

Surveon Deploys 3,000 Highly Reliable 3 Megapixel Cameras to Safeguard Southern Taiwan City

To ensure the protection on lives and properties of citizens, city surveillance is the most direct and productive method for any government. However, due to a large geographic coverage with thousands of cameras, the installation, integration, stability and reliability issues are very difficult to overcome. In this case, Surveon has not only completed a professional project with 3,000 IP camera installations, but also met the demanding requirements of high stability, reliability and an extremely low rate on the return merchandise authorization (RMA).

Customer

A major city in Southern Taiwan planned to upgrade its inner city surveillance system to provide safety and security for its population of 2.8 million in 38 districts. The project would include upgrading to megapixel solutions that can be fully integrated with the control center, branches, sub-station junctions and the existing IT infrastructure.

"It's a must for traffic surveillance to have high image quality and clear visibility even under low light conditions. Besides that, reliability is our top concern," said Tony Chan, the city surveillance project manager. "We have 3,000 cameras installed on the streets. A 5% failure rate in any aspect would account for 150 cameras to be repaired and a very high cost for us. Surveon's industrial designed and 100% own manufactured cameras have made us feel confident about this project. The cameras are now being used for a few years with an average failure rate of less than 0.03% which is really impressive," said Chan.

Challenges

High Reliability

To maintain a project with 3,000 cameras spreading across the city is not an easy task; any RMA causes high costs for the SI and inconvenience for the customer. Especially when lots of cameras are installed in the intersections and at higher points, it takes much longer time and more resources for the SI to evaluate the situation and conduct the repairs.

Wide Monitoring Area

The widely distributed network areas, scalable architecture and maintenance issues (e.g. hard to go up to the poles to repair cameras) were the challenges the SI first faced in this project. The heat, humidity, and temperature changes in the outdoor environment were also obstacles to overcome.

Complex Lighting Conditions

For city surveillance, it is required to have every corner monitored round-the-clock, rain or shine, to protect people, prevent potential security threats and provide evidents whenever needed. However lighting changes in the outdoor environment easily affect the camera performance; poor lighting causes low visibility while strong lighting results in overexposed images.

Customized Features

There are usually many special requirements and restrictions for city surveillance; for example, limited bandwidth but stable streaming required, different lighting conditions but clear visibility demanded, remote storage, offline recording and so on. The SI would encounter these difficulties when finding the qualified vendor support.



Summary

Customer:

A major city in Southern Taiwan

Project Needs:

- Good image quality
- Clear visibility at all times
- Highest reliability
- Lowest failure rate
- Outdoor surveillance supported

Surveon Solutions:

Professional features designed for city surveillance:

- 3 megapixel cameras
- Reliable performance
- Excellent image quality
- Clear visibility even under low light conditions
- Offline recording
- Advanced image settings
- Network detection
- iSCSI supported

Surveon Solution Benefits:

- Certified end to end solutions, from cameras, NVR, VMS, to storage
- 120-day megapixel recording
- Hardware RAID NVR ensures reliability
- Exemplary performance, extremely stable HD and zero frame loss
- Easy integration
- Centralized management
- Real-time VI detection
- Smart investigation
- 100% in-house design and production
- 3-year warranty

Solutions

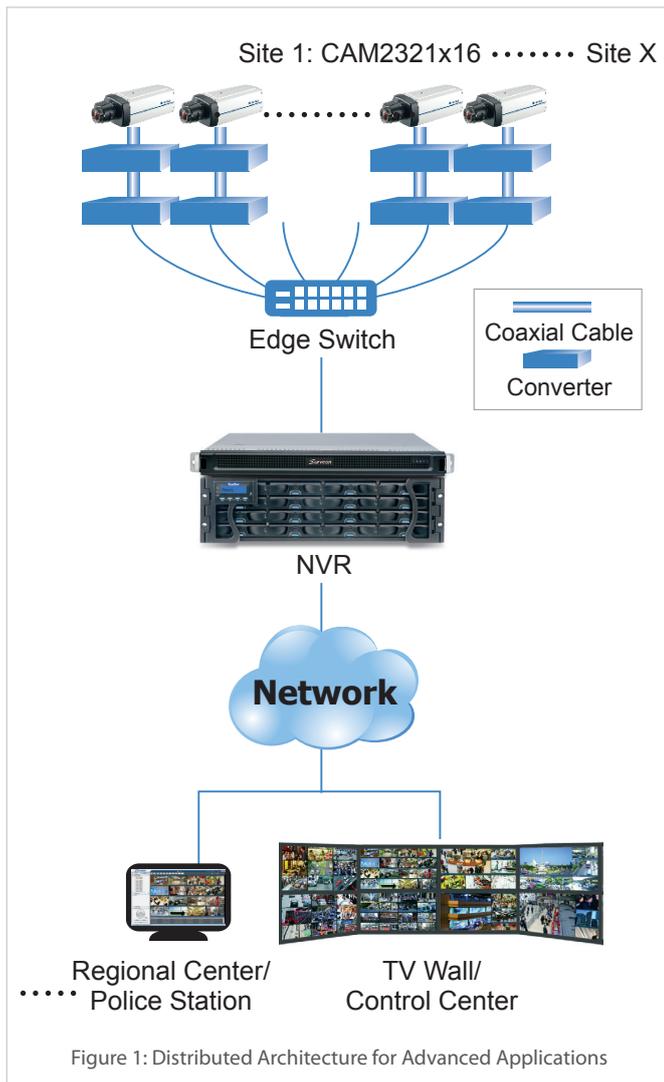
3 Megapixel Cameras

Surveon 3 megapixel cameras provide the high image quality with low light performance. With a maximum 2048x1536 resolution, Full HD real-time video recording, and features such as DC iris and WDR, the cameras are the ideal solutions for high-level security applications.

Furthermore, Surveon's 2nd generation 3 megapixel real-time HDR cameras have extended the real-time performance to 3 megapixel at 30 FPS. The series also features HDR with over 100dB, giving installers a high quality and real-time performance well beyond what the standard WDR and DWDR can offer. Along with other advanced functions including H.264 high profile, ROI video cropping, enhanced 2D/3D noise reduction, and edge enhancement, Surveon 3 megapixel real-time HDR cameras are the excellent choice for professional applications such as city surveillance.

Industrial-grade Design

Every Surveon's product is in-house designed and manufactured with industrial-grade components and backed with 3-year warranty. More than 300 hours of verifications and validations have been carried out before production in the self-own, ISO 9001 and ISO 14001 certified production site. Moreover, Surveon's products are



under strict examinations, full QA processes and 8+-hour-burn-in tests before any delivery. "Through high quality production management system, the quality of every product can be assured. We exceed customers' expectations by providing our partners with reliable solutions," said Robert Yeh, the QA and manufacturing manager of Surveon.

Professional Features

• Offline Recording

To compensate the limited bandwidth issue, Surveon cameras are equipped with the SD slot and the offline recording capability which can automatically store the video to the SD card during downtime and resend the video to the NVR when the network is recovered. In addition, the balance of bandwidth between live view and offline video resending can be achieved with network bandwidth control.

• Advanced Image Settings

Two profiles are available for different image parameters on the subjects of iris, shuttle speed, AGC, brightness, contrast, and DNR levels. The two profiles can change automatically with the day and night settings to ensure a fixed image quality under different lighting environments.

• Network Detection

This function identifies the best firmware configurations for the network environment.

• Internet Small Computer System Interface (iSCSI) Supported

With iSCSI, recording can be made directly without any integration problems for future storage expansions.

Benefits

Excellent Image Quality

Surveon 3 megapixel real-time HDR cameras deliver the excellent image quality in high speed motion or non-motion videos. Whether it is in the daytime or at night, the two profiles of image appearance parameters ensure clear visibility. In addition, the advanced ROI engine allows users to create eight independent regions, each with different video quality and frame rate. The lower bit rates and advanced ROI can reduce the network bandwidth and storage demand required for megapixel surveillance, keeping a good balance between image quality and bandwidth.

High Reliability, Low RMA

Surveon's high product quality can be proved by its extremely low RMA rate, and reliability can be assured. "Surveon is one of the few manufacturers bringing truly end-to-end proven solutions with in-house design and manufacturing to ensure the best quality, and it has answered our demanding needs for city surveillance," said Chan.

About Surveon

Surveon Technology offers end-to-end network video surveillance solutions that showcase our expertise in professional camera design, hardware RAID NVR, high availability video storage, embedded firmware and video management software. All Surveon products are designed in-house and manufactured on our ISO 9001 and ISO 14001 certified production site to ensure the highest quality for our partners.