



Ultrajaya,
Indonesia



Indonesian Producer of Beverage Products Puts Its Faith In German IP Video Technology

Java is a popular tourist destination. Some of the main attractions on Indonesia's most populous island include the capital city Jakarta, Borobudur and Prambanan (UNESCO World Heritage Sites) and the Mount Bromo volcano. Vacationers visiting the supermarket to stock up on drinks on the way to these hotspots will find the shelves lined with Ultra Milk or ready-to-drink teas called Teh Kotak. These brands are widely available in Indonesia and belong to Ultrajaya, the country's leading producer of milk products, ready-to-drink teas and fruit juices. The company was founded in the city of Bandung, West Java, in 1958. Today, the production facility is situated in the middle of the fertile agricultural land near the city. This is where the high-quality ingredients used in production are sourced, including milk, tea and tropical fruits. 90 percent of the group's production volume is sold in Indonesia, with the rest being exported.

Up until 2007, the production processes and outdoor areas of Ultrajaya's production facility were predominantly monitored using analog

camera systems. "However, these cameras were no longer reliable and were delivering poor quality images," recalls Marvin Bayoumi, Quality Control Manager at Ultrajaya. "What's more, after a while they fell victim to the high temperatures and humidity that are by-products of the ultra-heat treatment and liquid mixing processes." Over the years, Ultrajaya had also installed IP cameras, which use Internet protocols (IP) to transfer image data and control signals to a video server via an Ethernet or wireless network. However, these also left a lot to be desired in terms of reliability, and the resolution was not really up to the task.

Decentralized System With 'Intelligent' Cameras

That is why Ultrajaya decided to install a completely new camera system to secure their indoor and outdoor areas, as well as the construction site of the new production facility in October 2007. The final decision fell to solutions provided by the renowned German IP video and complete system manufacturer MOBOTIX. Ultrajaya

decided to install the MOBOTIX system and PT. Sirca **Global Niaga**, its Indonesian partner, assisted in the transition process. "We were really impressed by the reliability of the system, the high resolution of the cameras, and above all, the decentralized MOBOTIX system that enables you to store images on the camera for several weeks, regardless of the image size or transfer rate," explains Bayoumi.

Usually, cameras only supply the images, while processing and recording take place later on a central PC using video management software. However, with the decentralized MOBOTIX concept, a high-speed processor and, if requested, a digital long-term flash memory (MicroSD card) are built into every camera. The PC now serves purely for viewing and controlling the camera, but not for analysis or recording. The benefits: The system requires less network bandwidth since the cameras themselves process the data and do not send a constant feed of information to the computer for analysis. Plus, fewer cameras and recording devices are required.



Perfect Recording – Even In High Temperatures And Humidity

Robust Cameras For Extreme Conditions

Another important factor was the sturdiness of MOBOTIX cameras. Marvin Bayoumi comments: “The cameras are installed beneath cold and warm piping to monitor production in the cooking and ultra heat treatment areas. These pipes can emit a lot of steam at times. This means that the cameras have to be resistant to extreme conditions, with high temperatures and humidity levels.” Because the camera housings are compliant with protection classes IP65 and IP66 and do not include any moving parts, they can withstand dust, dirt, water and heat.

What’s more, Ultrajaya can save costs thanks to the MOBOTIX system. There are no license or upgrade fees required for the proprietary MxControlCenter software, which can be connected to an unlimited number of cameras for centralized evaluation. MOBOTIX supply the video

management software for free. And since the cameras can be supplied with power via the network cable (Power-over-Ethernet, or PoE), the company was able to lower its costs for wiring its buildings. “We can pass on important information or security warnings via Voice-over-IP using the camera’s data cable. This is why we have combined some of the cameras with external loudspeakers and amplifiers,” says Bayoumi. Some cameras are also connected to manual fire alarms for use in emergencies. If an employee presses this button in an emergency, his location will be displayed in MxControlCenter.

Four Project Phases

Ultrajaya is currently operating a total of 60 MOBOTIX cameras. The cameras were installed between the end of 2007 and the end of 2012 in four project phases: The first phase of the project was focused on monitoring the production zone, starting

with the warehouse for raw materials, cooking (ultra-heat treatment), filling, delivery of fresh milk, including the product packaging stage. Ultrajaya used the M24M Allround model for this area. The company opted for the weatherproof Q24 camera with 360-degree panorama view for the cooking area, where high temperatures and humidity levels prevail. The latter was also put to use in securing the outdoor area. The M12D model functions as the day/night camera for monitoring poorly lit areas of the building and premises.

In the second phase of the project, Ultrajaya secured the construction site of the new production facility to prevent thefts. D14 cameras are installed alongside the Q24M. The cameras were linked to the control center via a fiber-optic cable, which guarantees reliable data transfer.



The third phase focused on preventing theft and sabotage of products and goods in the high-risk areas of the company.

In the fourth phase, Ultrajaya upgraded the security of their outdoor areas in order to better capture the forklifts, the incoming and outgoing trucks and vehicles, and even the faces of the people moving around the premises. “The detailed resolution enables us to recognize people and license plates on vehicles to a high degree of accuracy,” Bayoumi points out.

Security Across The Whole Premises

Now the entire company, both indoors and outdoors, is protected by MOBOTIX cameras. “This means we can maintain security across the whole premises and quickly get to the bottom of thefts. The cameras have already proved themselves, particularly under the extreme conditions that

occur during the ultra-heat treatment of milk,” Bayoumi concludes. Ultrajaya will be installing 30 additional cameras in the production area over the course of 2013 to be able to capture images with more precise details, such as the number of product labels.

Basic system information:

Outdoor cameras:

M12, M24, Q24, D14

Server:

NAS system

Control centers:

One PC, MxControlCenter

MOBOTIX has developed and manufactured IP video systems, video management and analysis software in Germany since 2000.


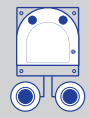



MOBOTIX stands out for its **high level of reliability**. All outdoor cameras are subjected to a stress test for temperatures between -30°C and +60°C (-22°F and +140°F). Without additional components, without heating or cooling and with no moving parts (for example auto iris), they are virtually maintenance free.





MOBOTIX delivers a **perfectly matched package**, starting with the microSD card for storage management and HD audio (microphone and speaker) with VoIP telephony through video analysis, a professional video management system and motion detection software reducing false alarms.





The **decentralized architecture** means that a central computer is not required and the network load is minimal. The intelligent cameras from MOBOTIX process and store image data themselves, trigger events and, in the event of remote access, manage the frame rate and resolution depending on the available bandwidth.





The **6MP Moonlight sensors** and complementary **thermal imaging technology** ensure reliable detection of moving objects, even under the most challenging light conditions and over long distances. As a result, it is possible to cover large areas with just a few cameras. Less power cabling, less IT infrastructure and fewer additional light sources are needed. MOBOTIX cameras are powered using standard PoE and do not require more than 4-5 watts.





An intelligent IP video system from MOBOTIX allows you to **reduce total costs**. The investment pays for itself after a short time and the free-of-charge software and updates ensure it is a future-proof investment.

Outdoor Dual Lens			Thermal	
M15/16 AllroundDual	S15/16 FlexMount	D15/16 DualDome	M15/16 Thermal	S15/16 DualThermal
				
Robust for extreme conditions	Flexible dual camera	Modular dual camera	Thermal dual	Thermal dual

Outdoor Single Lens			
M25/26 Allround	S15M/26 FlexMount	Q25/26 Hemispheric	D25/26 Dome
			
Robust for extreme conditions	Discreet, video analysis	Discreet, video analysis	Modular Fix dome

Indoor			
i25/26 Panorama	c25/26 Hemispheric	p25/26 Allround	v25/26 MiniDome
			
180° hemispheric	Discreet, video analysis	Modular ceiling camera	Vandalism camera

Door Modules			MxDisplay+
Camera	BellRFID	Keypad	Remote Station
			

Door Sets			
Double Frame		Triple Frame	
			

Retailer information: