No Excuses, Just Solutions:

Improving Security at Boone Hospital Center

Situated just off I-70 in Columbia, Missouri, Boone Hospital Center is a 400-bed facility staffed by more than 2,000 employees and 350 physicians. Because of its location between Kansas City and St. Louis, the hospital sees a high number of travellers and transients who pass through the community. Couple that with the more than 30,000 students attending the University of Missouri and one starts to see the kind of security challenges that the hospital's security personnel have to contend with.

"I always tell people that Columbia is not the sleepy little farm town it used to be," says Security Services Director Rob Loseman. "Many of the crimes that happen in and around our hospital aren't necessarily committed by residents of our community; they're transient, involving people passing through. Plus, our facility sits in the East Campus neighborhood by the university – affectionately known as the Student Slums – so there's a level of crime that's inherent to having such a large student population nearby. And then there are the kinds of offenses that are typically associated with hospitals: thefts, acts of violence, domestic abuse cases. We generally stay on top of all of it by maintaining a presence and conducting frequent patrols of the premises. However, in order to be truly effective, we need to have comprehensive security systems in place."

That's where Will Electronics comes in.

"One of the first projects I was involved with was an upgrade to our CCTV system," Rob recalled. "Will Electronics had been hired by my predecessor to manage the job, and their technicians were in the process of completely redoing the entire platform for the monitoring station. The old setup had all of the DVR hardware and equipment sitting right next to the officer manning the station, so it was hot, noisy and cramped. I could tell that my people weren't happy when they were on duty in there."

"With Will Electronics' help, we set up a separate data room to house the equipment and completely upgraded the monitor array. The new station not only features more advanced monitoring technology, it's also a more comfortable and efficient setup for the officers on duty. We also increased the camera count to over 300, increasing our coverage of the hospital and grounds. We're also expanding our parking structure, and the new system is easily expandible for the cameras that will be installed there."

The new CCTV system brought a host of improvements: better resolution and image detail, remote accessibility. However, Rob soon discovered other advantages to having the new system, particularly when it came to addressing lawsuits brought against the hospital.

"The risk management personnel love us because we always have documentation footage. Say someone files a claim that they suffered an injury because they slipped and fell in a hallway. Officer logs will record 'Officer responded to a fall incident.' They spell it all out in a clear report, then include 'See CCTV footage' with a reference number. We package it all up and send it to Risk Management. They have it all there so that, when the lawyer comes a-knockin' we can say, 'Here's the report from security, and here's the report from customer relations and safety, and here's the camera footage

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"You wouldn't believe how much support we've gotten from our Capitol Committee for getting more hardware and system upgrades. They approve our projects pretty readily because, despite the costs, they know that we're saving them money on the back end," said Rob.

Another challenge Rob needed help resolving was the hospital's antiquated access control system. "We were running three separate access systems – an online system, an offline system, and our regular hardware locks. The offline locks were causing us all kinds of problems. There were four different generations in use, and each had its own means for updating them. Some were battery-operated, keypad-style locks that were reprogrammed by manually entering one or more sequences of numbers. Others had to be reprogrammed with a PDA or laptop. It was just a labor nightmare." "I approached Will Electronics and said, 'I want to get rid of these things and replace them all with a single, state-of-the-art online access system.' Now we've got a single platform running an online system that has reporting capabilities, they can be operated from satellite locations in the event of an emergency, we can do scheduling - there's just an amazing capacity for managing the system that we never had before."

Rob says he's been impressed not only by the skill and efficiency of Will Electronics' technicians, but also by their expertise. "We know what we want, but we don't always know what it's going to take to get us there," says Rob. "With our prior vendor, the customer service just wasn't there. With Will Electronics, I could say, 'We want to do this,' and they'd come back and say, 'We could do that, but there's a better way.' On some occasions they've even told me when there's an easier, less expensive way to accomplish what I want. They could have just gone along with my idea and billed me accordingly, but that's not what they're about. Every step of the way, they're willing to work with us; they make sure that what we get in the end is exactly what we want."

"Will Electronics has always met the goals that we've put forward to them. Every project, from minor repairs to major improvements, has always been handled in the same manner: with good customer service and respect. We have a mutual professionalism and we're good partners - and I think we will remain that way moving forward."

Enhanced System Protection Program

Keep your system performing at its best!

Will Electronics' Enhanced System Protection (ESP) Program can help you keep your system up to date and operational, reduce hardware failures, and ensure that your system is running effectively and efficiently with periodic Preventive Maintenance.

Your company's CCTV, Intrusion, Emergency Telephones and Access Control systems all require periodic maintenance and upkeep, in order for them to be fully effective. When was the last time you addressed these important maintenance elements?

- Ensured that all cameras have a proper field of view and are free of obstructions in the picture?
- Cleaned camera domes, bubbles and outdoor housing glass?
- Checked for proper recording and playback functions?
- Checked the night-time performance of your cameras?
- Cleaned your monitor screens?
- Checked the time stamps?
- Verified that cooling fans are functioning properly?
- Checked that all readers and keypads are operating properly?
- Are all of your exit buttons functioning properly?
- Are your mag locks and door strikes securely mounted and working properly?
- Have you backed up your database?
- Confirmed that all emergency egress devices are functioning properly?
- Are you confident that your backup batteries hold up during a power failure?

Call us today and allow Will Electronics to provide you with further details on how an ESP Maintenance Plan can enhance your security program.

High-Definition & Megapixel Cameras

Find the answers to all of your questions

Are you considering the deployment of HD or MegaPixel cameras? Are you reluctant to engage this technology because of the complexity of choices? We can help by clarifying some common terms and technologies.

Q: Describe the basics of HD and megapixel video, as well as the advantages each offer.

A: Megapixel cameras have one million or more pixels, providing more detailed resolution than a standard resolution network or analog camera. IP-based networked cameras are available in a variety of megapixel resolutions from 1.3 to 10 or more megapixels. While all megapixel cameras are HD or higher resolution, not all HD cameras are megapixel. HD video refers to one of two specific resolutions; either 720p or 1080p, numbers which refer to the pixels of vertical resolution (compared to 480p for standard resolution). Since by definition a megapixel camera has no less than one million pixels, a 720p camera is not megapixel, though it is HD. The small p stands for progressive (as opposed to interlaced) scanning whereby all the lines of each frame are drawn in sequence. With interlaced scanning the odd and even lines of each frame are drawn alternately. Progressive scanning can help increase picture clarity by reducing motion blur.

Network megapixel and HD cameras connect to a networked system using Internet protocol. Megapixel images require additional bandwidth to manage the volume of data, although compression standards such as H.264 can minimize the impact, as can the use of frame rates that are less than real-time (30 frames per second). Because they offer significantly higher resolution, in certain applications, the number of megapixel and HD cameras can be reduced without any loss in information. Additionally, the superior resolution enables better identification of details such as license plate numbers.

Q: How are HD and megapixel cameras changing or evolving to incorporate emerging technologies? What are some of those new technologies?

A: HD and megapixel cameras are providing higher resolution images, but resolution is only one factor in image quality. Intelligence inside the camera can work together with HD image sensors to provide images that are better in several ways. For example, image processing manages the dynamic range of a video image, which is the span of gradations from the lightest to the darkest areas. Intelligence inside the camera uses natural contrast image correction to optimize contrast of each pixel and to faithfully reproduce objects in any area and position, resulting in better images despite extreme lighting conditions. Other image processing technologies can transform dark areas into natural, high-contrast images like those seen by the human eye. Intelligence inside the camera also enables us to install and set up video analytics solutions, using in-camera functions such as face detection, advanced motion detection and auto tracking functions.

New technologies and trends include using higher profiles to reduce bandwidth/storage needs while increasing picture quality. The higher quality processors being utilized enable PoE and eco friendly functions while enabling real-time, multi-stream H.264 megapixel output. The ultimate objective is to take security cameras beyond simple webcam functionality and closer to professional/broadcast cameras. It's technology innovations like these that are transforming and expanding system capabilities while simplifying system design.

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Q: Which applications are best suited for HD and megapixel cameras?
A: Success of many applications in the past has eluded the best system designs involving standard-resolution cameras. Higher-resolution imaging puts many of those applications in reach. Image quality can come into play in applications such as point-of-sale transactions, where the cash denomination must be legible, or for reading suits on playing cards in a casino. In outdoor applications, higher-resolution video can enables license plates to be legible across a dark parking lot. Higher resolutions work together with advanced image processing technologies to enable operators to make out important image details even in dark or back-lit areas. The ability to cover larger areas with fewer cameras (while providing better functionality) can make systems more affordable for easier cost justification and a faster return on your investment. Every advanced system function in the marketplace would be impacted positively by an improvement in image quality.

Q: What sort of special equipment or technologies are required for use with HD and/or megapixel cameras?
A: As mentioned above, bandwidth capacity and storage requirements have to be considered when incorporating higher-resolution video into a system. On the other hand, the use of fewer cameras can translate into an overall need for fewer components and less overall system infrastructure. You will need a video recorder that is capable of recording HD/MegaPixel cameras. Network Video Recorders (NVR) record IP based (HD/MegaPixel) cameras only while Hybrid NVR's can record your existing analog cameras and the new HD/Megapixel cameras.

Q: What percentage of installed cameras today are currently HD and megapixel cameras? Where do you see that number in the next couple years?
A: We are definitely seeing a lot of interest in megapixel camera technologies for all the reasons mentioned above. The number of megapixel cameras sold in the next several years will grow exponentially, and most of the growth will be in the lower-megapixel range (1.3 to 3 megapixels). Higher quality images are a core advantage of IP-based systems over analog systems, so the industry's transition to more IP-based systems will boost interest in megapixel technologies. HD cameras will also do well in some applications, driven by a striking improvement in image quality and frame rate that will appeal to a large range of customers.

Q: What are the hottest trends in HD and megapixel cameras and/or video?
A: You hear a lot about higher and higher numbers of pixels, but the core opportunities for our customers are in the range of 1.3 to 3 megapixel cameras. These cameras provide a noticeable improvement in image quality and can be incorporated into systems easily, especially given H.264 compression that helps to keep bandwidth and storage needs low. In addition, more functions are now being deployed camera-side, such as edge recording and better image processing. This enables the benefits of a network camera without loading down the network for recording. Cameras can now detect faces, optimizing lighting and dynamic range settings for people, in addition to searching for motion or other analytics.

Q: What three questions or considerations should you keep in mind when selecting HD and megapixel cameras?
A:
(1) Weigh product claims carefully and insist on a demo of a real application before committing to a technology.
(2) Default to products that are robust and "tried-and-true," and depend on well-established and dependable supplier companies.
(3) Choose products that work together as an integrated system – you don't have to reinvent the wheel.

Contact your account representative today for assistance in selecting the best solution for your security needs.

November Employee Spotlight

Will Electronics is proud to feature Mary Fitzenreider, Accounting/Customer Service Representative, & Matt Bartlett, Field Service Technician/Installer, for our November Employee Spotlight! See what they have to say about working at Will Electronics.

"Working at Will Electronics since 1998 has been such a pleasure. We are one, big, happy family. I am very grateful to be a part of such a great organization." **Mary Fitzenreider,** *Accounting/Customer Service Representative*

"I am proud to be part of a company that is dedicated to giving it's customers the latest in technology and the best service." **Matt Bartlett,** *Field Service Technician/Installer*

Intrusion Systems Testing:
Does your system actually function correctly?

Intrusion systems can help you protect your assets, but only if it is operating properly. When was the last time you tested your intrusion system? Do you know if your system even works? Sure, it arms & disarms, but does it actually reach the monitoring company when a zone is activated?

A good practice to insure your system is working is for you to test your system on a regular basis. We program our customers' monitored intrusion systems to send a test signal to the alarm monitoring company on a daily, weekly or monthly basis depending on your needs. If a self test signal does not reach the monitoring company, we contact you to let you know. We can then dispatch a technician to remedy the malfunction before it's too late.

Our ESP plans include an annual, on site, preventive maintenance inspection of your intrusion system that checks all zones, keypads & backup batteries along with verification of communication to the monitoring company. **Contact your account representative today for an ESP quote or to schedule an inspection of your system.**