Surveon End to End Megapixel Solutions with Enterprise RAID Storage Secure New Taipei City

The IP video and network technology development provides a good foundation for advanced urban surveillance to improve social order, crack down on crimes, and protect the lives and property of citizens. Due to the large geographic coverage with thousands of cameras, installation, and provisioning, city surveillance puts strong emphasis on the integration, stability and reliability of the system.

Customer

New Taipei City, Taiwan, planned to upgrade its inner city surveillance system to provide safety and security for its population of 3.9 million in 29 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.

Challenges

Wide Monitoring Area

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

Limited and Unstable Bandwidth

In this project, ADSL from the public network is used with a VPN connection to interconnect hundreds of cameras spread out in the city. The limited and unstable bandwidth makes it difficult to control the data transmission.

Recorded Video Data Retention

The data retention of recorded video, system scalability and robust support for hundreds of megapixel cameras are particularly important to the planning and acceptance of government security projects.

Integration with Hundreds of Channels on Cameras, NVR and Video Storage

The extremely complicated integration and verification tasks not only consume many invisible resources, but also contain other potential risks of integration. For example, when video recording is malfunctioning, which device is the cause? Camera? VMS? Or is it storage performance, not the device, that is degrading? Sometimes the integration of VMS and PC causes the system to be unstable too.

Solutions

Full HD Megapixel Cameras with Individual ISP, High Light Compensation and Low Light Sensitivity

Built-in with the advanced ISP, Surveon CAM2311 offers WDR, HLC, 3D noise reduction, and defog functions. With good low light performance, the CAM2311 is the ideal choice for professional outdoor surveillance projects. All of Surveon megapixel cameras are with industrial-grade components, in-house design and 3-year warranty to ensure product reliability for long-term operations.

Offline Recording

To compensate the limited bandwidth of the public ADSL, 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. When the network is recovered, the video is resent to the NVR. In addition, the balance of bandwidth between live view and offline video resending can be achieved with network bandwidth control.

Video Storage Solution with Enterprise RAID Subsystem

With hundreds of channels, recording performance and reliability are the main challenges for megapixel projects. Surveon NVR series offers two solutions: iSCSI and DAS systems. With this high performance combination, maximum 64 channels and 1920 FPS can be reached.

Benefits

The project is built on a stable network platform optimized with Surveon Full HD cameras and RAID storage systems. Excellent image quality allows police units to recognize crucial details such as license plates, even in low light environments. Furthermore, Surveon cameras can handle harsh outdoor conditions including over 35°C temperature and 90% humidity during the summer.

"There are many aspects for consideration in a megapixel project, including integration of cameras, VMS, servers and storage and high risks," said Vincent Hsu of TDI-Megasys, surveillance project manager of New Taipei City. "A 5% failure in any aspect would result in a 20% failure rate in the whole system. Surveon is one of the few manufacturers bringing truly end-to-end proven solutions with in-house design and manufacturing to ensure that the system from hundreds of cameras to hundreds of TB storage is fully integrated, stable and can be easily managed."

About TDI-Megasys

TDI-Megasys is a professional integrator with 20 years+ experience in high-end security projects. From analogue to IP, the company has accomplished successful cases worldwide.

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. For more information about Surveon, please visit our website at www.surveon.com.

Complete Megapixel Solutions

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TDI-Megasys, surveillance project manager of New Taipei City