



MOBOTIX Innovations

MOBOTIX at the Security Trade Show as Provider of Intelligent Complete IP Video Solutions



Heading into the Future with Innovation and Customer Centricity

A Conversation with the MOBOTIX Management Board

Innovative Security Concept

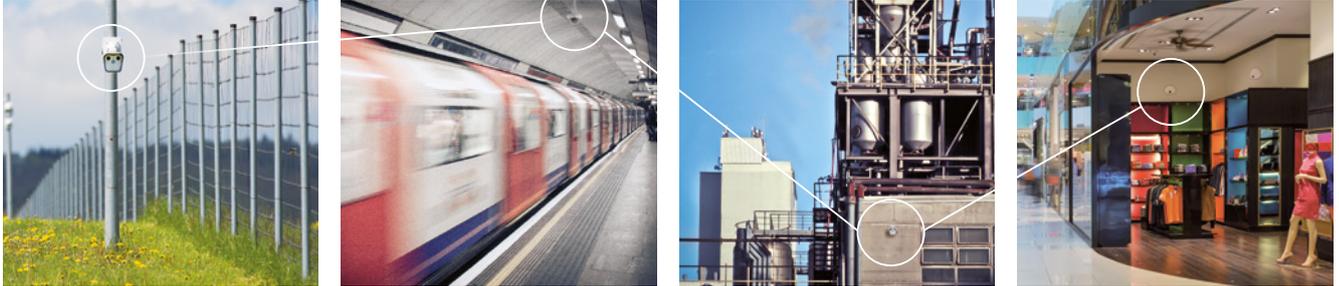
3D LiDAR, Thermal and Video Technology with Reliable Alarm Management



Intelligent Solutions and Product Innovations



A Word from the Management Board



Heading into the Future with Innovation and Customer Centricity

Members of the Management Board Dr. Oliver Gabel (CTO), Dr. Tristan Haage (CSO) and Klaus Kiener (CFO) share an exclusive insight on the latest developments and the future vision of MOBOTIX AG in an interview.

Dr. Tristan Haage, Chief Sales Officer

Since its founding in 1999, MOBOTIX is known as a pioneer in the development of IP video technology with the introductions, for example, of the first megapixel camera and the world's first hemispheric IP camera. We want to build on this success story. Our entire organization is focused on innovation and providing customer centricity while we strengthen our position as a provider of intelligent complete IP video solutions.

The terms "smart" and "intelligent" are hot topics in the industry and everyone is using them. Yet, no other IP video camera has so much intelligence as MOBOTIX does: It requires no central server, no network recorder or storage unit, because it processes, analyzes and stores image data in the camera directly. A MOBOTIX camera

"Our entire organization is focused on innovation and providing customer centricity while we strengthen our position as a provider of complete intelligent IP video solutions."

is capable of sending event-driven alarms and based on the input from the various sensors, can for example, switch on and off lights, lock doors or interfere with the control system. In this manner, we can implement genuinely intelligent solutions at a competitive, affordable price.

Dr. Oliver Gabel, Chief Technology Officer

Our innovative security concept for perimeter protection is one example of how we can bring together different sensors to create an efficient complete solution. We added a 3D laser scanner (LiDAR) from Konica Minolta to complement our thermal and video technology to capture objects with three different sensor technologies. With this combination, an automatic data analysis can evaluate the events better. For example, it is possible to also use 3D LiDAR to

measure distance very precisely. This way, the events that trigger an alarm can be perfectly distinguished. This integrated solution brings us closer to seamless security with no false alarms.

Dr. Tristan Haage, Chief Sales Officer

At Security in Essen, Germany, we are showing for the first time customized solutions for use in transportation, perimeter protection, industry and retail. The retail solution, for example, combines security with business intelligence. The camera-integrated video analytics gives retailers valuable additional information for sales optimization. We can now integrate the cash register system and link transaction data such as products and price to the image data. In a future release of our video management software, MxManagementCenter (MxMC), it will be possible to show the videos from a transaction at the cash register and with the help of a search function, clarify any irregularities. This is added value for a video security system.



Dr. Oliver Gabel, Chief Technology Officer

One of our goals is to offer a complete system for industry solutions that includes the camera, a NAS system that is best suited for the specific application and the special analysis algorithms such as license plate recognition. All significant system components are perfectly matched, and if required, can be managed together with a selected technology partner. We will differentiate ourselves even more with our software solutions. With our video management software, MxManagementCenter, we are already well positioned. We have enhanced our user interface based on the feedback we received from the market. In addition to video analysis, opening up and expanding the MOBOTIX system is a major focus for our ongoing R&D. Soon both MxMC and our cameras will support ONVIF and H.264.

“This integrated solution brings us closer to seamless security with no false alarms.”

partnership with Genetec are the first two jointly won large-scale projects where in each project more than 500 MOBOTIX cameras have been integrated.

Dr. Oliver Gabel, Chief Technology Officer

The major technological advantages continue to attract our customers to our 100-percent MOBOTIX solutions. For example, one of the leading

European banks recently opted for the complete system from MOBOTIX and now implements our MxManagementCenter with nearly 2,000 “Made in Germany” indoor cameras.

Klaus Kiener, Chief Financial Officer

We are well positioned for the future with our new strategic direction, the continued development of our software and a new camera platform, expected to be launched in 2017. Konica Minolta supports

this strategy and will also provide access to markets and customers, in particular multinational corporations, which have not previously been in our focus, therefore becoming a tremendous growth driver for us. Funding for this technological offensive and the associated growth strategy can only be achieved with a strong partner like Konica Minolta. In addition, synergies within the Konica Minolta Group, such as the purchase of core components, will further improve our competitiveness. As a result, customers, partners, our employees and shareholders will benefit.

Dr. Oliver Gabel

Dr. Tristan Haage

Klaus Kiener

Dr. Tristan Haage, Chief Sales Officer

Our position on the market is not only to be a system provider with more powerful products, but also to improve the integration of MOBOTIX camera systems. We will be leveraging our own new potential strengths, as well as those of our partners, after having successfully integrated MxPEG in Security Center, the video management platform from Genetec. And a promising start to our new technology



(left to right): Dr. Oliver Gabel (CTO), Dr. Tristan Haage (CSO), Klaus Kiener (CFO)

Innovative Security Solution with Reliable Alarm Management

MOBOTIX Combines Video and Thermal Technology with a 3D Laser Scanner

Responding to the growing demand for perimeter protection systems with no blind spots and the fewest number of false alarms possible, MOBOTIX



announces in cooperation with Konica Minolta a pioneering new development: Video and thermal technology from MOBOTIX will soon feature a 3D laser scanner (LiDAR) from Konica Minolta to offer an efficient complete solution. 3D LiDAR scans larger areas with a laser beam. The reflected laser beam is used to determine the distance to an object, its size and the speed at which it is moving. In contrast to other systems on the market, the laser technology supplied by Konica Minolta seamlessly scans the entire vertical scene. Objects are reliably detected and displayed in three dimensions.

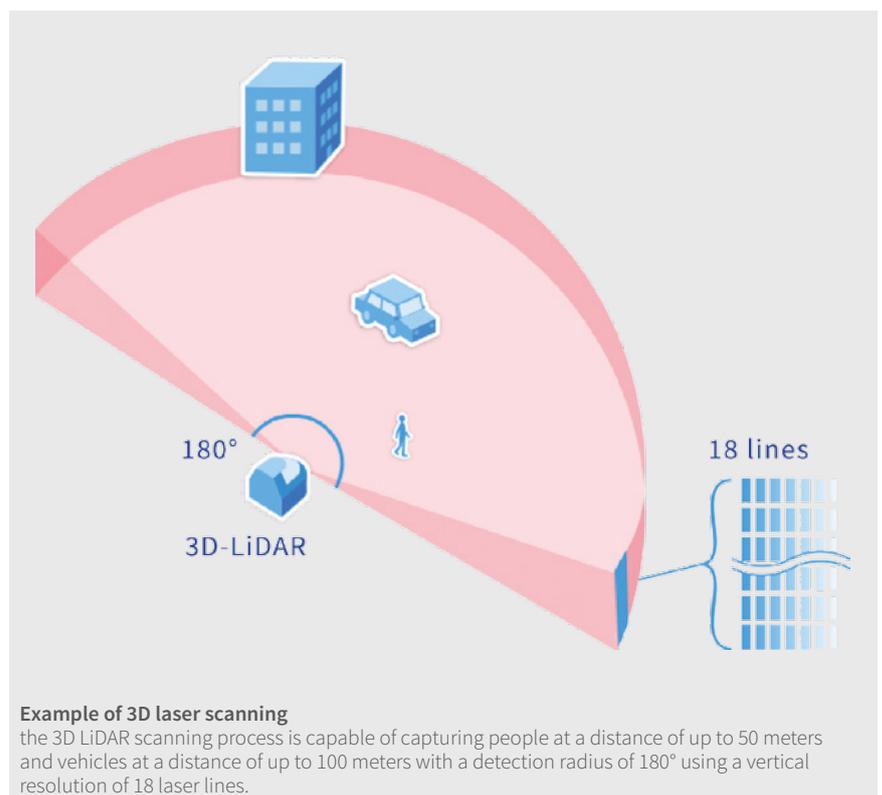
The added value of this solution lies in the combination of the different sensors, which helps the automatic data analysis to evaluate the events even better. This way it is possible for example, to optimize the defined object size and temperature for events that trigger an alarm not only by movement in image but also by a

defined distance. The defined distance, object size and temperature can be set. This brings us closer to seamless security without triggering false alarms.

The development of a new integrated security solution is only one of the specific projects pursued by Konica Minolta and MOBOTIX. MxManagementCenter acts as the software platform. The data gathered by the 3D laser scanner, for example the precise distance of an object or the thermal image superimposed on the optical image, can be displayed.



Combining different sensors
the 3D LiDAR from Konica Minolta with a MOBOTIX M15D thermal camera



Example of 3D laser scanning
the 3D LiDAR scanning process is capable of capturing people at a distance of up to 50 meters and vehicles at a distance of up to 100 meters with a detection radius of 180° using a vertical resolution of 18 laser lines.



MOBOTIX Management Center 1.3

New Version Offers Expanded Features

Device Toolbar with Tree Structure Layout

The new version 1.3 of the software platform MxMC offers as an alternative to the horizontal camera and group bar a device toolbar on the left side with tree structure in any view. It enables users to have an overview of the basic structure and simplifies navigation between cameras and views. It is also possible to adjust the size of the device toolbar. The new device toolbar in MxMC 1.3 offers users the option of selecting cameras and camera groups and marking them as favorites.

In addition to the significantly improved user friendliness, the new version stands out as it provides improved performance on both Windows and Mac OS X devices.



New device toolbar with tree structure layout as of MxMC 1.3

The **histogram** has offered users a quick overview of irregularities at a specific time and location since version 1.2. The histogram graphically shows the frequency distribution of recorded events from selected cameras during a defined time period.

High-Speed Playback (60x)

MxMC offers a variety of playback and search tools for quick display of alarms and for comfortable search and analysis functions. The high-speed playback feature enables users to speed up playback forward and backward up to 60 times faster. The convenient time lapse search means users can search through 24 hours of recorded video files in less than two minutes.

Flexible Export of Video Files

MxMC currently supports exporting videos as MxPEG and AVI files. Users can select between full image and even an image section (zoomed area). The resolution and

frame rate can be reduced to facilitate exports of video files for sending via e-mail. The flexible features of the MxMC also include the ability to export a video recorded by a hemispheric camera not only as a 360° full image but also as a surround or panorama view.

Post Video Motion Analysis

The motion analysis integrated in MxMC enables users to also efficiently search for changes or motion in the image of the stored videos afterward. Several search ranges can be defined with windows and users can use a time lapse feature to quickly examine large amounts of video footage.

Download

MxMC 1.3 will be available for download free of charge under www.mobotix.com > **Support** > **Software Downloads** after the Security trade fair.



Event histogram in MxMC

MxProximityBox and MxMultiSense

Intelligent Sensors for Motion Detection

MOBOTIX has added two new modules to its sensor products. The **MxProximityBox** uses Doppler radar technology for motion detection. As radar is capable of penetrating various materials, the device can be concealed behind drywall, wood or plastic walls.

Shaped like an S15 sensor module, the **MxMultiSense** detects motion using PIR technology, which means it also detects the sounds, temperature and brightness of the surroundings. Both modules communicate via MxBus and are weather-proof. With the new, additional sensors security solutions can be upgraded without incurring major costs.



MxSoftpanel – MxDisplay+ Interface for Your PC



MxSoftPanel is a new, free of charge user software from MOBOTIX that offers the functionality and user interface of the MxDisplay+ as a stand-alone application, meaning it can transform any Windows- or Mac OS X-based computer into an additional remote station of the T25 IP Video Door Station.

With a fixed resolution of 800 x 480 pixels, MxSoftPanel features all functionalities of the MxDisplay+ with the exception of

training RFID transponders. The use of a PC makes it easy to manage larger installations (changing entry permissions, changing entry times and adding/removing new PINs, for example). Thanks to its ability to integrate remotely to door stations in far distances (for example vacation homes), the MxSoft Panel can be used to create new entry PINs or delete old ones from anywhere in the world.

Camera Integration with the New EventStream Client SDK

MOBOTIX is offering partners the new Software Development Kit (SDK) as an opportunity to integrate cameras into their own software solution. It supports communications with the EventStream interface of the camera. In addition to the video and audio data, this channel is used

to transmit all control and status messages of the camera. The SDK provides the C++ objects that are necessary for the integration, such as the MxPEG decoder.



Version 1.0 of the EventStream Client SDK for Windows, Linux and Mac OS X, including documentation, is available free of charge directly from MOBOTIX at: www.mobotix.com > **Support** > **Developer Tools**

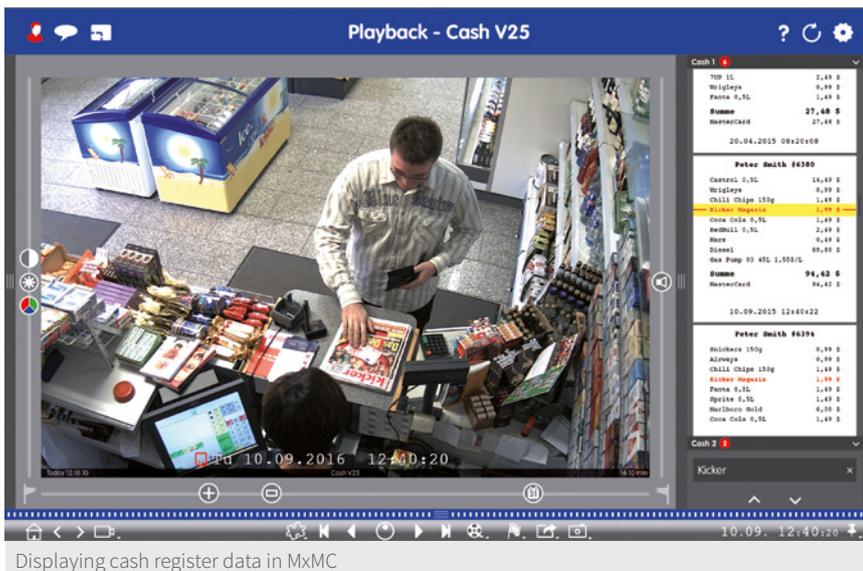


More Added Value with Integrated Cash Registers

With the camera-integrated video analysis, MOBOTIX already offer the retailer valuable additional information such as

the visitor count or the display of the movement patterns with heat maps.

In the future, it will be possible to integrate cash register systems into a MOBOTIX solution. Transaction data such as products and price can be transferred to the camera over the network and stored on the integrated SD card. MxMC links the image and transaction data and includes a search function to help clarify any irregularities. Searches can be sorted by means of filters such as “total amount” or “cash payment,” or according to specific products.



The integration has already taken place with Vectron, one of the leading manufacturers of cash register systems in Germany. there are plans for integrating further manufacturers.

Genetec Integration

MOBOTIX and Genetec have started a technology partnership with the goal of supporting new and existing enterprise customers with an integrated software/hardware solution. The most important and significant advantages of the decen-

tralized intelligent camera system from MOBOTIX remain since MxPEG smoothly integrates into Security Center, a software platform from Genetec that combines VMS, license plate recognition and access control functions.



Using Analog Cameras with MxDigitizer

MxDigitizer makes it possible to integrate analog cameras in a MOBOTIX system. Special feature: MxDigitizer does more than just convert the analog signal into a digital one; the analog camera becomes the video sensor of a MOBOTIX S15 camera. In this manner, the decentralized features, such as MxActivitySensor,

storage on the camera and the event logic from MOBOTIX, are also available. MxDigitizer supports the convenient migration of an analog system to a new, modern IP-based video system at an affordable price.



Ready Right Out of the Box

Effective immediately, MOBOTIX offers two plug-and-play solutions: the camera NAS system and the complete IP video system for the house door are shipped preconfigured. The MOBOTIX system is quickly and easily put into operation. The preconfiguration supports standard applications of a video security system

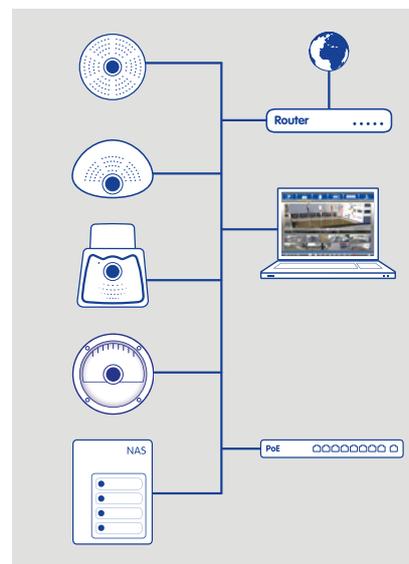
and the IP Video Door Station. MOBOTIX relies on high-quality network storage systems from Overland, a technology partner for the camera NAS system.



Pre-configured Camera NAS System

The camera NAS plug-and-play package consists of up to 16 different MOBOTIX single lens cameras, one network storage device and MxManagementCenter, the MOBOTIX video management software. All components are perfectly matched to enable users to easily commission the system with minimum configuration, taking just two minutes.

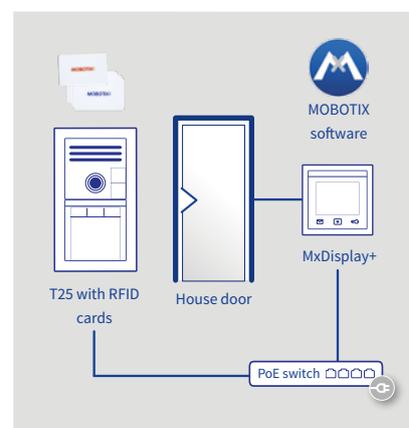
The plug-and-play solution is well suited for the typical requirements of a video security solution in offices or on sales floors. Once the cameras have been integrated into the network and the MxManagementCenter, live images and recordings controlled by MxActivitySensor are displayed virtually automatically on the NAS device.



Complete IP Video System for the House Entrance

The new complete IP video system is an ideal way to start implementing a smart home while improving comfort and safety for any residence. The set consisting of T25 IP Video Door Station and MxDisplay+ video remote station, is immediately ready to use when powered up thanks to

the perfect pre-configuration. The T25 incorporates all innovative MOBOTIX features, such as a true 180° panorama view, which enables perfect coverage with no blind spots of every entrance. The MOBOTIX bell module and the included RFID cards support keyless entry.



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