Arecont Vision Boosts Security and Operations at General Trading Company

New Surveillance System at Wholesale Food Distributor Uses 350 Megapixel IP Cameras
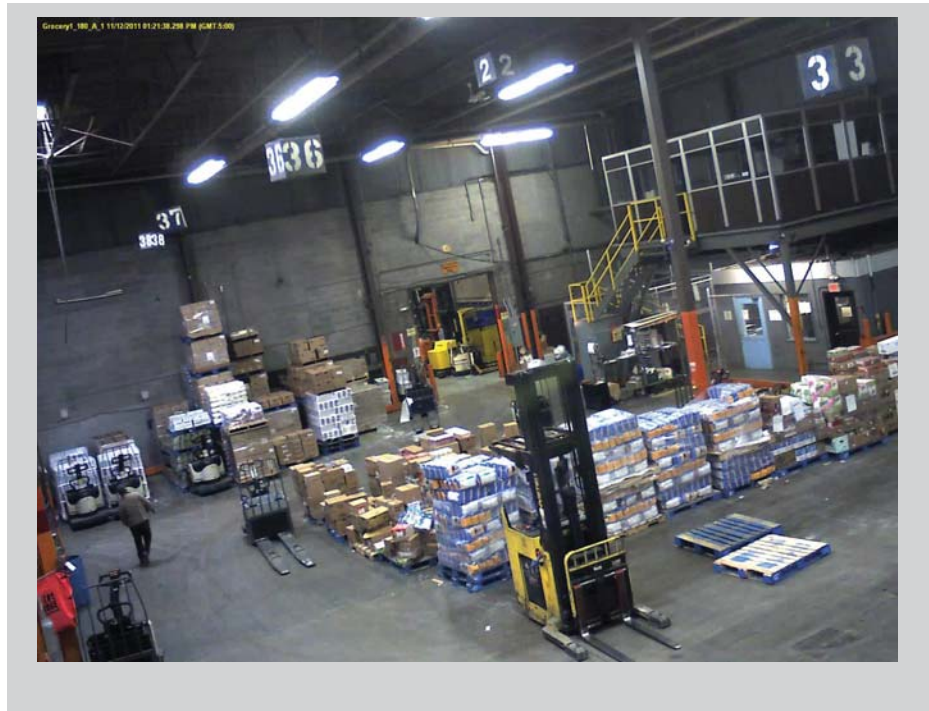

CUSTOMER

General Trading Company is a private wholesale food distribution company that has been in business for more than 65 years. The full-service grocery and dairy distributor, wholesaler and exporter carries more than 10,000 grocery and 2,000 dairy items. In addition to brand name products, General Trading Company's private labels are the "Parade" and "Better Valu" brands. Its 350,000 square foot distribution center in Carlstadt, NJ, includes both dry and refrigerated areas.

CHALLENGE

Previously, surveillance of the General Trading Company distribution center was provided by 90 VGA analog cameras. However, Frank Covello, Director of Security at General Trading Company, sought to expand coverage of the facility. Specifically, the company needed a system that could provide an overview of employee performance and productivity, the ability to review inbound and outbound shipments for quality control, and the capability to review door access control events using video.

MEGAPIXEL SOLUTION

Rather than add to the existing camera system, General Trading Company opted to do a "rip and replace" installation. The analog cameras and servers were completely removed and 350 new Arecont Vision IP megapixel cameras were installed in their place.

Megapixel IP cameras provide better picture quality, and IP connectivity lends itself more to an enterprise network video recorder (NVR) system – all cameras can be viewed from the same program rather than operators having to go to separate analog servers to view live video and history. General Trading Company chose Arecont Vision cameras in part because of their H.264 compression,
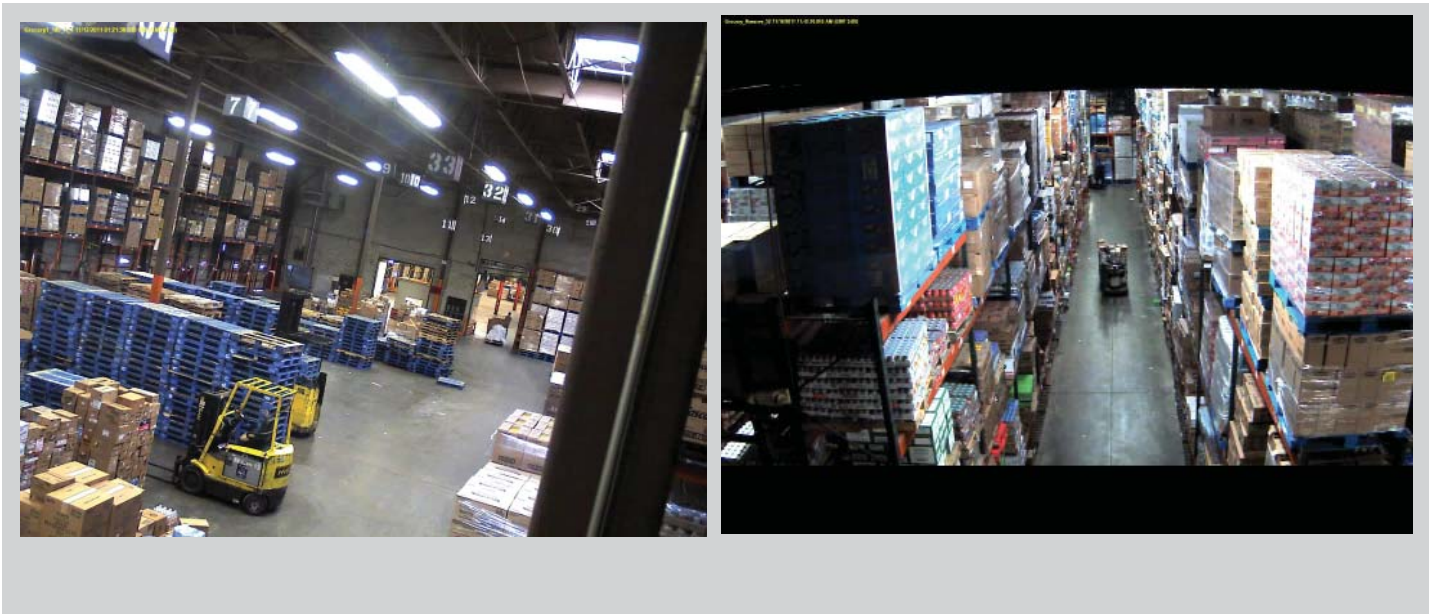
AV10005

10 Megapixel H.264 IP MegaVideo® Camera
Key Features
- 3648(H)x2752(V)
- 0.3 Lux @ F1.4
- H.264 (MPEG Part 10) and MJPEG
- Dual Mode: 10MP or 1080p Full HD mode
- Forensic Zooming
- Motion detection
- Multi-Streaming

which minimizes bandwidth and storage needs while providing quality comparable to motion JPEG, according to Gene Kowalski, network engineer. In addition to better image quality, the IP system allowed the company to store 30 days of video centrally using iSCSI IP-based storage. The company also realized it could install a single megapixel panoramic-view camera instead of four individual cameras. Having determined that Arecont Vision equipment offered the best value and overall picture quality, Mr. Covello and Mr. Kowalski designed the new system and Arecont Vision worked closely with them to understand the needs specific to the business. "It has been a new venture for us and for Arecont Vision," said Mr. Covello.

An Arecont Vision AV10005 MegaVideo® camera provides quality assurance in the pallet reconciliation area at General Trading Company. The AV10005 is an H.264 dual mode 10MP/1080p camera that combines the resolution of a 10 megapixel camera and a full HD (1080p at 30 frames per second) camera into one system. Merging the functionality of two cameras, it provides the unique ability to operate in either full HD mode or at 10 megapixel resolution (3,648 x 2,752 pixels), offering 33 times the resolution of standard-definition cameras.

For situational awareness in the warehouse loading docks and parking and truck lots, General Trading Company uses Arecont Vision's SurroundVideo® AV8185, an 8 megapixel panoramic view camera that offers 180-degree images using four 2 megapixel sensors. Enclosed in a 6 inch dome on an IP66-rated environmental chassis, the camera can be surface-mounted, pendant-mounted or installed in a ceiling. The camera provides up to 6,400 x 1,200 pixel images at 5.5fps or can be set for lower resolutions at higher frame speeds, such as 1,600 x 1,200 pixel images at 22fps or 800 x 600 pixel images at 88fps.

Arecont Vision's AV5105 MegaVideo® camera is used in the warehouse aisles and on the loading docks to provide detail of pick selection and pallets leaving through truck doors. The 5 megapixel camera provides 2,592 x 1,944 pixel images at 9fps. Also ensuring pick selection in the warehouse aisle are Arecont Vision AV3105 cameras, supplying 2,048 x 1,536 pixel images at 15fps.

Arecont Vision AV2815 MegaVideo® cameras, which are 1080p compact H.264 IP cameras delivering 24fps of full HD 1080p video, view the warehouse aisles for pallet reserve location. Covering the offices are recessed domes and Arecont Vision AV1315 MegaVideo® Compact cameras, which provide full HD 1080p video images at 32fps. Arecont Vision AV1355 1.3 megapixel H.264 MegaDome® network (IP) cameras provide 1,280 x 1,024 pixel images at 32fps to cover cafeterias and entrance/exits. Outdoor parking lots are covered by Arecont Vision's AV2825IR, a full-HD mode, 1080p H.264 MegaView™ IP all-in-one bullet-style camera that includes an infrared (IR) illuminator.

The cameras incorporate Arecont Vision's MegaVideo® image processing at 80 billion operations per second. Features include forensic zooming to zero-in and view the details of a recorded image, motion detection and image cropping. The cameras can output multiple image formats, allowing the simultaneous view-

ing of the full-resolution field-of-view and regions of interest for high-definition forensic zooming.

ExacqVision provided the NVR software. Six servers are used for centralized monitoring. Video signals are transmitted across a 10-gig fiber backbone and Cat-5E camera connections using Power over Ethernet (PoE) and Dell Powerconnect switches. Disk storage uses a white box iSCSI array.

MEGAPIXEL BENEFITS

Megapixel cameras provide better image quality and a larger field-of-view. Megapixel imaging enables the company to identify and view any case, pallet or person with clarity beyond the capabilities of the previous VGA system. The new system at General Trading Company also provides efficiency benefits related to time and attendance, safety, production, quality assurance and customer service.

The new system enables General Trading Company to boost quality control by making sure the correct case is selected using the Arecont Vision system tied into voice picking timestamps. Reviewing the truck door video history confirms the number of inbound and outbound pallets. To ensure safety, the Arecont Vision system enables review using clear video images of accidents indoors and in the truck and parking lots. To promote quality and to deal with customer service issues and requests for customer credits, video history allows General Trading Company to review the condition of a product when it left the building and address employee training, if necessary. Related to time and attendance, video history enables supervisors to review productivity based on timestamps from the warehouse management system.

Confirming a fast return on investment is easy for the General Trading Company system. Specifically, the use of 350 Arecont Vision megapixel cameras – ranging from 1 to 10 megapixels in im-

age size – provides the same coverage as thousands of conventional cameras. Also, the video system has taken the place of – and saved the expense of – several security personnel who would otherwise have to be stationed throughout the building 24 hours a day.

Additional benefits of the system include improvements in employee productivity and the ability to identify causes for unproductive time. As a tool for safety education, the system has helped to identify and eliminate safety violations. The video also helps to control the opening and closing of doors, and is used as an investigation tool for accidents that happen in the parking and truck lots.

Arecont Vision
megapixel technology...
beyond imagination