Calgary Catholic
School District,
Canada

MOBOTIX ... The HiRes Video Company

MOBOTIX

CASE STUDY

Calgary Catholic School District (CCSD), is home to more than 45,000 students

Calgary Catholic School District (CCSD)in Alberta, Canada, is home to more than 45,000 students in 104 schools in Calgary and surrounding area. The CCSD is second in size (by student count) to the city's primary school board, the Calgary Board of Education.

Challenge

The Calgary Catholic School District previously relied on an analog-based surveillance system as a way to increase security and aid in investigations, but the system began facing regular component failures. Furthermore, the analog cameras were limited in their capabilities and effectiveness, and captured images were blurry. Faced with the opportunity to upgrade its existing technology, the CCSD facilities team was interested in implementing a newer, IP-based surveillance system to enable the district to take full advantage of its network infrastructure.

"The security and safety of our students and staff is a priority for all of us, at our school district," said Al Berting, Manager of Operations, Calgary Catholic School District. "We knew we could accomplish much more with IP-based technology and the overall return-on-investment would be much greater than with traditional proprietary systems."

The primary goal of upgrading the district's surveillance system, was to provide an additional layer of security. The district knew it could enhance student and staff safety with a full-fledged IP security system that harnessed the power of high-resolution cameras. The facilities team also wanted to standardize security technologies across its facilities, making it necessary to find the best solution to deliver advanced capabilities and effectiveness for years to come.

"We've standardized as many systems as we can at our schools," Berting said. "This saves time and money as our maintenance team doesn't need to have numerous or disparate systems to manage. That's why we take the time to find a good solution, so we can stick with it."

A new security solution also had to provide an ease of installation and user friendliness to enable the school's in-house technical and IT team to support it. "Our goal, with any new system we purchase, is to make sure our team can get up to speed on it quickly. With 45,000 students on our schools, we don't have time for complex training," Berting said.

Security-Vision-Systems

MOBOTIX

Calgary Catholic School District employs a comprehensive MOBOTIX IP megapixel surveillance solution to enhance security across its campuses.

The MOBOTIX solution is now providing the school district with highly detailed video images

Charged with finding the best and most cost-effective video solution for the school district, Berting attended many security shows including the 2010 ISC West in Las Vegas to evaluate technologies. Over the course of the expo, the CCSD operations team visited with a number of surveillance manufacturers, including MOBOTIX, a leading developer of high-resolution, IP-based security solutions.

MOBOTIX is unique in its approach to surveillance technology. Its megapixel surveillance solutions are built on the decentralized concept to surveillance — a key differentiator of the MOBOTIX product suite. The truly intelligent MOBOTIX approach incorporates a high-speed computer and internal flash memory card (SD/MicroSD card) to enable all recording and storage to occur within the camera, reducing the need for a separate PC or DVR. Furthermore, all data is processed within the camera to lower network bandwidth, which allows users to maximize robust features, including virtual PTZ and 360-degree hemispheric technology with panoramic view. All MOBOTIX cameras include MxControlCenter, a professional video management software package that connects any number of cameras at any location with centralized or local, user-based operation and evaluation. MxControlCenter is provided free of charge to customers.

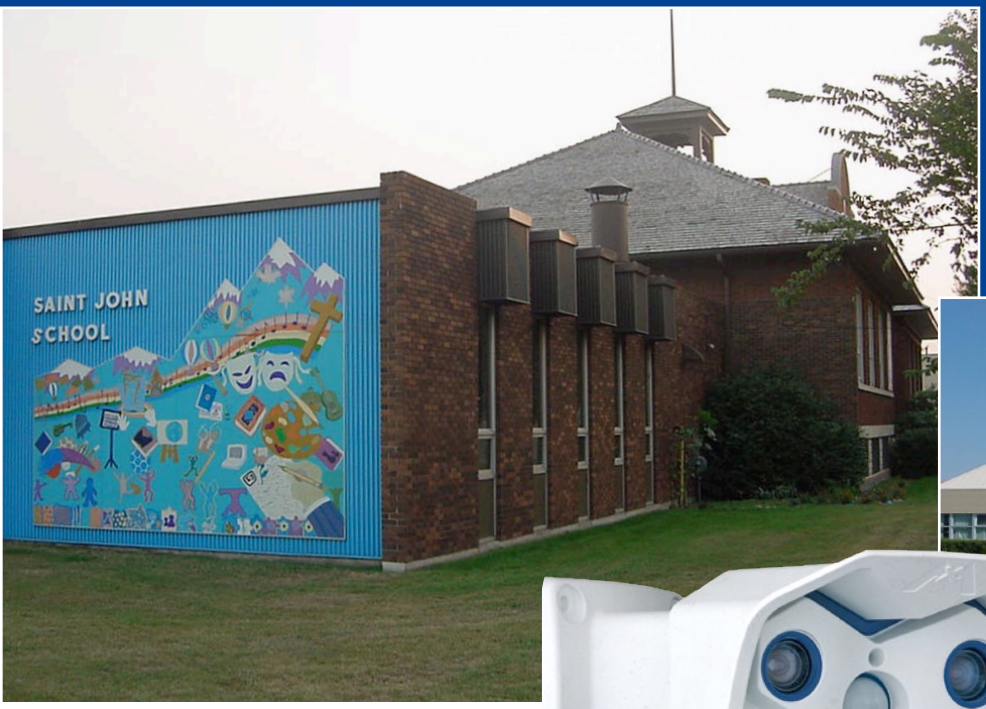
After the ISC West conference, the school district tested a selection of IP cameras at its education center, where previous analog cameras had failed. During the process, the team monitored for bandwidth consumption, functionality and image quality. MOBOTIX excelled during the tests and was chosen as the surveillance solution for the school district.

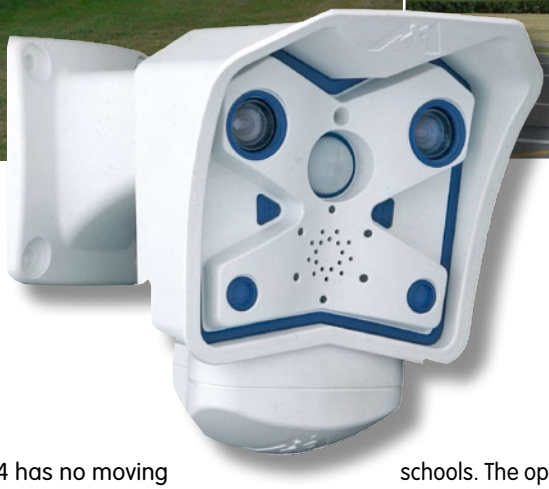
"MOBOTIX offered many capabilities that made it the ideal choice," Berting said. "What I found to be most important was the ability to manage system configuration internally and the value of leveraging the power of MxControlCenter to manage the cameras. Now, we no longer have to allocate additional funds to a software system, or the ongoing cost of software upgrades and licenses. I was also impressed with the decentralized approach as the technologies don't require much bandwidth to operate at capacity."

Solution

The Calgary Catholic School District deployment began with the district's high schools and although each has different surveillance needs, most have between 15-20 MOBOTIX cameras. The MOBOTIX Q24 Hemispheric cameras are used as internal cameras while the MOBOTIX D12 and M12 cameras are used in outdoor applications.

The Q24 is a hemispheric 360-degree camera used for complete room monitoring. It provides a simultaneous quad display of all four room corners and offers digital continuous pan, tilt, zoom functionality. Unlike PTZ cameras,





the robust and maintenance-free Q24 has no moving parts. The M12 is a dual camera that provides brilliant image and color quality in the day and high sensitivity at night, thanks to two separate image sensors for color and B/W, while the D12 includes two individually positioned sensors and two separately directional lenses to simultaneously monitor different areas.

By implementing the decentralized network camera solution, CCSD is now able to record, analyze and store megapixel video at a fraction of the bandwidth required from competing high-resolution IP video products. This is accomplished through the use of the MxPEG video codec, which significantly reduces the load on the district's network infrastructure. Furthermore, the school was able to reduce the number of cameras needed to cover its campuses as one MOBOTIX Q24 replaces up to four traditional analog cameras.

The MOBOTIX solution is now providing the school district with highly detailed video images and therefore, is able to clearly identify the faces of individuals with the crisp resolution provided by the megapixel sensors.

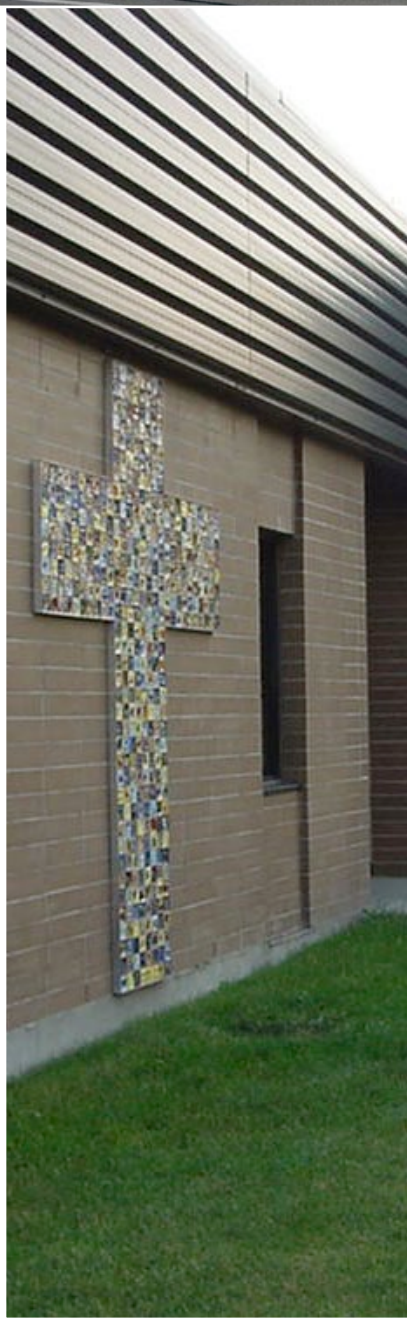
Results

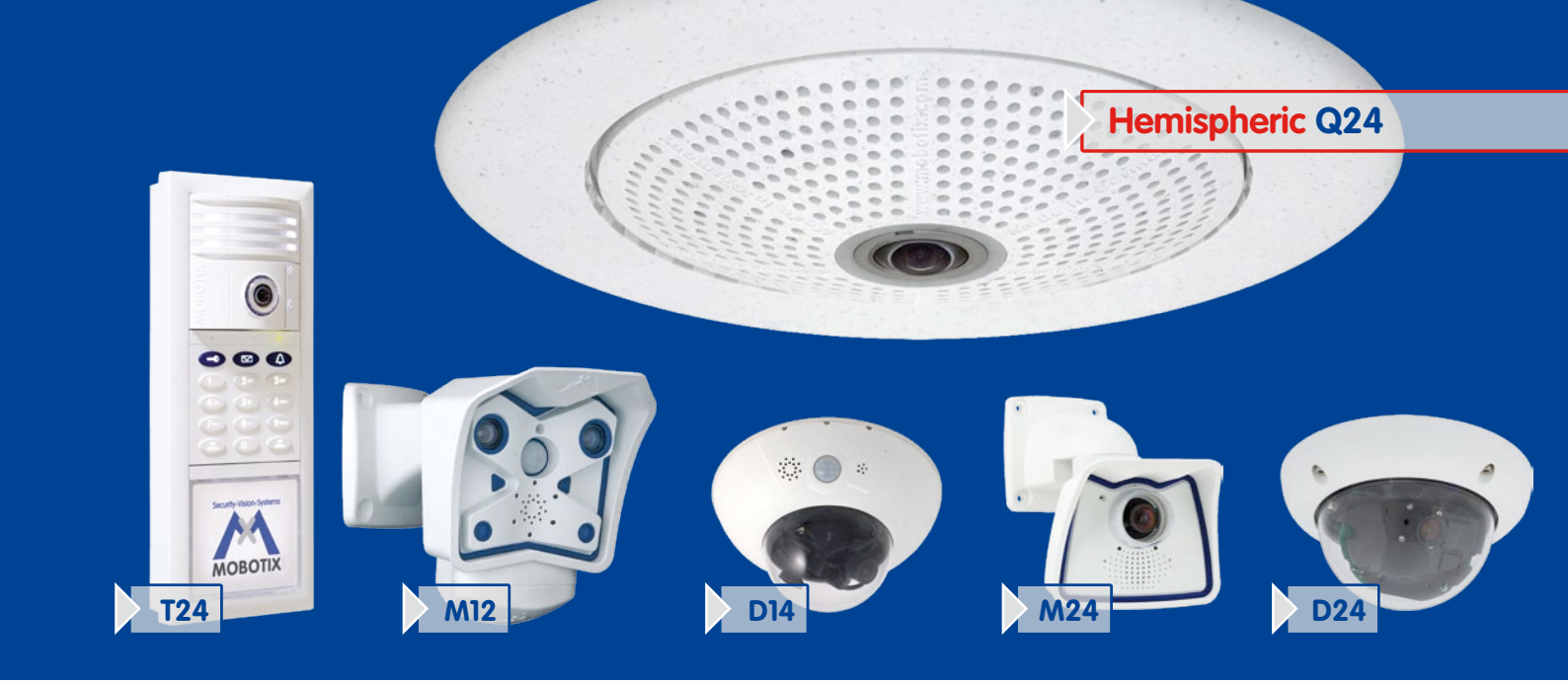
Prior to the MOBOTIX installation, the district experienced vandalism at some of its elementary and junior high schools. To monitor and address the issue, CCSD installed three, dual-head MOBOTIX M12 cameras on the exterior of the schools. The operations team noticed an immediate reduction in the amount of damage in these locations after the cameras were installed.

"In nine months, we saved enough money in the reduction of graffiti and vandalism to cover the cost of the MOBOTIX technology," Berting said. "We have seen numerous situations in which the system has proved to be more efficient, user-friendly and cost effective than originally expected."

To date, the school district has installed more than 200 cameras across multiple campuses and plans to expand the use of MOBOTIX solution across its 115 facilities.

"We will continue to upgrade our security technology because we must make sure that we do everything we can to ensure our students and staff are being safeguarded," Berting said. "We use the necessary tools to accomplish this and we have chosen the best technology partners to accomplish this goal. MOBOTIX is a valued part of this equation"





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.

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