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The DVR Decision

SDM talked to security managers about what they look for in product and supplier when making a buying decision.



Digital video recorders (DVRs) and networked video recorders (NVRs) are critical components of many commercial security systems. SDM talked with security managers and directors who make buying decisions about these products to discuss what they look for in this kind of equipment — and in the systems integrators who install the devices.

Equipment concerns

Ask several different security equipment decision-makers about their most important DVR or NVR selection criteria and you're likely to get a range of answers.

"We look for clarity, which will be based on the frames per second and the resolution," notes Anthony Montes, director of physical security for upscale retailer Saks Fifth Avenue, headquartered in New York City. "Then we look for storage capability. We like to store at least 30 days, preferably 60 or 90. That depends on the compression and the frame rate." Ideally, Montes says, he'd like to have the best quality playback and the smallest file size. "We're getting closer in the industry, but we're not there yet. Every year there are higher frame rates, better resolution, and smaller file size."

Dominic Grassi, corporate security technology manager for utility Con Edison, also based in New York City, has a different view. "The most important thing is the reliability of the piece of equipment and the customer service support from the manufacturer and integrator. Then you get into compression and the bandwidth associated with the type of compression used. Then you get into resolution and frames per second."

Other factors that decision-makers interviewed for this story consider when buying a DVR or NVR include remote viewing capability, ease of maintenance and upgrades, the ability to integrate with the organization's access control system and a minimum of 30 days storage.

Alan Nutes, manager of security services for Gulfstream Aerospace, Savannah, Ga., mentioned reliability as well as ease of maintenance and upgrades as his most important criteria. "I gauge reliability based on service calls and how often I

have to reboot," he says. As for ease of maintenance, he says that includes "being able to hot swap on hard drives, and ease of access to the back of the components."

Image quality

Many of these criteria — including frame rate, resolution and others — help determine image quality, which was cited as important by all of those interviewed.

Furthermore, many large organizations have so many cameras, no one can view all of them in real time, making the quality of archived images particularly critical. "We use a lot of CCTV for liability reduction," comments the security director for a financial firm, who asked that neither his name nor that of his employer be used in this story. "If you have a slip-and-fall incident, you can review the archives and see someone throw water and fake the slip and it holds up as evidence."

Storage

Because archives are so critical, storage is also a major concern for most security organizations. "With a couple hundred cameras worldwide, storage is very important," notes the financial firm's security director. "We store video on site and on a master network server, so we need to be able to compress it."

Some of the security decision-makers use networked video recorders, while others prefer to rely on local recording.

Organizations that do use networked recorders, such as Con Edison, pay particular attention to the bandwidth that their systems will consume. Also important, is to be able to record locally as well as at a central location, Grassi says. "In the event the network connection is lost, you're still recording at the local level so you don't lose data."

Some decision-makers also differ in their attitude toward cost. Grassi says cost is an important consideration because Con Edison strives to minimize costs to ratepayers — although he hastens to add that equipment price alone does not determine overall system cost. "Any money you do spend, you want to make sure you're spending correctly, efficiently and cost effectively," he says. "You don't want low-grade equipment that will break down in three months and then you're



Many security managers view image quality, particularly the image quality of archived images, as critical when making a buying decision.

looking to replace it.”

Montes, meanwhile, says cost is not very important. He notes that systems integrators sometimes overestimate the importance of cost and bid equipment that doesn't meet all of his criteria. “What's more important to me is getting what I want,” Montes says.

When to upgrade

Several sources say DVRs generally have a life of about five years. “We lay out a five-year plan that would include the life expectancy of the cameras, the recorder and other equipment,” Grassi notes.

Recently, however, that goal has been difficult to reach, Grassi says. “Unfortunately, today things are changing by leaps and bounds from month to month,” he notes.

Another decision-maker says that his financial firm doesn't normally replace recorders unless one breaks down or there is a large building upgrade. He points to that fact that, because the systems are digital, he finds that the heads don't wear out like previous technologies.

The security-decision makers we spoke with said that when they do consider a new video recorder, they make sure to put it through extensive testing, including bench testing and real-world testing. “We try to throw every scenario at it that we can think of — pulling the plug, giving it a power surge, operator failure,” Nutes says. “We might throw it into a closet to let it run and heat up and see when it will fail.”

Montes advises other security purchasing decision-makers to ask vendors for what he calls a “try-buy” arrangement. “Whatever they recommend, we install it as a try-buy,” he says. “We ask for a 60-day demo.”

Some security managers and directors rely on systems integrators or manufacturers to keep them up to date on information about new video recorders. Other security managers exchange information regularly with their peers.

The systems integrator

Another critical decision that security managers and directors must make is choosing the systems integrator who will help with video equipment selection and installation.

"A lot of companies claim to be integrators, but in this day and age, you have a lot of security monitoring and alarm companies that sell themselves as integrators, but really are not," cautions Grassi. "It costs a lot of time, effort and money to find out that person really isn't a systems integrator."

To help in distinguishing what Grassi considers true systems integrators from less sophisticated companies, he recommends looking at the background and experience of the engineering and support staff. "Can they do a CAD drawing?" he asks. "Can they perform IT integration? Can they talk to a company like mine that has in-house IT staff?"

Nutes also finds the expertise of some systems integrators to be deficient. To try to screen the good from the bad, he relies on the word of other security managers. "I listen to my colleagues and what they have to say," he says, adding that he also considers the integrator's willingness to share manager cellphone numbers and e-mail addresses.

Montes relies heavily on recommendations in selecting a systems integrator. He generally deals directly with manufacturers in making his equipment selection, and he asks for the manufacturer's recommendations when the time comes to select a systems integrator.

Some security managers, including Grassi, view their relationships with systems integrators as long-term partnerships.

A good systems integrator partner can help security managers and directors with critical tasks, such as product selection and testing.

The security director for the financial firm agrees that long-term relationships can be valuable and encourages systems integrators to recognize that. "Don't take the short-term money; work on the long-term relationship," he advises.
