Surveon 3 Megapixel Real-time HDR Cameras Optimize Retailers' Profitability

For spacious retail stores, security is one of the main concerns next to tough challenges, fierce competitions, low margins, and losses. Using Surveon's end to end megapixel solutions, including 3 megapixel 30 FPS HDR cameras, 5 megapixel 360° fisheye cameras and intelligent video management, retail security managers can easily upgrade to advanced surveillance solutions to have loss prevented, profitability improved, shrinkage reduced, and better services brought to customers.

Customer

House Green is a home improvement supplier, focusing their business on providing home repairing, furnishing, remodeling, and organizing service packages in Taipei, Taiwan. With more than 2,000 products, including appliances for kitchens, bathrooms, and living rooms, House Green has established four stores and planned six more in New Taipei City to provide nearby services. Just like any other retailers, thousands of people, goods, and transactions are involved in its daily operation. In order to well manage security of all the chain stores, House Green surely needs a surveillance solution with high efficiency and easy scalability.

Challenges

"Operation efficiency is the key strategy for House Green to stand out in this competitive market. In addition to the Point of Sales (POS) and ERP system, we need a security solution, not just any passive recording establishment, to elevate the chain store management," said Roger Lo, Vice President of House Green. Employee thefts, shopliftings and damages are great cost factors for vast and bustling chain stores. Putting these factors into consideration, megapixel surveillance, with more details and wider monitoring ranges, is the obvious answer for House Green. "Besides daily chain store management, our business continues to expand; we are looking for a scalable and reliable system to help us achieve various integrations and business intelligences." Lo continued.

Solutions

Surveon Industrial Grade Megapixel Cameras

The main entrance, cashiers, display areas and warehouses are the key monitored sections in the retail store. Surveon's megapixel cameras are deployed in these locations, including CAM2441 3 Megapixel Real-time HDR Camera, CAM7511 5 Megapixel 360° Fisheye Camera, and CAM1320 Compact Full HD Dome. The CAM2441 is used at the main entrance, owing to its market-only 3 megapixel 30 FPS real-time performance and 1.5 times more coverage compared to a conventional 2 megapixel camera. In addition to provide clearer and wider images of the surrounding traffic and people flows, the built-in HDR ensures clear images for outdoor surveillance even under complicated lighting conditions. The CAM1320 was selected for the cashier, packaging and consulting areas, due to its compact, stylish design and built-in microphone. While it usually takes 2~3 traditional dome cameras to monitor the whole area, with one CAM7511 360° fisheye camera, the entire central display area is covered without any blind spot. Any other store application can find a fitting selection within Surveon's full line of megapixel cameras with more than 30 models, for instance, CAM2331P Full HD P-Iris cameras for garage monitoring, and CAM3361 Full HD WDR outdoor bullet for warehouse surveillance.

Summary

Customer:
House Green, a home improvement retail chain in New Taipei City, Taiwan

Store Needs:
- Proven end to end solutions for megapixel recording
- Support 24/7 recording in chain stores
- Support outdoor surveillance
- Enterprise VMS
- High efficiency and active management
- System scalability and integration
- Less camera installations
- Reduce costs for system maintenance

Surveon Solutions:
Highly integrated solutions with the following:
- CAM2441 3 megapixel real-time HDR camera
- CAM7511 5 megapixel 360° fisheye camera
- CAM1320 compact Full HD dome
- SMR8000 hardware RAID NVR system
- Surveon video analytics

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

![Surveon Complete Megapixel Solutions logo]

Surveon's Video Management Solutions

All Surveon's NVRs are built-in with the premium-grade storage subsystem. The enterprise RAID system provides high I/O, large capacities and overall system stability necessary for scalable projects and its advanced VMS incorporates plenty of functionalities applicable for any professional security project. The 8 bay hardware RAID SMR8000 NVR system, with advanced VI such as virtual matrix, multi-client, e-Map, advanced live view and playback, really lives up to House Green's expectations: not merely a recording box but a proactive and powerful security system to strengthen House Green's in-store operation efficiency.

"To have all recording videos saved in the recorder is the basic yet most important requirement for customers," said Casper Wu, Product Manager of Surveon. "However, it is also the most difficult task since nowadays all projects require 24/7 non-stop megapixel recording. Adapting the commercial off-the shelf PC/NVR solutions, customers would have to face the integration, reliability and performance issues." Surveon's enterprise RAID NVR series, on the contrary, has a proven record of 200,000 installations worldwide and is efficient to support continuous megapixel recording at any scale.
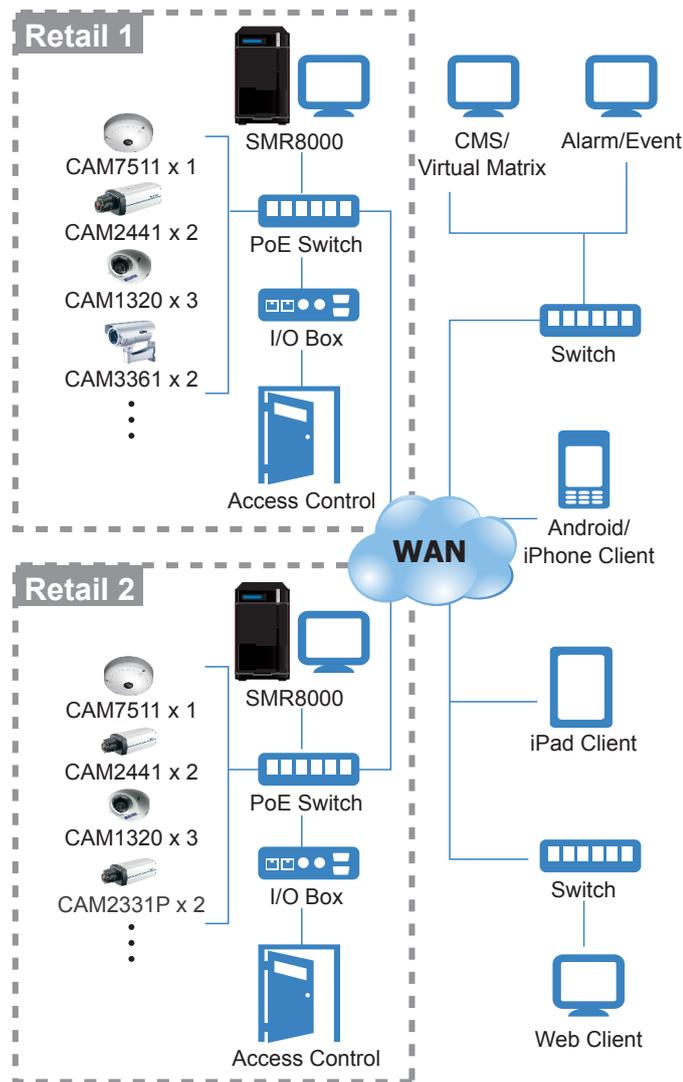

Figure 1: Distributed Architecture for Advanced Applications

The built-in real time video analytics engine helps House Green improve the retail operation efficiency. For example, the Intrusion Detection can be served as an instant service helper. When customers are stepping in certain areas for more than 15 seconds, the staff will be notified and go to provide further services to boost sales. As for the People Counting feature, it can be used as an indicator, showing hot and cold traffic areas so that the staff can be better allocated, and an optimal merchandise placement can be ensured. The Virtual Fence can be used as an active alarm, optimizing the security and asset protection in the store.

Benefits

Better Monitoring with Less Cameras

Surveon's CAM2441 offers wider coverage and thus saves costs by reducing camera numbers; its HDR and 30 FPS performance also meets the outdoor surveillance requirement in this project. In addition, one CAM7511 fisheye camera is able to monitor the entire store and saves the troubles of too many camera installations.

Simple Integration, Proven Solutions

Surveon's complete solutions helped House Green deploy a highly integrated solution. The project manager was able to significantly reduce the risks and installation complexity often encountered in traditional system integration. For example, the SMR8000 system offers support for eight hot-swappable disk drives and RAID protection, decreasing installation efforts and making maintenance extremely easy. The embedded hardware RAID5 accelerator ensures that the multi-channel megapixel cameras have access to the required bandwidth when recording images, reducing the instability often seen when systems are conducting high I/O operations for extended periods of time.

Enterprise Video Intelligence for Management Optimization

Surveon Video Intelligence (VI) functionalities not only improve safety and security, but reduce inventory shrinkage, control stock, optimize merchandising and operation, study employee and customer interactions, and therefore business intelligences can be achieved.

End to End Solutions

Surveon provides various megapixel product packages, ranging from different camera segments to resolutions and all kinds of NVR and storage systems. All of them are based on the same VMS framework, allowing partners to keep the investment on existing projects for expansions.

"With Surveon's complete solutions, it's possible for us to have situations intelligently interrogated, loss prevented, profitability improved, shrinkage reduced, and better services for our customers," said Lo.

About Surveon

Surveon Technology offers end-to-end network video surveillance solutions that showcase expertise in professional camera design, hardware RAID NVR, high-availability video storage, embedded firmware and video management software. All our products are designed in-house and manufactured at ISO 9001 and ISO 14001 certified production sites. Our highly integrated, proven, and reliable product lineup reduces integration effort and compatibility risks, and maximizes profits for our security partners.