

Product Trends for 2013

a&s examines the latest video surveillance and access control solutions in 2012, which hold great potential in 2013.

BY JILL LAI



VIDEO SURVEILLANCE

MULTI-MEGAPIXEL

2012 was a fruitful year for multi-megapixel technology providers. In 2013, the market for high-resolution image quality keeps getting stronger. With the market becoming more saturated, there will be a price competition in the 1- to 3-megapixel camera segment. One such vendor is Arecont Vision, which launched an affordable 1.3-megapixel camera for value-conscious buyers. "Certain buyers have certain financial requirements. So we provide them this cost-effective solution, but which still is a megapixel camera. We are expanding our product portfolios in megapixel solutions," said Becky Zhou, VP of Sales at Arecont Vision, APAC. Other providers, such as Mobotix, are focused on developing cameras with megapixel counts above 3 megapixels to differentiate their product offerings.

Some early adopters of multi-megapixel technology are confident of its potential for casinos, retails, schools

and commercial buildings in the U.S. "These industries are adopting more high-definition cameras because image detail is critical to their business operations. For casinos being able to read cards and chips gives them the ability to find card cheats or dishonest dealers," said Keith Marett, VP of Marketing and Communications at Avigilon. "Retail stores can't depend on low-resolution cameras pointed at a fixed cash register to capture the transaction any longer, as mobile point of sales terminals are becoming more popular."

"The education market was one of the first to realize the advantages of megapixel technologies as the security and safety of schools for both secondary and higher education is a priority," said Steve Gorski, GM, Americas, Mobotix. "IP-based surveillance systems offer far more benefits than proprietary systems, such as remote access, video analytics, higher image quality and easily scalable systems, for example and the overall return-on-investment is much

greater."

IQinVision produces unique varifocal lens for a mini dome camera with up to 2-megapixel resolution, which is targeted for health care, government and education sector. IQinVision provides a five-year warranty on all its entire line of dome cameras, which remains a rarity in the security industry.

High-resolution technology is a natural fit for LPR/ANPR applications due to the sufficient amount of pixel density for better analytics. However, the 20- to 400-megapixel or gigapixel cameras are mostly used for niche and high-end applications. They are combined with panoramic viewing, for wide-area monitoring in border control or seaports.

SMART APPLIANCES

All-in-one appliances make networking third-party products much easier. The highly fragmented nature of security products makes configuration and integration the biggest headache for system

integrators as they are dealing with different hardware and software. Jeff Whitney, VP of Marketing and Business, Intransa, said, "Intransa's clients just need to determine their configuration needs online or with a phone call. Then, Intransa will configure the NVR/server according to our clients' cameras and VMS. Then, when the appliance goes to our clients, it is ready to use right away."

"Our NVR will send notification of hard-drive failure to customers," Whitney said. "System integrators usually won't check their systems regularly. As soon as the system has problems, they won't take the action immediately. So we leverage our technologies to ensure the health of the entire video surveillance system."

Smart appliances provide the ease of use necessary for SMB applications. Access control, IP video and intrusion detection are combined in compact and scalable solutions to simplify and streamline security procedures. A Tyco solution supports remote monitoring, management and control over mobile devices, which is ideal for SMB owners.

THERMAL CAMERAS WITH VIDEO ANALYTICS

Thermal cameras enable constant surveillance, making them a long-term staple for critical environments but now also for commercial applications. "Recent advances in

thermal camera image processing have expanded their traditional role as night vision cameras to provide 24-hour outdoor security," said John Romanowich, President and CEO, SightLogix.

An important development for thermal cameras is thermal WDR, which produces clear video despite challenging imaging conditions, such as when the camera is aimed toward the rising or setting sun. Other imaging challenges are when very hot objects enter the scene such as a fire, or very hot exhaust from a vehicle engine. Foreground and background image detail remain clear with FLIR WDR thermal cameras, which improve the probability of intrusion detection, and enhances the performance of video analytics.

Thermal cameras combined with video analytics enhance situational awareness, for wide-range detection applications, such as ports and maritime applications. "SightLogix systems can detect intruders despite background water movement or reflections, making them a uniquely capable solution for waterside environments," Romanowich said.

Thermal cameras are deployed for critical infrastructure. In the U.S., government projects are coming back online, albeit fewer than in previous years. "One rapidly growing vertical market in North America is the electric power distribution

sector," said Bill Klink, VP, Security and Surveillance of Commercial Systems for Flir Systems. "The Electric Power Grid is considered critical infrastructure. Therefore, many power companies are using thermal cameras for intrusion detection on the perimeters of their electric power substations and power distribution facilities. Government and industry regulations are fueling the growth of this vertical market."

Klink said commercial market segments are also going to deploy more thermal cameras in the near future. "Over the past three years, many new commercial market segments have adopted the use of thermal security cameras for perimeter intrusion detection, including data centers and municipalities for citywide surveillance," he said.

NEW FACES OF VMS

VMS has become much more standardized — "openness" is a standard feature for many VMS products. Future innovation for VMS will be in mobility, simple and intuitive user interface, and PSIM-like features to enhance situational awareness, found IHS (formerly IMS Research) in its 2012 "World Market for CCTV and Video Surveillance Equipment" report.

Milestone maintained its presence in the upper market tier and continues to expand to the SMB sector. "Milestone launched three user interfaces for the Web, PC and mobile devices — for advanced-to-simplified surveillance needs," said Lawrence de Guzman, Director of Global Sales Operations at Milestone Systems. "Our entry-level VMS manages up to 26 surveillance cameras, and supports a new add-on feature, video push. It



▲ Becky Zhou, VP of Sales, Arecont Vision, APAC



▲ Keith Marett, VP of Marketing and Communications, Avigilon



▲ Jeff Whitney, VP of Marketing and Business, Intransa

allows one to extend mobile capabilities and use a mobile device as a video evidence collector. This feature enables one to push live video from a device's camera directly into the system giving immediate awareness of incidents no matter where they occur."

Avigilon's latest VMS offering united ideas from IT, Web design and video gaming. Meanwhile, taking inspiration from companies with server farms like Amazon, Google and Facebook, its VMS provides crash-proof enterprise server management. This enables all servers to operate as one unit, so there is no single point of failure.

"Two key markets for 3VR in North America are retail and banking. These verticals tend to want a 'black box' solution with the software pre-configured on the hardware, such as a VMS integrated into an NVR or HVR," said Brian Lane, Director of Product Marketing at 3VR. "But, as we expand into other markets, customers tend to want more control over their hardware and the ability to expand the system and grow as needed. Therefore, we are releasing our VMS on COTS hardware beginning in early 2013 to allow more options for our customers. Whether a customer purchases a 3VR VMS with a 3VR NVR or to be installed on their own hardware, we offer analytics such as Facial Surveillance, LPR/ANPR, and

Demographics. The latter provides age and gender information of customers and can be integrated with PoS systems to provide valuable business intelligence."

Analysts estimate that by 2013, more than 50 percent of all video surveillance deployments will be managed by the IT department on the IP network to support the deluge of bandwidth-heavy video data. Cisco introduced its latest IP video surveillance solution to help IT and security teams to implement large-scale video deployments. "As IT departments are tasked with dealing with increasingly large amounts of data — particularly video — the ease of migration of video surveillance to IP continues to accelerate," said Lindsay Hiebert, Senior Manager, Solutions Marketing of Emerging Technologies at Cisco Systems. "Leveraging Cisco's strong network base and know-how, this platform can easily manage more than 10,000 cameras with video recording by using Cisco's end-to-end network video surveillance technologies, to manage and optimize bandwidth across network switches, routers, applications and endpoints."

Genetec, one of the leading VMS providers, has the latest advances in its unified security platform, which blends LPR/ANPR, video surveillance and access control into one platform. Genetec's LPR/ANPR offering is a complete solution with

hardware and software for the police sector and parking enforcement. "We have many clients in the police sector. They require more technology for further law enforcement and investigation. With this solution, police can easily recognize the license plates of criminals and illegally parked vehicles. With the back-office management capabilities of the system, in-vehicle users are able to download all the latest hotlists and updates, providing the forensic information and evidence for later investigation to find the suspects," said Chris Yigit, Product Manager at Genetec.

Honeywell's latest enterprise-level VMS incorporates new features, such as support for wireless readers, new compliance reporting functions, and Web-based alarm and event management capabilities. "Optimizing business by using integrated systems is the new reality for most enterprise-level organizations," said Vince Lupe, Honeywell's Enterprise Segment marketing leader.

PSIM

With the standardization of security and the growing need for multinational management, PSIM has good penetration for high-end projects incorporating IT network systems. Proximex is now the first PSIM vendor to support and adhere to the new Area Control Management standards specification, created by the Physical Security Interoperability Alliance (PSIA) for companies to effectively integrate multiple physical security systems. "Supporting these new specifications will allow Proximex to quickly and easily integrate with other access control, intrusion and video system vendors that also support these specifications," said Larry Lien, VP of



▲ Adlan Hussain, Marketing Manager, CNL Software



▲ Larry Lien, VP of Product Management, Proximex



▲ Brian Lane, Director of Product Marketing, 3VR



▲ Lindsay Hiebert, Senior Manager, Solutions Marketing of Emerging Technologies, Cisco Systems

Product Management for Proximex. "Standards-based interfaces enable information to be more easily shared while PSIM systems enable the relevant information to be combined and correlated for organizations to make more informed security and business decisions."

Next year, we can also see three tiers of PSIM systems evolving, which can be divided by their complexity. Adlan Hussain, Marketing Manager at CNL Software shared some of his findings toward these PSIM systems as follows:

"At the low end there are smaller easier to install systems for SME applications. These are most likely to be provided as a software service and deployed by traditional security installers. These may be described as PSIM Lite and may well be adaptations of ASC or VMS systems.

The next tier is high end PSIM solutions that deliver real business advantage by integrating to operation activities and adding value through increased use of security systems by other departments, be it facilities or

HR. These solutions are likely to be for high security applications, such as critical infrastructure protection or safe city programs.

The last tier is specialist vertical PSIM suppliers who have built up a template product aimed at certain vertical markets. These are likely to be in verticals where the security challenges are fairly fixed, for example retail security, where there is requirement for integration of CCTV,

PoS data, RFID tagging and video analytics."

ACCESS CONTROL WIRELESS

Physical access control is dominated by traditional mechanical locks and online management systems. The latter requires a high investment. Access control products are migrating from mechanical to online solutions with wireless technology, which complements existing mechanical and electronic access control systems. It provides a simple, intelligent way of upgrading them to high-level security and creates many innovative opportunities for many access control vendors. Assa Abloy released its new wireless solution to meet this need.

In the U.S., more than 40 million phones are expected to be near field communication (NFC)-enabled by the end of 2012, according to a report by Market Research. Nearly half of all mobile phones will be NFC-enabled by 2016. Assa Abloy introduced its commercial ecosystem for issuing,

delivering and revoking digital keys on mobile phones with NFC technology. With this ecosystem, mobile phones can replace mechanical keys and access cards and open doors to homes, hotels, offices, hospitals, universities, and industrial and commercial buildings. Ingersoll Rand Security Technologies also successfully rolled out NFC-enabled campus credentials at the University of San Francisco's campuses.

CLOUD-BASED ACCESS CONTROL

Cloud-based access control manages hundreds or even thousands of doors and provides end users with the freedom to remotely control and manage doors from anywhere. Hosted access control solutions are being adopted by large commercial applications, residential buildings and shopping malls. Brivo's solutions can be tailored to the unique security needs of the end users. Property management and multiple-purpose buildings are new, growing markets suited for cloud-based access control, wrote Brivo in a prepared statement.

MULTIFACTOR AUTHENTICATION

For higher-level security clearance in corporate or government buildings, multifactor authentication is a trend. More access control vendors provide more than one single authentication technology for better authentication. Innometriks provides a complete turnkey solution that implements multifactor technologies on next-generation "smart" credentials. Strong identity authentication verifies an individual's identity using biometrics, public key infrastructure and digital signatures, providing greater protection of critical assets and sensitive information.



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