



MOBOTIX

CASE STUDY

Iowa 80 Group – High-Resolution Coverage Of Each Of Their Truck Stops

The Iowa 80 Group, a chain of the largest truck stops in the world, has been serving the professional truck driver since 1964. With locations in Iowa, Missouri and North Carolina, the Iowa 80 Group provides a variety of amenities, which include everything from fuel, truck accessories and truck washes to chiropractic, dining and hair-cutting services, that truly make its locations an oasis for truck drivers to

relax and refresh in a single stop. Iowa 80 Group prides itself on understanding that a driver's time literally is money, and the company strives to operate quickly and efficiently so truckers can get back on the road as soon as possible.

reduce liability concerns. However, the poor image quality of the analog cameras failed to control liability fraud or theft, as company officials couldn't identify shoplifters and employees due to the grainy image quality. In addition, the system wasn't user-friendly, leading to cases of user error.

"If someone claimed to have been injured on our property and we could review footage and determine that person wasn't here on the day they claim, that saves us a lot of time and money," said Burke Strand, Network Manager, Iowa 80 Group. "But we didn't have the proper picture quality to identify people's faces, and therefore, our original system didn't help reduce liability at all."

To better control risk, the Iowa 80 Group needed to obtain high-resolution coverage of each of their truck stops. However, the massive size of the facilities – the main building in Walcott, Iowa, is more than 100,000 square feet – makes full surveillance coverage exceptionally difficult. Furthermore, each location features a football field-sized chrome showroom that displays full-sized semi-trucks. As much as it needed to enhance security, the Iowa 80 management team also wanted to maintain the aesthetic integrity of these facilities by featuring cameras that blend with the existing environment.

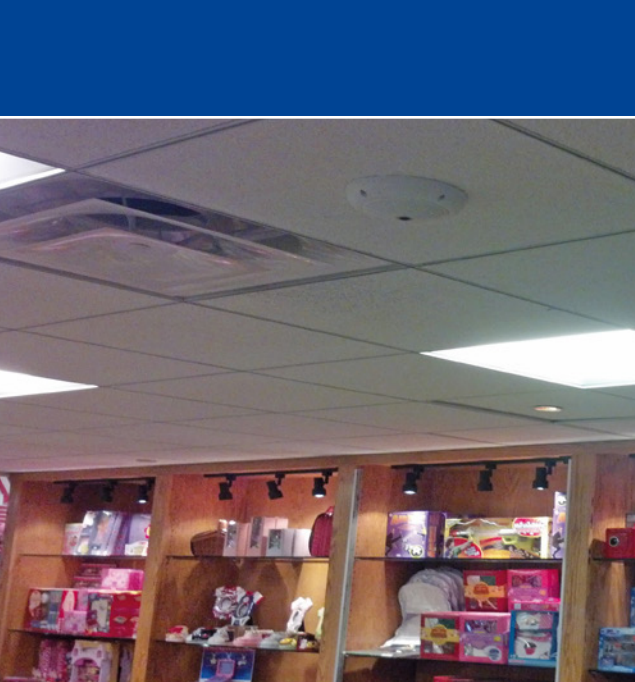
Challenge

The Iowa 80 Group truck stops see a ton of traffic each day as thousands of truckers pass through their facilities for the wide variety of services offered by their dozens of business units. Throughout its locations across the country, the company had installed analog surveillance cameras to help combat shoplifting, enhance employee efficiency and, most importantly for the Iowa 80 Group,



Security-Vision-Systems





Q24 Hemispheric Camera Ceiling Mount



Q24 Hemispheric Camera: Quad-View

Cost Savings, Long-Term Savings And The Picture Perfect Image Quality Is Impressive

"They originally had 2.5-foot cameras with smoked domes trying to cover areas the size of football fields," said Rob Benson, Project Manager, Dakota Security Systems, the security systems integrator that worked with Iowa 80 to develop a new high-resolution surveillance solution. "Iowa 80 Group is focused on maintaining a welcoming environment to its customers, and the previous cameras didn't fit the bill."

Solution

With the remodeling of their truck stop in Kenly, N.C., the Iowa 80 Group seized the opportunity to scrap their archaic, underperforming surveillance solution to test an IP-based system that could provide a blueprint for use in their other locations. Dakota Security Systems won the bid for the project, and developed and installed a comprehensive surveillance solution consisting of MOBOTIX cameras and Dell servers for video storage.

Dakota Security Systems installed MOBOTIX Q24 cameras within the massive showroom at the Kenly location. The Q24 is an elegant, compact and weatherproof IP camera that leverages MOBOTIX's advanced panoramic software to create a 360-degree field of view. A single camera is capable of capturing the image of an entire room. Since one MOBOTIX camera with 3.1 megapixels records up to 30 times more detail than traditional CCTV cameras, Dakota Security Systems leveraged the MOBOTIX cameras to cover the warehouse, but at a much lower camera count than

if traditional fixed cameras were used. The discreet Q24s also maintain the aesthetic appeal of each showroom because they easily blend into the environment. Dakota Security Systems also leveraged the subtle Q24s in Iowa 80's retail shops, where their "smoke detector-esque" appeal helps the cameras blend in while the high-resolution image quality has helped identify shoplifters.

"That is a lot of square footage to cover and the MOBOTIX cameras allow us to do the work of two or three cameras, which saves us a lot of money and provides us more coverage and better image clarity than we had before. We now have complete coverage, where before we had to pick and choose what was most important," Strand said. "The 360-degree views delivered by the Q24 allow us to really slice and dice our coverage so we don't miss anything. They have also helped us in the retail shops because they are so small but give us perfect images."

The Iowa 80 Group and Dakota Security Systems found additional camera-count reduction in the deployment of the MOBOTIX D14 DualDome for use on the exterior sides of buildings. The D14 is a high-resolution, dual-lens camera that produces a 180-degree field of view of up to 6.2 megapixels.

"Using just one D14 camera, we are able to cover the entire side of a building when that would probably take two, maybe three cameras to pull off with traditional solutions," Benson said. "We are covering entire sidewalks with just a



Q24 Hemispheric Camera: Dual-Panorama



Q24 Hemispheric Camera



Q24 Hemispheric HiRes 180°-Panorama



D14 Dual Dome HiRes Image



D14 Dual Dome Camera

few cameras and, on top of that, the edge devices are producing high-quality images that leave no room for questions on what occurred."

The IP camera installation is a remarkable success at the Kenly location, providing the Iowa 80 Group with the images they need to control shoplifting and liability issues, while enabling managers to ensure the efficient operations of their employees. Due to that success, and the cost-effectiveness delivered by the MOBOTIX solution, the Iowa 80 Group has installed the same system at two more of its locations and now operates about 350 cameras throughout its enterprise, which consist of approximately 100 MOBOTIX cameras and other traditional devices. However, without the MOBOTIX cameras, Benson believes that count would be a lot higher and, therefore, so too would the system cost.

"If we tried to do this same installation without the MOBOTIX cameras, we probably would need about twice the cameras that we were able to use," he said. "The cost savings from the initial investment in infrastructure, long-term savings and the picture perfect image quality is impressive. There's nothing that the superb German engineering of the MOBOTIX cameras cannot do."

Results

The high-resolution MOBOTIX cameras have lifted a heavy burden off of the shoulders of the Iowa 80 Group and, therefore, passed their most important test in a landslide. The high-resolution video offers Iowa 80 the ability to zoom-in without images becoming pixilated, distorted or grainy, providing officials with the evidence needed to combat liability claims and control risks.

"Once, with the old analog system, we had a guy who claimed he fell. We went back and checked the tape but the video was of such poor quality that you couldn't tell what happened," Strand said. "With the new IP system and the MOBOTIX cameras, no detail is missed."

Thanks to MOBOTIX, Iowa 80 has complete surveillance coverage of their showrooms, a circumstance they never thought possible, and the discreet Q24s provide an excellent avenue for preventing retail theft, controlling liability and streamlining employee management.

The Iowa 80 Group plans to move forward with the implementation of the same system at its fourth location, and looks forward to grabbing hold of the same benefits of megapixel surveillance at its other sites.

"I don't understand how we ever got by with the cameras we had before," Strand said. "The MOBOTIX cameras we have now are unbelievably strong and provide unmatched benefits."



MOBOTIX – Made in Germany: Innovative Technology, Reduced Total Costs

The German company MOBOTIX AG is known as the leading pioneer in network camera technology since its founding in 1999, and its decentralized concept has made high-resolution video systems cost-efficient.

Increased Resolution Reduces Amount Of Cameras Needed

1536-line, high-resolution sensors give a better overview and allow users to monitor an entire room with just one camera.

Reduced Installation Costs At Any Distance

Standard Ethernet connection enables the use of common network components such as fiber, copper and wireless (wi-fi).

Intelligent Cameras Reduce The Number Of Recording Devices

The decentralized MOBOTIX concept makes it possible to store data from approximately ten times more cameras to a single storage device than is normally possible.

Event-Controlled Image Format Minimizes Storage Costs

Automatic image adjustment (frame rate, size) based on movement, sound or signal input reduces the bandwidth and storage requirements.

Low Power Costs, No Extra Heating

Anti-fogging without heating allows usage of standard PoE technology to power the system via Ethernet or two-wire cable, saving power cabling costs.

Backup Power Supply Costs Reduced By Over 80 Percent

Low power consumption, approximately four watts, enables year-round PoE (no heating required) with one centralized UPS from installation room using the network cabling.

Robust And Practically Maintenance-Free

Fiberglass-reinforced composite housing with built-in cable protection and no mechanical moving parts (no auto iris) guarantees longevity.

Software For Thousands Of Cameras And Storage Devices Included

The right premium user interface software for every application: MxEasy for compact video solutions, MxControlCenter for professional control centers.

Unlimited Scalability And High Return On Investment

While in use, more cameras and storage can be added at any time; image format, frame rate & recording parameters are camera specific.

Additional Functions And Other Extras Included

Audio support, lens, wall mount and weatherproof housing (-30 to +60 °C; -22°F to +140°F) are included; microphone & speaker available in almost all models.

MOBOTIX AG
Kaiserstrasse
D-67722 Langmeil, Germany
Tel.: +49 6302 9816-103
Fax: +49 6302 9816-190
E-Mail: sales@mobotix.com
www.mobotix.com

