

## High-definition, intelligent "Sky Net" enhances city's quality of life.

Axis helps to build HDTV video surveillance system in Guilin, Guangxi, China.



Organization:  
Guilin Municipal Public  
Security Bureau

Location:  
Guilin, Guangxi, China

Industry segment:  
City surveillance

Application:  
Safety and security

Axis partner:  
Beijing Xiaotong  
Network Science &  
Technology Ltd. Co.

### Mission

According to Guilin Police Bureau's "Social Management Video Surveillance System Construction Program 2012", Guilin municipality planned to complete a network that comprised 23,000 video surveillance points in 2012, and at the same time, build supporting infrastructures that consist of a video transmission network and a surveillance system platform, achieving interoperability, intermodulation and mutual control.

The camera network is to be expanded from over 8,000 existing cameras to up to 30,000 cameras within a year, creating an extremely huge "Sky Net". Each camera will have a range radius of 300 to 400 m, with a 360-degree ring-shaped rotation, and be capable of 24-hour real-time surveillance. Resources can be activated to track targets from all directions when incidents occur.

Guilin "Sky Net" is truly a video surveillance system. Video surveillance equipment is installed at traffic arteries, public security access points, public gathering locations, hotels, schools, hospitals and places with potential security threats.

The network is used to classify image data from sources, such as criminal cases, public security cases, traffic violations and city management violations, etc., so as to provide reliable image data that can be used to strengthen the integrated management of the city, to prevent and solve crime, and to manage unexpected disasters.

### Solution

Axis' innovative technology is fully employed in the "Sky Net" upgrading and reconstruction project. AXIS Q1602 Network Camera uses advanced Lightfinder technology that allows for realistic colors under low light conditions. This camera model is mainly employed in locations with existing cameras, and where there is high incidence of unsolved cases committed in poor light conditions at night, such as alleys, remote areas of the city and at the city fringes. The camera is able to effectively differentiate pedestrian body shapes, and the style and color of clothing, without the need for extra lighting. This provides police with effective video clues for criminal investigation as and when criminal cases occur.

"This is the result, and the (AXIS Q1602) image is actually in color! This will provide more clues for night-time criminal investigation work."

Liang Gong, Guilin Municipal Public Security Bureau.

AXIS Q1604 has a maximum wide dynamic range of 120 dB, powerful highlight that suppresses backlight compensation, and an excellent minimum illumination function, which enables the camera to operate with long term stability under any harsh environment. It is a HDTV IP camera that produces excellent results, even in poor lighting conditions, and in particular, when environmental illumination is low or in strong backlight environments (such as night-time road monitoring). In the Guilin "Sky Net" upgrading and reconstruction project, AXIS Q1604 is employed to clearly survey passing vehicles on roads with its excellent video performance, which enables effective recording and identification of license plates without the need for extra lighting.

Axis' front-end products are able to seamlessly access the existing Keda security platform of Guilin's Public Security Bureau as they are open and compatible. Coupled with excellent imaging results under low illumination and extremely low bandwidth, the video image of the transformed system is able to link well with the original analog system.

## Result

Axis' innovative technology in IP cameras brings many tangible benefits to the "Sky Net" program. AXIS Q1602's excellent low illumination results solve the crucial issue of "visibility" under low light conditions and at the same time, ensures that the image is in color, making the technology the first of its kind in the industry. Other than a superior wide dynamic range, the AXIS Q1604 has an excellent glare suppression effect that can successfully suppress strong train headlights, and enable license plates of passing vehicles to be captured in real-time, laying the foundation for critical images of license plates meant for subsequent retrieval and accurate determination of suspect vehicles. The implementation of the "Sky Net" project has played an important role in the social security of Guilin. The police have relied on it to successfully solve more than 1,500 various cases. The "Sky Net" has played a significant role in crime prevention and control, and in city security management.

