Photos:
DB AG

MOBOTIX

C A S E   S T U D Y

Network video: Full Steam Ahead For Security

Clear Signals

German railway company Deutsche Bahn (DB) gives high priority to keeping travelers informed. This explains why 220 million euro were invested in a single "Traveler Information System" project. The system is a technical

and organizational platform that supplies consistent, reliable and up-to-date information about the current operating status to customers and employees alike. Thanks to this system, on-board personnel can, for example, use text messaging technology to communicate with operations control and to quickly inform passengers about any irregularities. Since station announcers and service staff are likewise linked to the system, passengers waiting at stations can receive the same information.

Modern Methods In Magdeburg

A 650,000-euro high-tech announcement center has been operating in Magdeburg since the end of May 2004. In addition to the city's own central station, the

center also serves 20 other stations between Schönebeck/Elbe to the south and Genthin to the north east. Advanced but proven technology enables the 15 Magdeburg DB Station&Service employees to quickly assess the situation at three announcement points and to pass on the accurate information to travelers and visitors – and that means 40,000 people a day at Magdeburg central station alone.

Security Solution

The announcement service is assisted by MOBOTIX technology. The cameras from the Kaiserslautern-based manufacturer are not only used to track the movements of DB's trains, but increasingly, they are also expected to perform security functions. As such, they play an important part in Deutsche Bahn's "SST program" (Service, Security and Tidiness), which also includes Magdeburg central station.

Security Vision Systems

MOBOTIX AG

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One of the three announcement points at Magdeburg central station.

Cameras For Deutsche Bahn's New Program

High Expectations

"The central station in Magdeburg serves the regional capital, so the expectations on technology here are high," says Sabine Rothenberger, who is greatly concerned about quality. As director of Magdeburg station, she is not only responsible for 130 employees, but she must also ensure that the SST program is implemented at 200 active stations and at 313 stops with less traffic activity.

Accurate and reliable passenger information is one aspect of the first S ("Service"). When the new announcement center was built, a camera technology was needed that would meet the station director's high expectations. Since the employees at the announcement points have no direct eye contact to the in- and outgoing trains, they needed reliable images of the tracks at the central station, and at the nearby Magdeburg-Neustadt and Schönebeck/Elbe stations.

"Try MOBOTIX!"

The new center was planned and managed by DB Services Technische Dienste GmbH, a subsidiary of the German railway company. As the team leader of communication systems team in Magdeburg, Ronald

Seidel was instrumental in finding the ideal camera technology. "It was extremely helpful," Seidel says, "to be working for a company with nationwide activities. All 32 team leaders around the country regularly pool their information about new technologies that are really well suited for our needs." Seidel says his colleagues gave him the lead he was looking for: "'Try MOBOTIX cameras, they told me. The technology is excellent and they provide good service. And the people are competent and always willing to help."

Systematic Testing

Ronald Seidel asked for the IP addresses of the MOBOTIX cameras at Saarbrücken station where a similar application has been in operation since 2003. He wanted to see for himself that this solution was really working. "I was also impressed that the technology had already been approved by Corporate Purchasing," he recalls. "Finally, I ordered one camera so I could test it thoroughly." The team leader gets excited when he talks about his findings: "The MOBOTIX camera is extremely versatile, delivers superb quality and offers excellent resolution."

Surveillance cameras in front-office areas provide images such as above which greatly contribute to station security.

Images Around The Clock

Today, 17 MOBOTIX cameras are installed at Magdeburg central station, three at Magdeburg-Neustadt and another two at Schönebeck/Elbe. All cameras record images of the tracks and platforms around the clock and employees can view them simultaneously or individually per mouse click. Additional stations are to be equipped with the same technology in 2005.

The cameras constitute an autonomous network within a free IP segment group. External sites are connected via DSL to ensure stable delivery and faster upload rates. The images are displayed on monitors at the announcement center, where staff can see all camera angles simultaneously or – at the click of a mouse – zoom in on selected tracks.

The Second "S"

"We don't just use the cameras to monitor how long the trains are stationary, though," Sabine Rothenberger stresses referring to the SST program. "Station security is another important issues for us. Railway stations in large cities are busy places. Using cameras is one valuable way to guarantee the security of our customers, for whom we are responsible." Accordingly, the station

director is already thinking of deploying the MOBOTIX technology to other key points this year.

Security Partnerships

Rothenberger can well imagine collaborating with the local government, the police and the Federal Border Control to install MOBOTIX cameras in the front-office area, in front of the station, at the central bus stop and at other critical points in the vicinity. "Security strategies always need security partnerships to work properly," she explains. "The primary purpose of camera surveillance is preventative, i.e. to stop potential threats before they occur. At the same time, the MOBOTIX cameras have such versatile and convenient recording functions that they are also perfectly suited even to investigating and prosecuting crime."

And the cost issue? "We are always looking for solutions that give us excellent return on investment. That goes without saying," Rothenberger adds. "This was one of the main reasons why we chose MOBOTIX. Besides, we don't want to be cheap when it comes to security!"

D12 Dual-Fixdome Outdoor

D12 Dual-Fixdome

Two image sensors for 180° panorama images

Covers RJ45 wall outlets

M12 Day/Night

Microphone

Motion detector

Speaker

M22 Mono/CF

MOBOTIX Technology –
Cost Savings in Every Aspect

High Resolution For Sharp Images

All MOBOTIX cameras are high-resolution cameras with integrated image storage and 960 lines (1280x960 pixels) resolution. The **stored image** thus contains 12 time more detail for creating zoomed sections of the image than regular cameras with 240 or 288 lines (CIF, 2CIF). This is why one single MOBOTIX camera with a 90° wide-angle lens is sufficient to monitor an entire room and yet provides more detailed images than traditional technology. The MOBOTIX Day/Night cameras feature zero maintenance with one color and one B/W image sensor.

Intelligent Storage Technology Uses Fewer DVRs

The new, decentralized storage technology pioneered by MOBOTIX reduces the number of recorders that store the smooth high-resolution video by up to 90%. 40 cameras store smooth video streams including audio on a single PC, each managing its own ring buffer and database. Intelligent search features provide swift access to the stored events. There is no software required for storing and managing video, eliminating license fees and the need for expensive software. Event-controlled recording and automatic increase of frame rates upon detecting movements drastically reduce the storage requirements.

Low Power Consumption Means Enormous Savings

Since MOBOTIX cameras are anti-fogging, do not require heating and only use 3 Watts each, power can be injected into the network cabling using standard PoE products, year round. This drastically reduces the amount of cables and the power requirements for backup power.

Integrated Telephone Features

All MOBOTIX IT and Secure models feature bidirectional audio support. The built-in microphone and loudspeaker are used for live audio transmissions and storage purposes. Voice messages with PIN confirmation and call forwarding via IP or ISDN telephony have been integrated as well. Using the switch outputs, you can switch lights or open doors from the phone or from the computer.
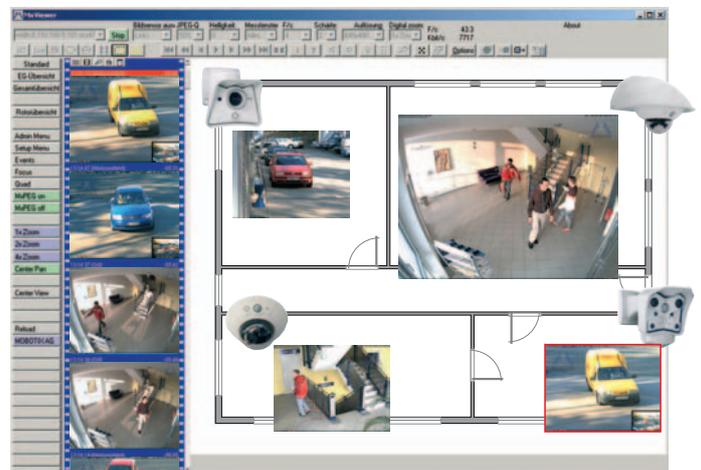
Robust and Well-Protected

The fiberglass-reinforced housing is shockproof and the SecureFlex mount protects the network cabling as it completely conceals the cables (M12/D12 models). Weatherproof (IP65) from –30° to +60°C (-22° to +140°F).

High Return on Investment

Since the number of cameras and storage capacity are freely scalable and any kind of data connection can be used (ISDN, DSL, Ethernet, Wireless, GSM, copper, optical), MOBOTIX means high ROI, even years after installing.

State-Of-The-Art Technology

Developed and manufactured in Kaiserslautern, Germany, MOBOTIX produces image-storing weatherproof high-resolution cameras, including lens and wall/ceiling mount for as little as 598 EUR excl. VAT. To date, more than 100,000 cameras have been sold worldwide.

Download **MxViewer** alarm management software free of charge. 30 cameras with 30 fps each, layout editor, remote alert notification

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