

KNOWLEDGE PARTNER

Doing more with less

Miguel Lazatin, Senior Director of Marketing at Hanwha Vision America discusses the latest trends in video surveillance technology

The phrase “doing more with less” is usually associated with a challenging situation: tight budgets, fewer resources. However sometimes, as in the case of Hanwha Vision’s new SolidEDGE camera system, “doing more with less” is actually the main benefit of this new technology.

SolidEDGE combines a dome camera, an embedded WAVE video management system (VMS) server and onboard Solid State Drive (SSD) storage into one system. “Less” really is the key word here: serverless device, painless setup and endless possibilities.



This type of solution is also a perfect micro-example of a larger trend that's been occurring for several years: maximizing a company's security spending by getting the most – or at least more – out of an initial technology investment.

Security and surveillance are evolving beyond being simply tactical technologies and they will continue to emerge as key business drivers that can contribute to the long-term success of an organization. Security and surveillance devices are being tasked to do more than just monitor and protect. Comprehensive, intelligent surveillance technologies are now regarded as 360-degree, total business transformation solutions.

Beyond protecting and monitoring, these solutions are increasingly incorporating on-board analytics to deliver data that can drive intelligent business decisions and enhance data collection and analytics.

Take multi-sensor camera technology as an example. With one device through one data connection, any facility can monitor and record several key areas with unique fields of view for each. Now add the power of analytics to those same cameras and you're able to do people-counting, body temperature detection, object detection, license plate recognition, behavioral observations and any number of actionable business functions. That's truly doing more with less.

End-“less” possibilities

Hospitals are complementing their cameras' security monitoring performance with intelligent AI-based audio/video analytics, resulting in targeted object detection and classification, which saves time for hospital security teams by speeding up forensic searches.

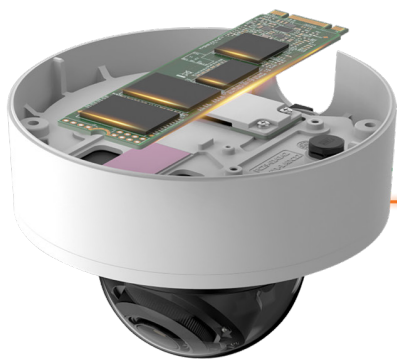
In a casino, analytics can boost the already-strong security capabilities of

a camera by helping casino operators understand guest behavior patterns, determine the busier and slower times of the day, which games are more regularly visited and more. Managers may decide where to place staff depending on traffic. Digital imaging technology with AI capabilities helps with table monitoring and can also go as far as detecting unwanted vehicles through license plate recognition. Data on potential scammers can also be shared with

“**A LARGER TREND THAT'S BEEN OCCURRING FOR SEVERAL YEARS: MAXIMIZING A COMPANY'S SECURITY SPENDING BY GETTING THE MOST — OR AT LEAST MORE — OUT OF AN INITIAL TECHNOLOGY INVESTMENT.**”

other gambling establishments and some technologies can even identify underage visitors, with staff notified to check the player's ID. These advanced video analytics can also be used as investigative tools in the event of a security incident as well as being able to inform staff of a high-profile client arriving on the premises.

In a K-12 school, surveillance technology that is already monitoring and protecting can combine AI with on-board audio and video analytics to help school administrators get a better handle on access control and monitoring of hallways, classrooms and exterior parking lots. For example, knowing which doors visitors use to access and exit the building is important when placing cameras. ▶



If customers have cameras with facial recognition capabilities, then that type of data can also be shared with other educational facilities and some technologies can even identify certain unauthorized visitors prior to them gaining access. Advanced video analytics can alert security when someone is trying to gain access to the premise and cameras' built-in analytics can be used for people-counting to accurately track the volume of people entering or exiting a building, which helps administration personnel to monitor the population on any given day against their attendance records.

The innovation of SolidEDGE

Continuing the "more with less" theme, the SolidEDGE system reverses a previous trend of needing

a separate server, more wires and a larger installation footprint. Additionally, users had to deal with higher installation costs and a system that was hard to manage.



KNOWING WHICH DOORS VISITORS USE TO ACCESS AND EXIT THE BUILDING IS IMPORTANT WHEN PLACING CAMERAS.



The concept with SolidEDGE is allowing smaller installations to operate self-contained systems, while fully realizing the potential of edge storage. People have talked about edge storage for years and

cameras from Hanwha and others have had edge storage for a while now. However, users typically weren't getting the full VMS experience; they had one camera through a web browser or client software.

The idea with SolidEDGE is to get rid of those issues and provide users with the full VMS experience, whether it's a mobile app or a client, without needing a huge expensive server. The unique WAVE Sync allows easy cloud-based remote access and system expansion. In addition, SolidEDGE uses a rugged, industrial-grade SSD as opposed to more commonly used SD cards.

If a franchise has three or four locations, they can now connect them together and have a unified platform to view everything – again without needing big expensive servers to manage and maintain it.

Now it's a plug and play system solution, as opposed to a group of disparate pieces and parts. If users want to change recording settings for one camera, they can.





Ongoing shift to the cloud

The technology behind SolidEDGE also continues the industry's shift to the cloud. For example, a user might have one camera recording locally on the edge to an SD card that is either cloud accessible or simply throwing

“**SOLUTIONS ARE INCREASINGLY INCORPORATING ON-BOARD ANALYTICS TO DELIVER DATA THAT CAN DRIVE INTELLIGENT BUSINESS DECISIONS.**”

video to the cloud over time. The SolidEDGE solution is unique in that, while most systems are focusing on edge recording by itself or the cloud, Hanwha is doing both by putting the VMS on the edge.

Again, this saves the user time and costs and it's easy for a “non-

technical” person to manage. It's a user-friendly, consistent interface that can be managed just like any other WAVE system, without having to learn a whole new architecture or platform.

Who can use SolidEDGE? The potential applications can cover any type of organization, but it's especially effective for smaller operations with multiple locations: coffee shops with one or a few sites throughout a city, gas stations or conveniences stores – any type of venue that might only need two or three cameras now, but also needs the ability to quickly and easily expand when growth occurs.

Here's a common scenario: a coffee shop with one location would have their main SolidEDGE camera at the register and then five more cameras – which could be of varying types and form factors – located throughout the building and connected to the primary edge recording device; maybe there's one for the back door, delivery entrance or employee break area. However,

“**SECURITY AND SURVEILLANCE ARE EVOLVING BEYOND BEING SIMPLY TACTICAL TECHNOLOGIES.**”

they all act as one system and are all viewable through one dashboard in WAVE Sync.

Now, as that same shop grows and expands to multiple locations, SolidEDGE grows along with it.

Each shop can still have their one primary SolidEDGE camera at the register and then for the additional cameras, the user can perform a “merge.” Through the cloud, the solution connects multiple sites together into one system. Depending on the use case, they could all be viewable through one pane of glass in the WAVE client, which has a cloud layout that can bring multiple servers into one layout view.

Doing more with less – it's not always a bad thing.

For more information, visit www.hanwhavisionamerica.com. ■

About the author

Miguel Lazatin is Senior Director of Marketing at Hanwha Vision America, responsible for brand strategy, product marketing, digital marketing, advertising and public relations. Miguel has a proven track record of success driving the growth of global electronics and security companies through effective product launch and market development strategies. Prior to joining Hanwha Vision, he held a range of product, sales and corporate marketing roles at Sony Electronics and Panasonic Security Systems. Miguel holds an MBA from Boston University's Graduate School of Management.



INDUSTRY EXPERT

THE FIRST TRUE SERVERLESS CAMERA SYSTEM

In this exclusive “first look” Q&A, Hanwha Vision America’s Senior Technical Marketing & Training Manager, Aaron Saks, highlights several of the SolidEDGE system’s key features and capabilities

The Hanwha Vision SolidEDGE camera system is a perfect example of new technology meeting a market need, at a time when security and surveillance solutions are being pushed to do more than just monitor and protect.

The cloud-managed solution delivers multi-camera recording, remote access, on-premise security system management and ease of use at levels of efficiency, cost-effectiveness and scalability previously unavailable.

At its core, the system combines a dome camera with an onboard ruggedized Solid State Drive (SSD)

storage and an embedded WAVE video management system (VMS) server. From that solid foundation, the possibilities are endless for any organization – especially smaller operations with multiple locations – to easily customize and grow their surveillance systems based on their specific needs.

What are the benefits of using SSD storage?

This camera system is the first to truly use onboard solid state drive storage, versus available alternatives such as SD cards or hard drives. Small-format hard drives typically use spinning drives that heavily consume power

and are also not ruggedized for harsh environments. Security professionals have been using SD cards for years and while they perform to a degree, they also have a reliability issue. In other words, if the card malfunctions, often the end user doesn't know it happened right away and suddenly they've lost all their video.

We purposely chose a storage solution that is ruggedized to function as a stable security camera whether it is installed on the side of a building or in a vestibule where it's regularly exposed to the elements and temperature variations. We're using a higher throughput storage solution that delivers higher

performance and greater reliability than just an SD card.

Describe how this modular system offers users the most options for growth and scalability

The system is designed to be modular to allow users to customize and scale their systems as requirements evolve. For example, SolidEDGE is currently available in a one terabyte or two terabyte drive capacity.

With remote access and cloud connectivity, cybersecurity is often a concern. How does the system address that?

The SolidEDGE system delivers full edge recording, remote access and cloud connectivity – all performed with the peace of mind that comes with enhanced cybersecurity. Traditionally, with a standard camera, users can insert a high-capacity SD card and record directly from the camera. The only way to play or view the footage would be through a web browser using procedures like port forwarding, which isn't the most secure method.

Opening a network port on a router allows remote access to a service, which in this case, is the camera's web server. Remotely accessing that

camera means editing a router's firewall rules; in other words, leaving that port open for anyone to find and connect to it. The more ports you open, the greater your risk for network intrusions.

In this case, the SolidEDGE camera makes an outbound encrypted connection to the cloud, without having to leave the service open. Now, because we're using WAVE Sync to establish a secure



THE SOLIDEDGE CAMERA SYSTEM RUNS THE FULL CAPABILITIES OF HANWHA'S WAVE VMS ON THE EDGE. ”

cloud connection. If an attacker tries scanning the network for vulnerabilities, they're not going to see any ports that are always open.

What are the benefits of having full WAVE VMS capabilities at the edge?

Traditionally, multi-camera systems have required some type of client software, which was most often a thick interface. That didn't



Aaron Saks

provide the full VMS experience, wouldn't allow global management and instead of a true "system," it was more a group of disparate pieces.

The SolidEDGE camera system runs the full capabilities of Hanwha's WAVE VMS on the edge. A single SolidEDGE camera can connect to and record up to five additional cameras for a total number of six cameras on each EDGE system. Also, up to 30 servers can be merged with SolidEDGE through WAVE Sync, giving users incredible flexibility.

One example of a real-world scenario is putting a primary SolidEDGE camera over the register in a coffee shop and then having another camera positioned towards the front door and building from there with cameras at various positions. Other systems would have to put another edge recording camera at each location. Instead, what we can do is put any of our camera form factors at that front door and be able to record back to the primary SolidEDGE camera. That's how it easily becomes a camera system with multiple cameras attached to one main storage location.

For more information about SolidEDGE or the full line of Hanwha Vision solutions, visit www.hanwhavisionamerica.com. ■





HANWHA VISION UNVEILS SOLIDEDGE

A cloud solution with embedded WAVE VMS powers multi-camera recording, remote access and on-premise security system management

Hanwha Vision has launched SolidEDGE, the first true serverless camera system with onboard Solid State Drive (SSD) storage and an embedded WAVE VMS server. This unique cloud-managed solution addresses the need for efficient, scalable and cost-effective surveillance solutions for security operations requiring multi-camera recording, remote access and on-premise security system management.

The SolidEDGE camera is available in two models, the PNV-A6081R-E1T (1TB onboard storage capacity) and PNV-A6081R-E2T (2TB) – both delivering high-quality, reliable video surveillance without a complicated setup.

Further setting the system apart is its customizable and flexible system structure, enabling easy remote access and management of on-premise security systems. Each SolidEDGE camera can connect and record up to five additional cameras, bringing the total number of cameras in a system to six, including the original SolidEDGE camera's video stream. Users can also merge up to 30 SolidEDGE systems through WAVE Sync. The WAVE Sync feature also keeps systems up to date with regular software and security updates.

The SolidEDGE system's unprecedented level of scalability and flexibility allows any organization, especially smaller operations with multiple locations, to easily customize and grow their

surveillance systems based on their specific needs.

"Customers are looking for practical, convenient and efficient ways to conduct surveillance," said Miguel Lazatin, Senior Director of Marketing, Hanwha Vision America. "Traditional video surveillance systems require a separate server to manage cameras, events, recording and playback, which can quickly become

“**EACH SOLIDEDGE CAMERA CAN CONNECT AND RECORD UP TO FIVE ADDITIONAL CAMERAS.**”

costly and time-consuming to set up and maintain. With the SolidEDGE serverless camera system, organizations can take control of their surveillance and cost-effectively customize a solution that makes the most sense for their operations.”

Additional features

SSD status management: the built-in rugged SSD of the SolidEDGE camera offers high-speed and reliable storage for video data. The SSD status management feature, which can be accessed from the camera web viewer, provides information on the health of the SSD drive, ensuring the system runs smoothly.



Enhanced cybersecurity: the SolidEDGE camera delivers next-level cybersecurity – TPM 2.0 (FIPS 140-2 level 2 certified), device certificate (Hanwha Vision Root CA, pre-installed), secure OS/boot/storage and verified FW forgery.

Reinforced durability: a metal-shielded RJ-45 terminal and enhanced grounding frame structures protect the camera from transient voltage (lighting, static electricity). A hard-coated dome bubble enhances resistance to scratches from external elements (sand, handling) and minimizes degradation of resolution due to scratches.

Improved weather resistance: a built-in AIR vent prevents condensation and maintains performance over long-term use and storage through water vapor control. It also can prevent damage and stress on the seals and internal components through pressure equilibrium in the product. ■