

## Hyundai Heavy Industries Co., Ltd. uses Axis IP-based security system for its new headquarters building.

The company achieves highly efficient access control and facility security thanks to Axis megapixel network cameras.



Organization:  
Hyundai Heavy Industries  
Co., Ltd.

Location:  
Ulsan, South Korea

Industry segment:  
Industrial

Application:  
Access control and  
facility security

Axis partner:  
Marvel Quest

### Mission

Hyundai Heavy Industries Co., Ltd., the world's largest shipbuilding company, began business in 1972. To meet the company's expansion plans, Hyundai Heavy Industries constructed a new headquarters building close to the old one. The company was well aware of the limitations caused by the analog system in the old headquarters building, such as no compatibility with the access control system, occurrence of blind spots, image quality degradation with ageing cable, and costs associated with periodic cable replacement. For its new 15-story headquarters building, the company wanted to ensure full interoperability with the security, access control and building management systems, while achieving better image quality and scalability.

### Solution

Hyundai Engineering & Constructions Co., Ltd., tasked with designing the new building, discovered a design error during the final check. The design drawing that reflected a state-of-the-art access control system still

had an ancient analog-based video surveillance system. Hyundai Engineering & Constructions, whose original aim was to design a building where the whole system was under integrated management using IP, had no other choice than to change the plans.

Marvel Quest, an Axis Solution Silver Partner, in cooperation with the design team of Hyundai Engineering and Constructions, suggested Axis megapixel network cameras: they can cover an area in much more detail than analog cameras, provide excellent image quality, and are IP-based, thus ensuring full compatibility with other systems. Axis network cameras had already been implemented successfully by various Hyundai affiliates such as Hyundai Motor Company.

### Result

Axis network cameras, which have been integrated with the access control system, provide much better identification of visitors. They also greatly minimize storage

"Thanks to this state-of-the-art network video solution - with its excellent system flexibility and scalability, we will further enhance our highly advanced corporate image as the world's number one shipbuilding company by linking manufacturing facilities, operation monitoring and various other systems together."

A Hyundai Heavy official.

space for recorded video and bandwidth consumption through the use of motion detection. Blind spots are now all eliminated by optimally placing the AXIS 216MFD and AXIS 211M Network Cameras. The areas that had to be covered by 2 or 3 analog cameras are now being covered with only one Axis megapixel network camera. The new headquarters building is thus being monitored with fewer cameras, which provide much broader coverage and better image quality. Work performance has improved remarkably thanks to compatibility with other systems.

### High-quality video surveillance with megapixel network cameras

The headquarters building of Hyundai Heavy Industries has all core teams from each business unit such as administration, purchasing and factory control. Thus, facility security and access management play a key role. The existing 4-story headquarters building did not have an interface between the access control system and the analog video surveillance system, which made it difficult to identify card users. With the Axis solution, the IP-Surveillance and access control systems can now communicate and match the information in the access card with face recognition data, resulting in accurate identification. Unauthorized access is efficiently controlled and the system's advanced capability is appreciated for preventing confidential information leakage.

One of the system's biggest strengths is that all blind spots inside and outside the surveillance area have disappeared. The analog cameras at the existing headquarters had a very narrow viewing angle and as a result many cameras were required to ensure full coverage. In addition to the high cable and power installation costs for each camera, image quality deterioration occurred two or three years after the installation and was also a huge problem. The new megapixel network camera system provides much better image quality than analog cameras, which is proving very useful for securing evidence.

"As there were so many different choices available with megapixel cameras, it was possible to tailor the design and specification to the environment and achieve cost savings. Quite often, people think the network camera is more expensive. But, if you use only one highly efficient megapixel network camera instead of two or three analog cameras, you will see no difference," a Hyundai Heavy Industries official said. Namely, small and inexpensive cameras are used for places where highly expensive cameras are not required so as to save costs without impacting work performance. For example, the easy-to-install and relatively inexpensive AXIS 211M Network Camera was used for the underground car park, the AXIS 216MFD Network Camera, which is discreet and blends with the interior, was used for corridor and office applications. Where intensive monitoring was required, an AXIS 215 PTZ Network Camera was installed. Power to all network cameras is being supplied by Power over Ethernet to realize a completely uninterrupted system.

### Effective video recording and operation with intelligent network cameras

The cameras' intelligent motion detection feature is used to enable an integrated operation where 70 network cameras are maintained by one operator. The functionality also helps minimize storage space and bandwidth usage. Remote surveillance is now possible wherever the network is connected. Immediate response is possible as an alarm is triggered if an unusual event occurs.

Eventually, a very effective operation is now possible with little manpower and maximized surveillance coverage. Hyundai Heavy Industries Co., Ltd. is planning to link manufacturing facilities, operation monitoring and other systems together and set up an advanced IP-based integrated system that will further enhance the company's corporate image as the world's number one shipbuilding company.

