Seeing the Big Picture

Build a strong case for ROI when considering new technologies

By Scott Schafer

Megapixel IP cameras and systems can have a profound impact on security solution purchases because they can significantly improve return on investment and image quality.

A convincing business case for purchasing new security imaging technology cannot be created unless you know what you're buying. Knowledge of new and emerging technologies is the security professional's best tool to separate hype from reality. Megapixel camera technology provides the most superior imaging quality, and better images make for better systems. Making smart technology choices can help a company leverage the benefits of innovation while still minimizing costs.

Taking the economy into consideration, companies need to be careful about how they spend money. The tightening of corporate spending patterns extends beyond the residual impact of the recent economic downturn. An ongoing trend toward leanness is affecting expenditures that are expected to provide ROI. Security professionals are well aware that all capital expenditures face incredible scrutiny at the corporate level. Quite simply, the value of a purchase is more important than the price.

THE CASE FOR MEGAPIXEL CAMERAS

Megapixel IP cameras on IP recording platforms are extremely cost effective. Fewer megapixel cameras are required to cover the same physical area, and resolution and picture quality are greatly improved over standard-resolution cameras. Using fewer cameras offers the additional cost-saving benefit of reduced cables, camera housings, lenses, NVR licensing fees and NVR systems, and installation expenditures.

Even before factoring in the value of megapixel imaging, IP security systems already offer several benefits that can help make a case for strong ROI. These include:

Standardized IT-based components. IP video systems are created using the same building blocks—servers, network switches and digital storage—that make up the IT industry. Competition among suppliers of industry-standard systems tends to lower prices and increase technology advances. Product functionality is enhanced even as the prices come down. There also is a broader choice of sources for new equipment and technology platforms.

Ability to use existing infrastructure. For new installations, cabling costs can be significantly lower if the IP system uses existing Ethernet infrastructure. For example, existing fiber-optic cables can be leveraged for networked systems. More importantly, the video security network architecture, design and support can be identical to the network that is deployed for other IT and networking uses.

Software flexibility. Because the brains of IP video systems are in the software, it is much easier to update or upgrade a system. Software can be updated over the Internet, and updating both firmware and software is more efficient and less expensive than physically replacing equipment.

Smarter systems. Paying operators to watch a display of 10 to 500 cameras for hours is expensive and impractical. Expecting the operator to be monitoring the correct camera at the precise time to enact PTZ mechanical functionality is wishful thinking. Viewing the stored megapixel image and being able to electronically PTZ the image to extract the information needed is much more practical and economical. Forensic, stored data and images can be more easily retrieved through more sophisticated network video platforms.

Technology that combines analytics with digital imaging is capable of sensing a change in a video frame and then alerting a human operator only in case of a rules-based alarm.

Fewer cables. The basic structure of an Ethernet network contributes to lowered cabling costs because a camera can connect to the nearest network node, as opposed to using a coax cable to connect to a centralized recorder. Cat-5 cabling used in IP networks is less expensive than coaxial, weighs less and has a faster transmission speed. Because it is a part of the company's standard IT architecture, the IT department is more accepting of Ethernet cabling over coax cable.

Power over Ethernet. Connections can be simplified by using PoE technology for IP systems. The camera is powered by the same cable as the network connection, eliminating the need for a separate power source to the camera. For non-PoE implementations, separate electrical wiring and installation are required.

When evaluating the numbers for a new system installation, it is helpful to take a broad view of overall system costs. The complete cost of the system is obviously a better measure than the price of a single component. Users may react to the price of single components and dismiss a new technology as too expensive without considering how the extra expense will be offset by added functionality and other system cost savings. For megapixel cameras, factors helping to offset a higher price include the need for fewer cameras, a decrease in infrastructure and installation costs, the elimination of mechanical PTZ devices and a reduction in operations staff.

Megapixel video camera technology provides clear images that can be enlarged so the security team and law enforcement can see all the necessary details. The security professional's task is to quantify that value, demonstrate to management the financial impact of being able to solve a case or thwart a fraudulent liability lawsuit. Megapixel video is a valuable tool for achieving these goals. The precise value of the added performance and functionality is dependent on each application and specific to each end-user company.

A challenge for security professionals is to demonstrate the value to their company's executives using management and security metrics. Knowledge is vital—both of the technologies and their capabilities and how they can impact the company's profitability.

SUPERIOR IMAGES: WORTH THE COST

When dealing with corporate spending constraints, security professionals should consider the initial cost and ongoing expenses of new technology. Above all, one should focus on the value technology can bring to the enterprise, for example, by protecting corporate assets, improving loss prevention, defending against expensive liability lawsuits and making simple security operations more efficient.

Even with tight budgets, certain methods can help demonstrate and assign value to the benefits of new technologies, especially megapixel video. The system integrator also can help his or her customer build a credible business case. Here's how:

Demonstrate the value of using megapixel IP solutions. Show how other organizations have benefitted from megapixel technology solutions. Look for ways that traditional video has failed and explain how megapixel video is better. We have all seen analog recordings of poor crime scene videos. With megapixel video camera resolutions being up to 30 times greater, details can be more easily discerned. Additionally, one can zoom in after an event and further enhance those details, which is a challenge for analog and low-definition cameras.

Be specific about cost savings. Create a spreadsheet comparing costs of a system using megapixel cameras versus standard IP and analog cameras. Focus on the specific financial impact of using fewer cameras or eliminating PTZ. Factor in all the costs, including infrastructure savings, reducing the number of components—such as cameras and cabling—installation and support savings, and operator savings. Provide a case that translates the technology benefits into operational advantages for the company.

Become a trusted partner and consultant. Providing real service and value will convince your decision makers that you want to meet their specific business needs. Trust will be your reward.

Emphasize better image resolution. The quality of a megapixel image is a great selling tool for the technology. Viewing live and recorded megapixel images is one of the best ways to make a strong case for the new system.

BETTER DAYS AHEAD

When the economy recovers, there will be huge opportunities to apply IP-based megapixel video products to new projects. And even during times of economic challenges, there are still significant opportunities for IP-based megapixel video products to make security systems more effective than ever.

If we learn how to communicate a measurable return on investment to companies and our clients, it will empower us to take the industry to the next level. Choosing megapixel imaging technology can profoundly expand the functionality and ROI opportunity of any IP-based system.

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