

## Axis empowers Shaanxi Rural Credit Cooperative to improve its HDTV video network system to a new high.



**Organization:**  
Shaanxi Rural Credit Cooperatives

**Location:** China

**Industry segment:**  
Banking and finance

**Application:**  
Safety and security, access control, remote monitoring

**Axis partner:**  
Shaanxi Xinkelong Electronic Technologies, Co., Ltd.

### Mission

As network technologies continue advancing and IT deployments go further, the video surveillance industry has stepped into the network era. Video surveillance is developing towards networking, modularization, and high definition, to meet user demands for high definition, robustness, reliability, ease-of-use, resilience, scalability, and ease of installation and maintenance.

Shaanxi Rural Credit Cooperatives Union (hereinafter referred to as "the Union") is growing rapidly, and currently maintains more than 3,000 points of presence and hundreds of off-premise ATM self-service sites. HDTV network cameras were needed for the key areas at the banking sites, including main gates, bank note handover areas for cash carriers, outer/inner areas, counters, and ATM self-service areas, to address the business-critical requirements for "clear faces", "clear bank notes", "clear details", "clear interior/exterior environments", etc.

### Solution

On the basis of the specific HDTV surveillance requirements of the Union's points of presence, Axis network cameras were selected with functionalities and performance purpose-designed for banking, and in accordance with the actual conditions on the sites, as well as the business requirements, the Union formulated the plan as follows:

**1. Main gates of the banking offices:** Bank employees enter/exit the offices through the main gates, and all clients access the offices through the main gates for financial transactions. So, additional HDTV network cameras at the main gates enable facial recognition. Devices deployed: AXIS Q1604 Network Cameras with WDR functionality.

**2. Back doors of the banking offices (bank note handover areas):** Bank note handover is carried out in areas between the banking offices and cash carriers, for cash entry into the offices in the morning and cash return to the vaults at night. Naturally, the risk of robbery is great. Devices deployed: AXIS P1354 Network Cameras with Lightfinder technology.

"The world-leading Axis products bring superior image quality, and their unique features and functionalities meet the Union's needs. Remarkable low light, Wide Dynamic Range IP cameras provide the high degree of color revivification, high image clarity, as well as stable and reduced bandwidth and storage requirements, which are just what the Union wants. In particular, Axis' panoramic view products feature wide coverage per unit, and offer outstanding functionality and performance to reduce the Union's investment."

Cai Dong, general manager of Shaanxi Xin Ke Long Ltd.

**3. Banking office environments:** The banking office environments are the areas where clients queue to handle financial transactions. In this place, risks are greater since cash flows between the bank tellers and clients, and the clients are allowed to move as they like. Devices deployed: AXIS M3007-PV Network Dome Camera with 360° panoramic view.

**4. ATM self-service settings:** All ATMs in self-service settings were originally equipped with analog pinhole cameras, which didn't provide good facial recognition or identification for access control. Devices deployed: AXIS Q1604 Network Cameras with WDR functionality.

## Result

**1. Application of Wide Dynamic Range technology:** The Union needs details about persons and vehicles in its operating environments, so the cameras are expected to provide high definition, accurate color revivification, superior WDR effects, sufficient data that allows for identification of the colors and license numbers of the passing vehicles, and excellent image quality, free from high light impact in the environment.

AXIS Q1604 Network Cameras were deployed which feature WDR, providing "dynamic capture" capabilities, enabling an ideal solution for monitoring applications in the highly variable lighting conditions, particularly, in circumstances where the light comes through a tunnel creating both shadow and bright zones. In these demanding environments, AXIS Q1604 allows for the user to clearly identify people and objects. The cameras' Wide Dynamic Range with dynamic capture uses several images with different exposure times. Advanced image processing results in video with exceptional clarity and sharpness. Therefore, no part of the image turns out too dark or too bright.

**2. Application of the Lightfinder technology:** At the back doors of the Union's banking offices (bank note handover areas), the cameras are expected to provide high clarity, accurate color revivification, and particularly, low light performance for poor lighting conditions at nighttime.

AXIS P1354 Network Cameras with Lightfinder technology were deployed. AXIS P1354 is a fixed day and night camera with superb image quality, delivering excellent H.264 performance in a robust design. Superior video quality is provided with progressive scan in multiple individual H.264 streams, as well as Motion JPEG streams. The focus assistant, remote back focus and pixel counter features simplifies installation. The outstanding light sensitivity supplied by Axis' Lightfinder technology, with maintained colors even in very poor lighting conditions, is obtained by a combination of Axis' expertise in image processing, system-on-chip development and selection of the best optical components.

**3. Application of 360° panoramic view cameras:** In the outer environments in the Union's banking offices, it is necessary to monitor facial features, and activities of the clients during business hours as well as unauthorized entry. Therefore, the cameras are expected to provide high definition, accurate color revivification, no blind zone and wide coverage.

AXIS M3007-PV Network Cameras with 360° panoramic view cameras were deployed. They offer multiple viewing modes: 360° overview and dewarped imaging technologies, including panorama, dual panorama, quad views and support for digital pan/tilt/zoom functionality. Multiple video streams in H.264 and dynamic JPEG formats can be transmitted simultaneously.

**4. Ultra-low bandwidth and storage requirements:** The Union's existing distributed management model will be transformed into centralized surveillance and management with city-level secondary banking surveillance centers, which are then connected to the provincial and national security networks, thus extending the monitoring coverage and tools, freeing the operators at the local sites from device maintenance, and improving the overall efficiencies and effects. Axis cameras with high-performance video compression algorithms, deployed in the Union, provide the ability to transmit the HD images with the limited bandwidth. This reduces bandwidth requirements while ensuring the high quality of images.

