



## HOW TO CHOOSE THE RIGHT Video Storage Option for Your Needs

### YOUR VIDEO NETWORK IS UNIQUE

Video surveillance is an integral part of a business security system, assisting as both a crime deterrent and a convenient method of documentation. Any business should be informed on all of the video storage options before making a decision on which is right for them, because every business environment is unique. What works in one location might not make sense for another for a wide variety of reasons.

Once you invest in video, there are many ways that you can view the live (or recorded) video feed. When deciding which option is right for your needs, consider these key factors.



### AVAILABLE TECHNOLOGIES

There are four main video storage technologies: **Digital Video Recorders (DVRs)**, **Hybrid Video Recorders (HVRs)**, **Network Video Recorders (NVRs)**, and **Video Management Software (VMS)** systems. Each system offers its own unique benefits and compromises, so knowing which one represents the best fit for your business can be a guessing game.

The table below can help establish a few of the key pros and cons of each system. On the next page, we'll take a more in-depth look at each one.

	DVR	HVR	NVR	VMS
PROS	<ul style="list-style-type: none"> <li>Generally lower system cost</li> <li>Simple integration</li> <li>Can be monitored remotely</li> <li>Typically standard definition, but HD Analog DVRs can achieve up to 720p</li> <li>Mobile app capable</li> </ul>	<ul style="list-style-type: none"> <li>Leverages existing Analog infrastructure &amp; expands to support IP Technology</li> <li>Simple integration</li> <li>Can be monitored remotely</li> <li>Can support higher resolution cameras (1080p or greater)</li> <li>Mobile app capable</li> </ul>	<ul style="list-style-type: none"> <li>Can be placed anywhere</li> <li>Single connection via network cable</li> <li>Optional POE port support</li> <li>Uses higher resolution IP cameras</li> <li>Can be monitored remotely</li> <li>Mobile app capable</li> </ul>	<ul style="list-style-type: none"> <li>Most robust &amp; scalable system</li> <li>Can utilize any cameras</li> <li>Remote monitoring via web browser or client</li> <li>Advanced analytics capabilities</li> <li>High integration flexibility</li> <li>Fully-featured mobile applications</li> </ul>
CONS	<ul style="list-style-type: none"> <li>Limited number of physical camera inputs</li> <li>Generally lower image quality</li> <li>Point to point connection– requires more cabling</li> <li>Space limitations</li> <li>Limited scalability</li> </ul>	<ul style="list-style-type: none"> <li>Higher cost over DVRs</li> <li>Generally less processing power than an NVR</li> <li>Typically requires larger equipment footprint</li> <li>Limited scalability</li> </ul>	<ul style="list-style-type: none"> <li>Higher cost of cameras</li> <li>Video quality is dependent on network bandwidth</li> <li>Limited scalability</li> </ul>	<ul style="list-style-type: none"> <li>Higher solution cost</li> <li>More complex user interface</li> </ul>

## DIGITAL VIDEO RECORDERS (DVRs)

A **DVR** is an analogue and/or IP-based recorder that uses a consumer electronic device or application software that records video in a digital format. DVRs enable you to search footage by date, time, event, and camera, and some newer DVRs even have some video analytic capabilities. All in all, DVRs are easy to install and operate right out of the box; however since the cameras require a point-to-point connection, you may need to run additional cables and be prepared for the associated labour costs.

## HYBRID VIDEO RECORDERS (HVRs)

An **HVR** is the perfect bridge between your legacy analogue technology and infrastructure and newer IP cameras. These devices cost slightly more than a DVR and often require a larger equipment footprint. However, they offer a blended design that is purpose-built for a combination of analogue and a limited expansion of IP cameras— meaning that while they can support a small additional subset of IP cameras, they are not designed to support an entire array of high megapixel IP cameras.

## NETWORK VIDEO RECORDERS (NVRs)

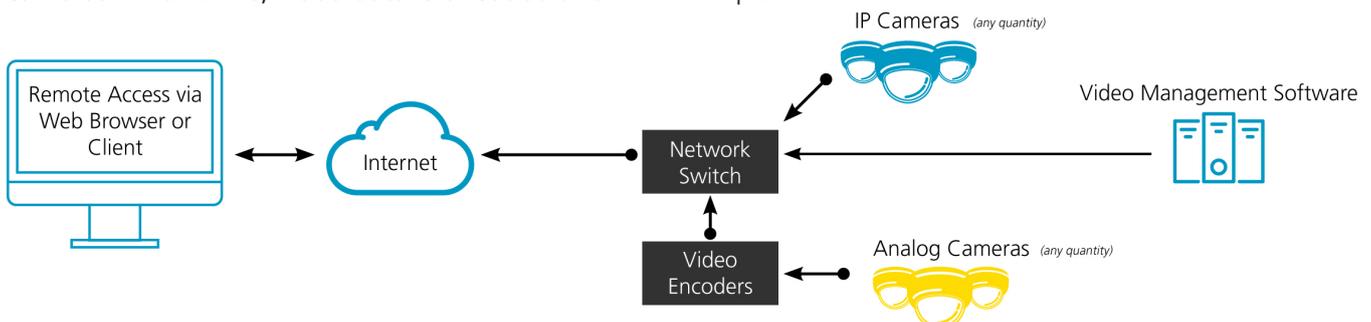
Unlike DVRs, **NVRs** don't need to be directly tethered to your cameras, and use IP cameras for HD (or even 4K) resolution. This unit can be placed virtually anywhere, and just needs to be on the same LAN network as the IP-based cameras. With DVRs, video data is encoded and

processed within the DVR itself; in an NVR environment, this takes place directly at the camera. NVRs are basically a software program that records your video footage to a digital format, whether to a hard drive, USB or some other type of mass storage device.

Apart from ease of installation, the key benefit of NVRs is that they allow you to capture higher quality video, which can be much more useful for facial recognition or even forensic evidence. HD-quality footage, in tandem with various software systems, can even help generate analytics that help drive business intelligence. However, NVRs are limited in terms of network bandwidth and scalability. To achieve maximum performance from your cameras, your network needs to be able to meet their bandwidth requirements. In terms of scalability, generally NVRs are purpose-built for each location, so integrating additional cameras to the network can be difficult— or in some cases— not possible.

## VIDEO MANAGEMENT SOFTWARE SYSTEMS (VMS SYSTEMS)

**VMS** systems are generally the most robust, scalable video storage option. With a VMS system, you can combine the best of both worlds by utilizing video encoders to add older or existing analogue cameras to your network, while also leveraging the enhanced quality and convenience of IP cameras. The diagram below illustrates how a VMS system interacts with each component of your video surveillance platform.



**VMS** systems also allow you to gain many features and functions that make it easier to research an incident after it has occurred, watch live video, and perform analytics. You can even access your live video feed over the Internet via a web browser or another client, like a mobile application.

If you anticipate adding more cameras and locations to your network over time and you are interested in gaining insight and analytics from your system, a VMS system is probably going to be your best option.

## INTEGRATOR PARTNERSHIP

Partnering with the right integrator removes the burden of determining the right solution for your business needs. Every business application comes with its own unique challenges and concerns that need to be solved, and many video surveillance providers often provide customized solutions to meet these unique needs. STANLEY can help design a comprehensive security system tailored to your business.