NVR Storage and Archiving Scenarios

The following discusses different recording and archiving solutions for the OnSSI NetDVMS, NetDVR and ProSight-SMB NVR software. Each solution has its advantages and disadvantages, as explained below.

In the following scenarios, the term 'Record Live' is used for storing recent video (e.g. from the last 24 hours); and the term 'Archive' delineates long-term storage.

Note that all of the scenarios described below, as well as recording directly to a NAS (Network Attached Storage) are applicable to NetEVS.

Scenario #1: Record (Live) and Archive (Long Term) to the same 'local' Hard Disk on the server

Database path for Live and Archive video:

- Live: local drive
- Archive: local drive

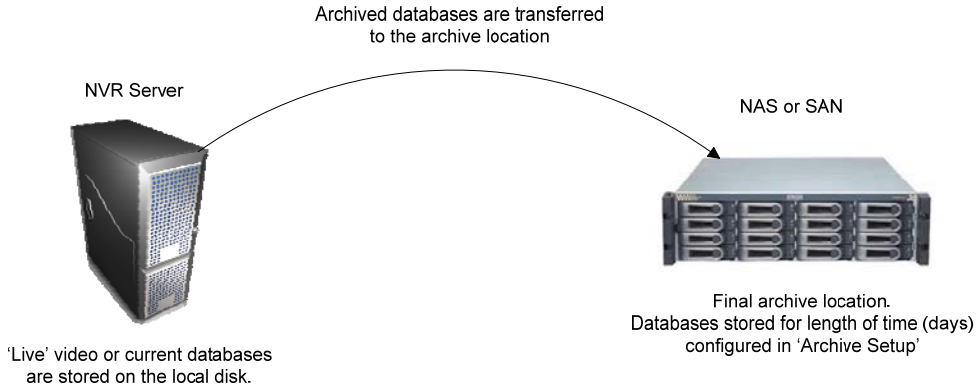
When archiving occurs, the software places the live databases in the archive folder and starts recording immediately.

Advantage:
'Live' video is stored locally and not subject to network latency. 'Archived' video is also stored locally making it fast, easily accessible and less prone to latency when browsing recorded video.

Disadvantage:
Local physical storage is more expensive, especially when compared to a large scale storage solution or a NAS.

Scenario #2: Record (Live) video to local drive, while Archiving 'elsewhere' (NAS, SAN, or USB Drive)

In this scenario, the 'Live' recordings will be stored to the local disk drive while the archived databases will be stored in a different location (i.e. a NAS, SAN or USB Drive).



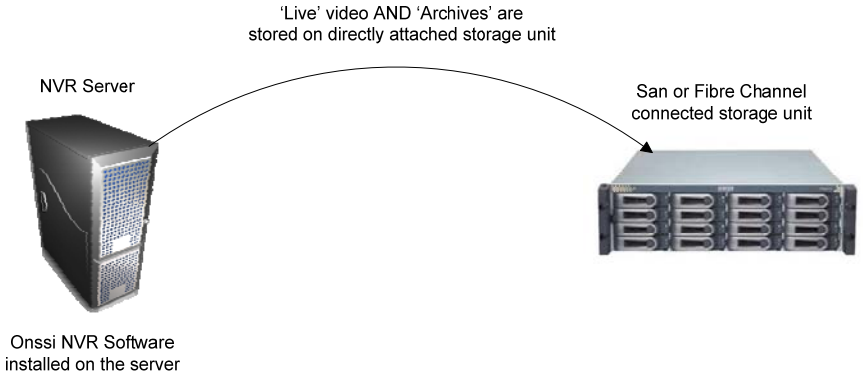
When archiving occurs, the system moves the live databases to the temporary 'Archive' location, and immediately starts recording live video. In the background, the system will copy the 'Archived' files from the temporary location on the local drive to the actual archive location on the remote drive.

Advantage:
'Live' video is stored locally. 'Archived' video is stored on a device using less expensive storage with a large capacity. Background transfer of 'Archived' data is done seamlessly behind the scenes.

Disadvantage:
Archive video can take long periods of time to move to the archive destination, this is directly influenced by the capacity of the local drives, and the connection to the archive location.

Scenario #3: Record 'Live' and 'Archive' to directly attached storage (SAN, Fiber channel etc.)

In this scenario, the NVR camera management software is installed on the server but the video data is stored on a directly attached storage unit.



Archiving would take place the same as the 1st scenario.

Advantage: 'Live' and 'Archived' video are stored on a device with a large capacity using less expensive drives, allowing for archiving on a less frequent basis. Since the storage for both 'Live' and 'Archived' data is local, there are no issues with network latency and connectivity.

Scenario #4: Recording ('Live') and Archiving directly to an iSCSI storage solution

Another option is to use an iSCSI (network-connected SCSI drive) storage solution.

The storage system is attached over the network using the iSCSI initiator. The iSCSI drives appear to Windows as a local drive.

In testing with different iSCSI solutions we have noticed varying results in performance. Each iSCSI solution should undergo testing to ensure reliability.