufacturer of a configured NVR will sever the link between the cameras and the NVR instance. Only the Storage option of the associated camera(s) will change (to VMS Volume). The IP Address, HTTP & RTSP port and credentials will remain intact.

Changing the Model will sever the link of any camera that no longer falls in the range of channels. Otherwise, the existing configuration is maintained.

NVR Status

The status of an NVR is reported similarly to other video volumes in CompleteView™. Its status is reflected in the Admin Console.

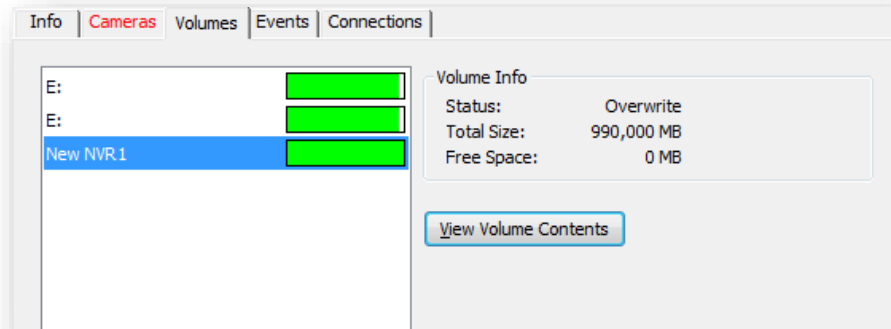
NVR Recording Status

NVR recording status is reported similarly to other video recording volumes in the Admin Console.

	NVR Recording
	NVR Recording + Video Signal Lost

NVR Volume Status

NVR Volume status is reported similarly to other video volumes.



Additional Resources

Visit the Salient website, www.salientsys.com, for additional support and CompleteView training:

- **Manuals & Documentation** (<http://www.salientsys.com/support/manuals-and-documentation/>) – Includes Administrator’s Manual, Client User Manuals (including Video, Alarm and Web clients), How To Guides and Tips.
- **Online Tech Support** (<http://www.salientsys.com/support/>) – Get quick access to online tech support modules that cover the most frequently asked product questions, such as “Adding and Moving IP Camera Licenses.”
- **Training** <http://www.salientsys.com/support/training/> – we offer both online and classroom training.
 - CompleteView™ Online Certification - Register online for access to interactive training modules covering the Video, Alarm, Mapping and Web clients
 - CompleteView™ Classroom Certification - Our traditional classroom training is available throughout the United States. Please visit the Salient website for link to online training, training calendar, agenda and registration

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