

MOBOTIX

CASE STUDY



MOBOTIX Cameras Provide Security In Shoppers' Paradise

The Pacific Place Jakarta shopping mall has dominated the middle of the Sudirman Central Business District in Jakarta, Indonesia, since 2007. The Dua Mutiara Group was initially operating more than 300 analog CCTV cameras from different manufacturers for security within the shopping mall. However, maintaining and servicing these devices was costly and a drain on resources. Since problems also arose with the electric cabling, the company in charge of the mall decided to replace the existing setup with a modern security system consisting of 197 MOBOTIX cameras.



The international shopping mall is divided into three sections: the Pacific Place mall, the One Pacific Place office center and the three towers of the Ritz Carlton Pacific Place hotel. Spread

over six floors, visitors can enjoy the Blitzmegaplex – a huge cinema – as well as a number of international restaurants and luxury outlets such as electronics stores, jewelers and boutiques. Children have access to top entertainment in Kizania in the form of an enormous adventure playground.

Security cameras in a shopping complex such as this are no longer simply an optional extra; they are an absolute must. A current study from the EHI shows that there were more than EUR 3.8 billion in inventory differences in 2012 in Germany alone. Around half of these losses (EUR 1.9 billion) are the result of theft by dishonest customers. No wonder then that an increasing number of retailers are investing in measures for prevention and security by purchasing new video systems. These offer retailers analytical tools that provide significant added value beyond what traditional systems are able to provide.

Image Quality Increased, Maintenance Requirements Clearly Reduced

Following extensive market analysis, the Dua Mutiara Group decided to install MOBOTIX cameras in the Pacific Place Jakarta in the future, since the systems are not only easy to use, but also deliver detailed, high-resolution images. What's more, these cameras do not contain any moving parts, meaning much lower maintenance costs. The cameras were replaced in six separate phases. Firstly, five MOBOTIX DualDome cameras were installed





AllroundMono D24M

New Solutions Provide A Wide Range Of Analysis Options For Retailers

in the lobby. It is possible to monitor two different areas at the same time using just one camera thanks to the two lenses and HiRes image sensors – all without vulnerable mechanical components. It offers customized object selection between telescopic and wide angles as well as day/night settings and a 180° panorama function. Just like all other MOBOTIX cameras, the DualDome is robust, low-maintenance and weather-proof, and it is even suitable for use in temperatures from minus 30 to plus 60 degrees Celsius. Since the camera comes with the option of continuous digital zooming, panning and tilting, as well as a speaker and PIR motion detector, the lobby is always well monitored and it is even possible to record the license plates of passing vehicles.

In the second phase of the project, 90 cameras were installed in the Pacific Place mall for security. The D12D-Secure, D24M-Secure and M12D-Secure models were placed in the parking lots as well as the areas in front of them. Cameras were also fitted in the lobby, the shopping area, as well as in the food court and the reception hall of the Ritz Carlton hotel. The D24 can be equipped with exchangeable lenses. It is suitable for both indoor and outdoor areas and features a built-in DVR with HiRes video recording. The D12 also leaves nothing to be desired in this respect. It has two separate HiRes image

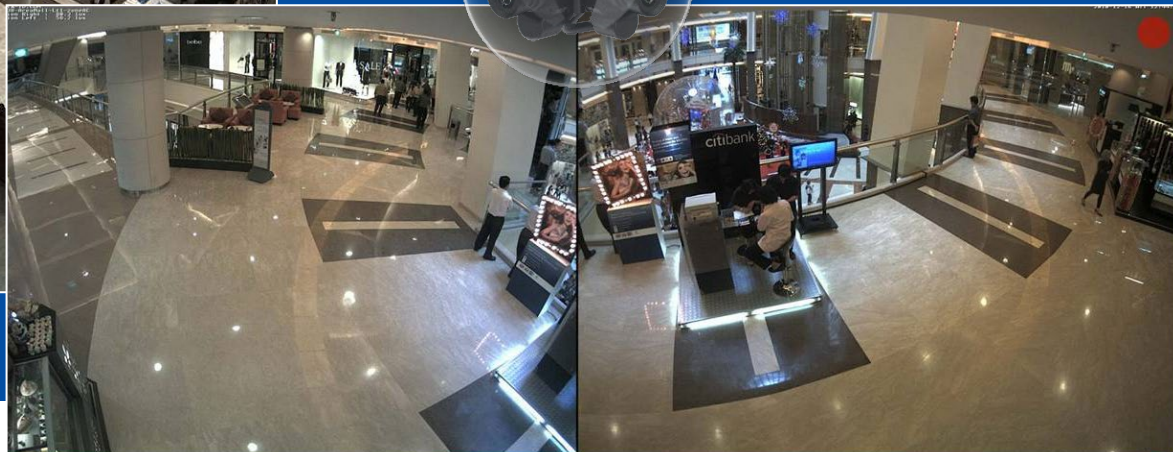
sensors, meaning it is able to offer brilliant color during the day and high-speed black and white recordings at night. "Our security staff had significantly less work to do even after the first 95 cameras had been installed," says Ranjan Kumar Nandy, who works in the Engineering Department at the Dua Mutiara Group and supervised the installation work. "That's because the security systems are incredibly easy to operate, provide excellent quality and do not overload the network. This saves a great deal of time and money."

Added-Value Through In-Camera Video Analysis

New cameras were installed in the most important areas, which require special monitoring, in phase 3. The group placed thirteen D24 and ten M12 cameras in these areas in order to prevent vandalism and theft. Four M12D-Sec and five Q24M-Sec cameras were then installed in individual areas in phase 4 of the project. The hemispheric Q24 cameras are particularly well suited for capturing an entire room with no blind spots. They also feature an in-camera video analysis function. The shopping mall has a very efficient tool at its disposal in the shape of MxAnalytics, which stores important information for the optimization of processes and for marketing purposes. This makes it possible to determine which shelves attract the most customers. The movement of people and objects



DualDome D12D



DualNight M12D

is also reliably captured and evaluated in the live image. This makes it possible to use a heat map to display a pre-defined area, on which the most frequented zones will be highlighted in color. It is also possible to generate observation data thanks to counting lines. This makes it possible to analyze how many people pass through the lobby of the Pacific Place Jakarta over the course of an hour or a whole day.

In phase 5, the entire outdoor area, which is quite large in size, was equipped with Raytech LED lights in order to ensure good visibility even at night. In the final phase, the entire system was expanded to include 70 additional Q24M-Sec, M24M-Sec, D14D-Sec and D24M-Sec cameras.

The Camera Is A High Performance Computer

The MOBOTIX decentralized concept means that every camera is a high performance computer and, if required, can also be used as an archive for several days of recordings thanks to the built-in long-term digital flash memory. The PC or the video control center is required only to view the cameras, not to evaluate and record video footage. This means that it is not necessary to install expensive video management software, since the essential functions that require a large amount of processing power are already integrated into the cameras. The shopping mall also requires fewer cameras because the wide-angle images provide greater detail through the use of megapixel technology. The lower network bandwidth provides another advantage. Since

all of the information is processed in the camera itself, it is no longer necessary to continuously transfer high-resolution images for evaluation. This means that in a decentralized system, it is possible to simultaneously store high-resolution HDTV video with sound on a PC or server with ten times as many cameras than is generally possible. Pacific Place Jakarta is highly satisfied with the new solution. "The cameras use very little electricity – under five watts – and this protects the environment in terms of green IT and also saves us money," explains Ranjan Kumar Nandy. "We will certainly install more MOBOTIX cameras in the future in order to increase the security of the guests in our shopping mall even further."



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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