

## Bank Video Surveillance Solution

Zhejiang Uniview Technologies Co., Ltd. is the pioneer and leader of IP video surveillance. Heritages profound IT technologies, we founded independently in December, 2011. We are the third largest manufacturer in the overall video surveillance market in China and 6<sup>th</sup> in global market. We insist on open cooperation, focusing on high quality and improving innovation ability.

Product Line:

Network Camera, NVR, IP Storage, Decoder, Keyboard, Switch, Monitor and Network Cable



# BANK VIDEO SURVEILLANCE

SOLUTION



[www.uniview.com](http://www.uniview.com)

Sales: [overseasbusiness@uniview.com](mailto:overseasbusiness@uniview.com)  
Technical Support: [globalsupport@uniview.com](mailto:globalsupport@uniview.com)

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# SOLUTION BACKGROUND

Bank is a financial institution licensed to receive deposits making loans. There are various important facilities in the bank, such as ATMs and coffers, and the bank would receive a large number of clients everyday. Hence, a complete and comprehensive bank video surveillance solution should take these into consideration. It should cover all critical areas without any blind spot and realize unified management at headquarters.

A bank would have many branches. It requires headquarter monitors all branches with a dedicated network. UNV bank surveillance solution can solve the issues of interconnection even though there is no dedicated network in some branches. Uniview has been in video surveillance since 2005, owning mature bank surveillance solution which solves any potential security challenges and can be applied in all kinds of bank-related surveillance scenarios.

## SOLUTION OVERVIEW

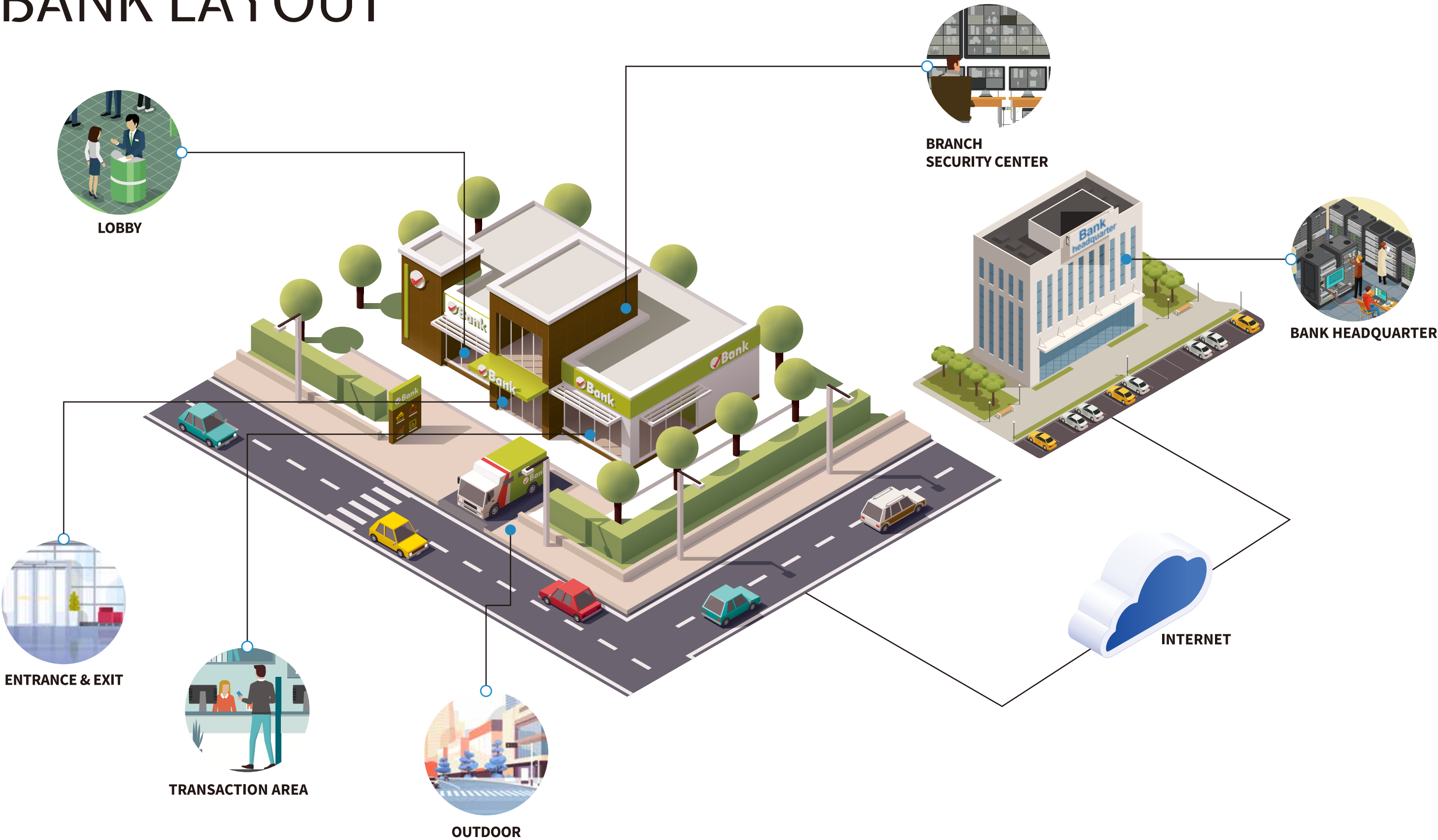
# Challenges

- ▶ Safety issues, such as robbery, burglary and malicious vandalism
- ▶ Operation issues, such as transaction dispute, poor customer experience and staff arrangement
- ▶ Cyber security issues, lack of cost-effective and safe video transmission from branch to headquarters
- ▶ Require unified management of bank headquarters

# Solutions

- 01 7\*24 HD video surveillance
- 02 Smart functions improve management efficiency
- 03 Advanced and reliable technologies ensure cyber security and video safety
- 04 Optimized EZCloud, easy to interconnect over Internet
- 05 Unified management platform at headquarters with various functions

# BANK LAYOUT



# BANK SCENARIOS

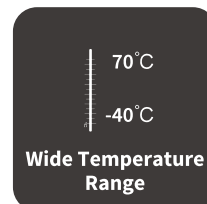
## OUTDOOR



Outdoor environment is complex because of different weather and low light condition at night. In addition, security issues should also be taken into consideration. UNV outdoor cameras are resistant to all kinds of weather conditions with high quality design, super starlight and various smart detection functions such as intrusion detection, crossing line detection, etc.

### All-Weather Adaptability

- IP67 protection against dust and water
- With wide temperature range, UNV cameras guarantee the normal operation at extreme hot and cold conditions



### Super Starlight

- F1.2 aperture lens and Sony STARVIS image sensor
- Produce colorful video images under ultra-low light conditions (0.0005Lux) without losing details



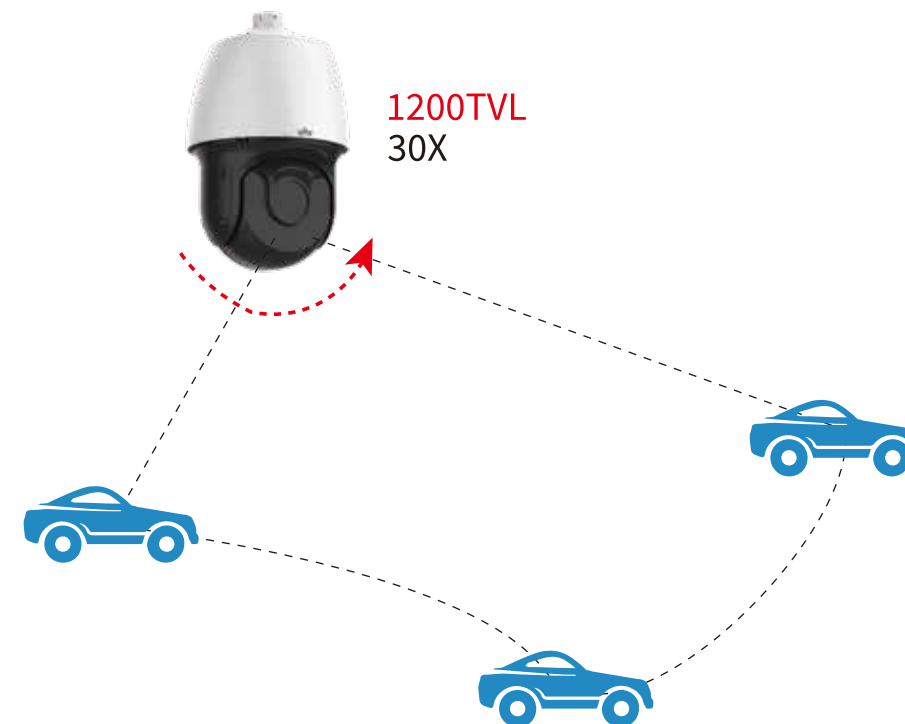
Super Starlight



Common Starlight

### Auto Tracking

- PTZ dome cameras can track and trace the path of moving objects
- An alarm will be triggered when a moving object entering into a preset area



### Intrusion Detection & Crossing Line Detection

- Preventing unauthorized entry with intelligent video analysis technology
- Reduce the false alarm rate



Intrusion Detection



Crossing Line Detection



## ENTRANCE & EXIT



Entrances and exits are the key areas for video surveillance. Adapting different illumination intensity and ensuring accurate people flow data are significant for cameras which are installed at entrance and exit.

### WDR

- Sony STARVIS sensor with UNV self-developed ISP processing technology
- Deliver clear and visible images in high-contrast lighting scenes



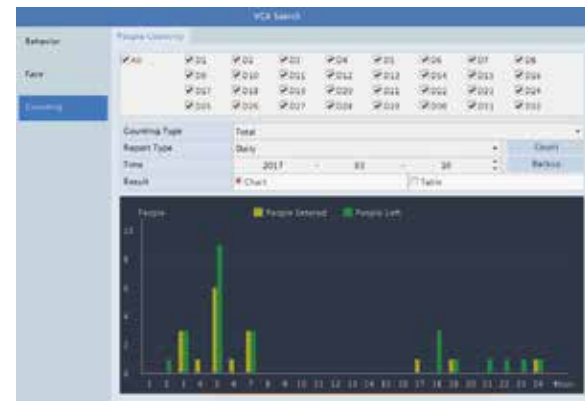
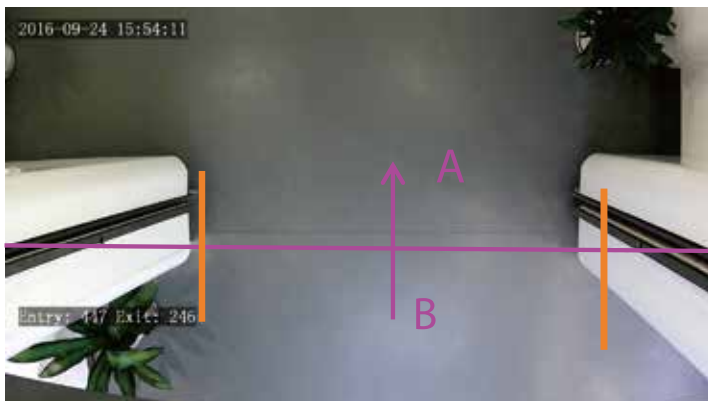
WDR ON



WDR OFF

### People Counting

- High accuracy of statistic, suitable for entrances and exits
- Export daily/weekly/monthly/yearly reports through client



## LOBBY



In a bank, there are lots of people waiting in lobby area, it requires high detailed images and clear facial images

### Smart IR

- Smart IR function can balance the luminance level between distant and nearby objects
- Providing consistently clear image of moving objects under low light scenes



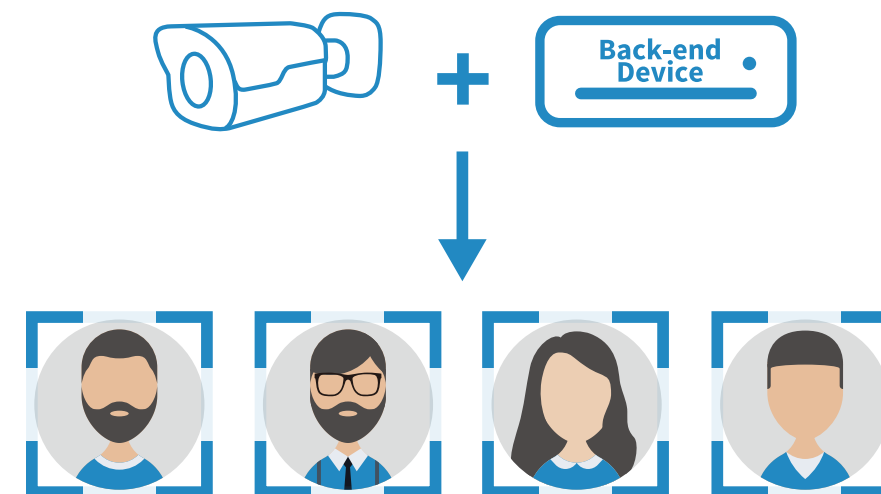
Smart IR ON



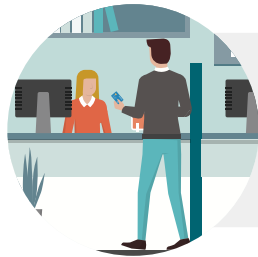
Smart IR OFF

### Face Detection & Face Recognition

- Face detection & recognition are based on intelligent algorithm in cameras and back-end devices
- Snapshots and videos are stored in back-end devices
- Spot a target person quickly



## TRANSACTION AREA



There are a lot of financial transactions happening every day in transaction area. Cameras are required to record everything to ensure the safety of bank and avoid customer disputes.

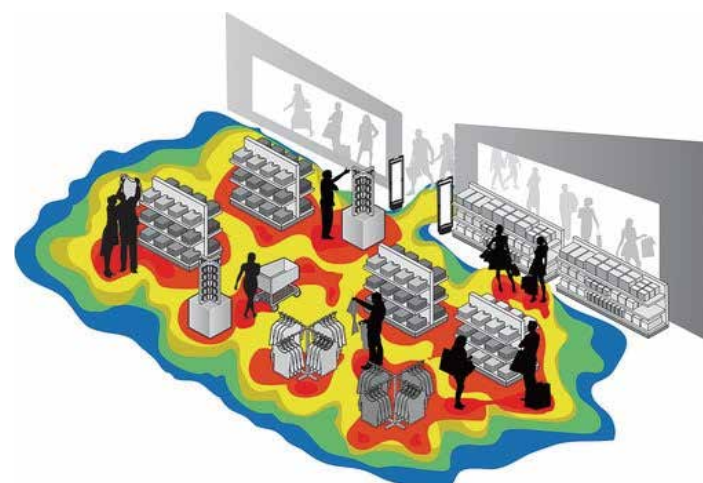
### Digital Zoom

- Digital zoom function supported
- Providing more details with high definition cameras, suitable for transaction area

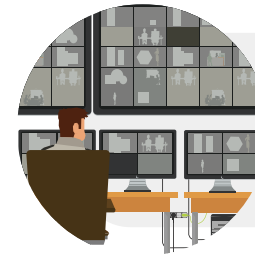


### Fisheye Heat Map

- Extensive range of view and sufficient details could be provided by only one camera
- Multiple installation modes: ceiling, wall and desktop mount
- Heat map function helps to analyze and improve business



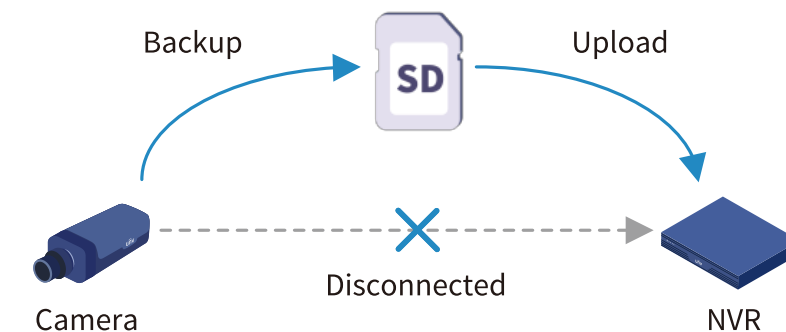
## BRANCH SECURITY CENTER



Branch security management center plays a significant role in the whole systems. Security guards and bank managers are able to check live view and playback through TV wall, PC and other display devices. Hence, the reliability of NVR and data safety are important for bank video surveillance solution. Moreover, cyber security is another vital part due to the fact that the video stored in branch will be sent to the headquarters.

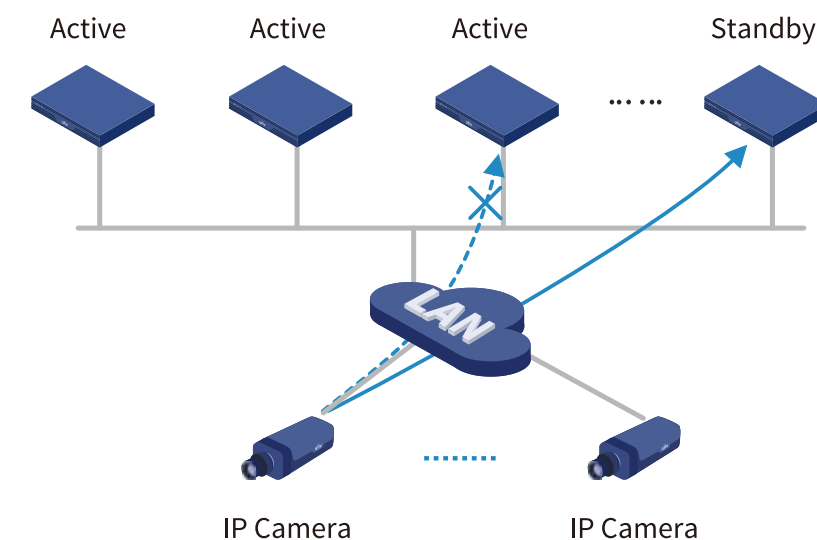
### ANR

UNV cameras can automatically store video recordings into camera's SD card when network is disconnected. Once the network is restored, the video recordings will be sent back to NVR. Thus, all of video recordings would be saved even network fails temporarily.



### NVR N+1 Standby

UNV NVRs are deployed with N+1 hot backup capability. In the same network system, if any active NVR is out of service, the standby NVR will automatically takes over.



Digital Watermark

Video recordings can be watermarked with customized content to prevent video recordings from unauthorized editing, which ensures creditable video record.



Cyber Security over Internet

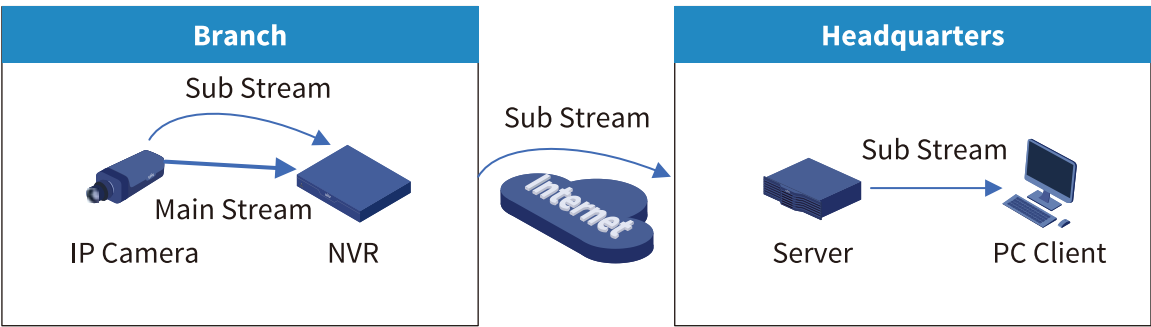
It would face a lot of potential safety issues when transferring video stream through Internet. However, with the help of HTTPS & MD5 encryption, dynamic key and isolated user data base, UNV optimized EZCloud solution can protect video stream from been hacked.



Cost-Effective System

Ultra 265 + Sub Stream

Uniview provides Ultra 265 + sub stream solution. Headquarters' live view and playback use sub stream by default, which saves 62.5% bandwidth expense.



Low TCO IP Storage

UNV IP storage adopts unique structure, allowing 48 bays in the 4 Units' height with front panel hot swappable. Intelligent multistage speed fan can also help to save energy.



4U48 Bays



Hot Swap HDD



Multistage Speed Fan

BANK HEADQUARTER



Bank headquarter is the administration center of a bank taking full responsibility for managing all the devices of branches. It has the right to access to cameras in every branch, and backup the record from branch NVRs. Video stream from branch to headquarters is usually transferred through internet, which will consume much Internet bandwidth at headquarters. So realizing a cost-effective unified management through Internet is a challenge for bank headquarters. Based on that, UNV offers effective and low-TCO system with various functions to guarantee a normal operation.

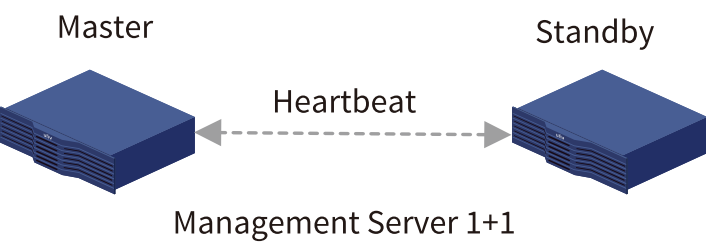




# VMS Features

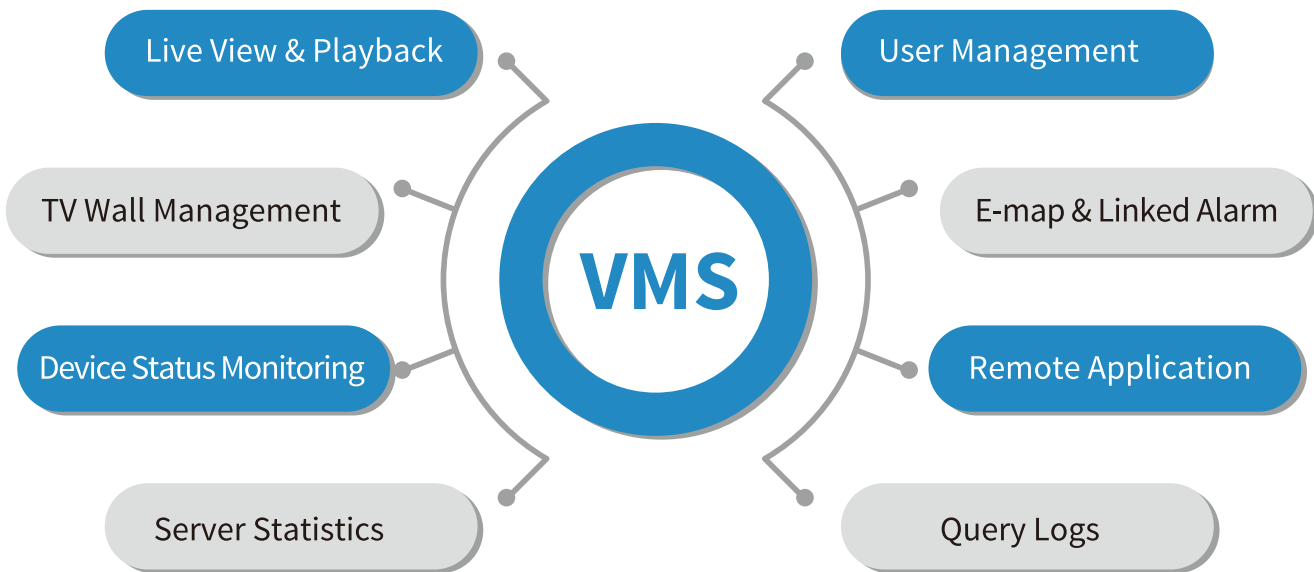
## VMS 1+1 Hot Spare

UNV VMS support 1+1 hot spare function. If the Master VMS breaks down, the Standby VMS will take over the service immediately. All applications and data will be transferred back to Master VMS when it recovered from failure.



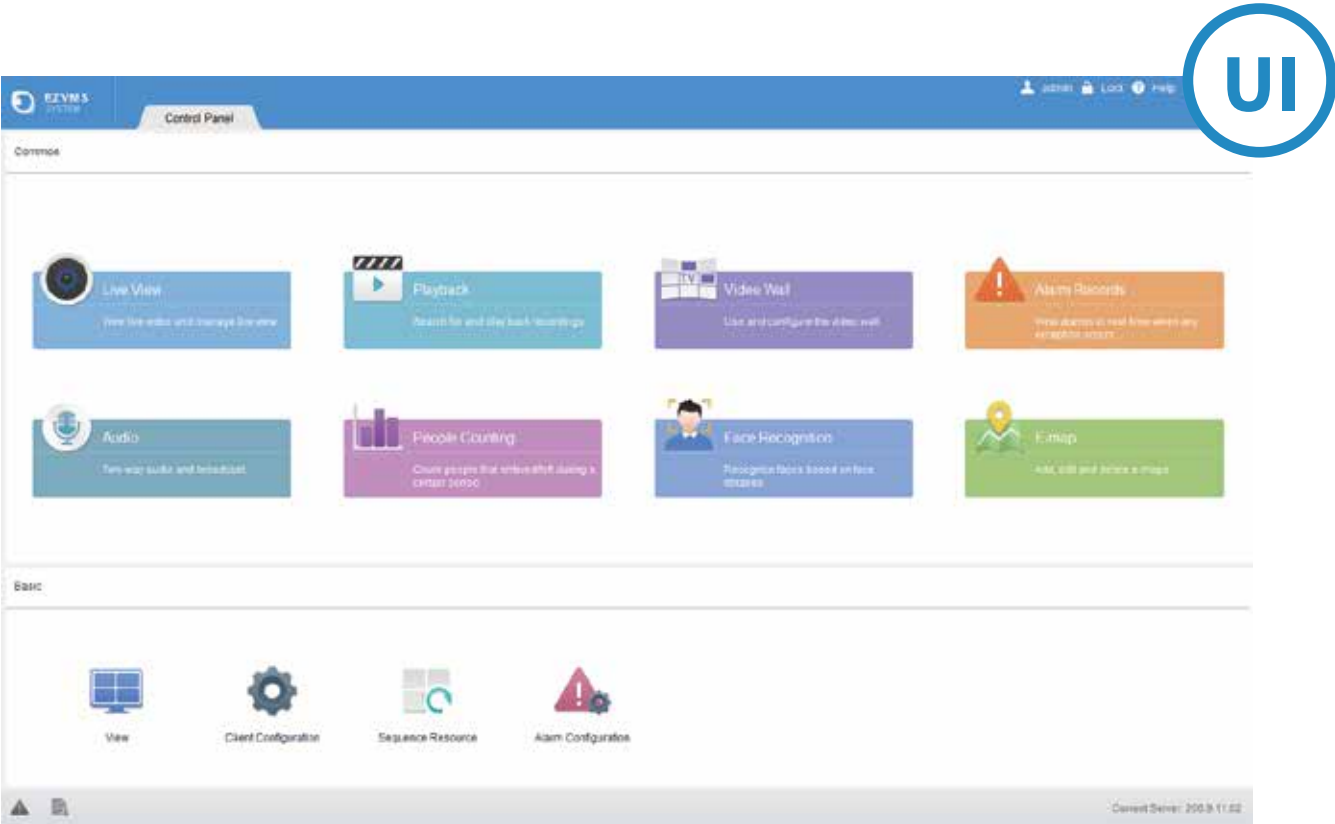
## Complete CCTV Function

UNV VMS is a reliable management platform with various functions. Live view/playback, TV wall management, and user role management are all available on VMS client.



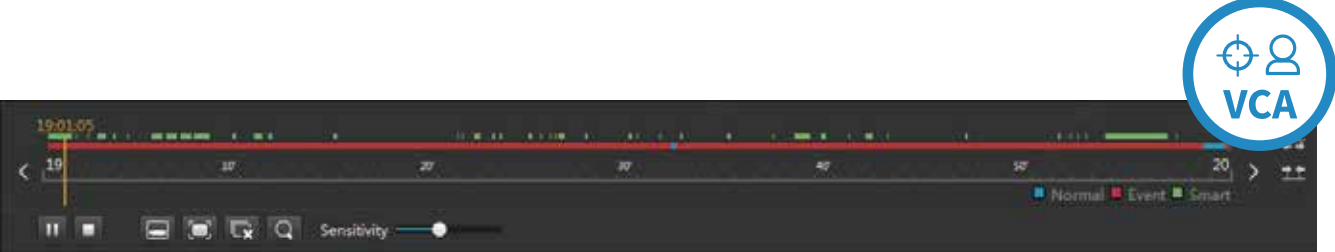
## Friendly User Interface

UNV VMS is an easy-to-use management platform designed for CCTV system. Its flexible and feature-rich interface helps security guards easily and more efficiently verify alarms and coordinate a response.



## VCA & Intelligent Playback

VCA & Intelligent playback supports to playback video recordings based on event types such as movement detection, video loss, alarm input and so on.





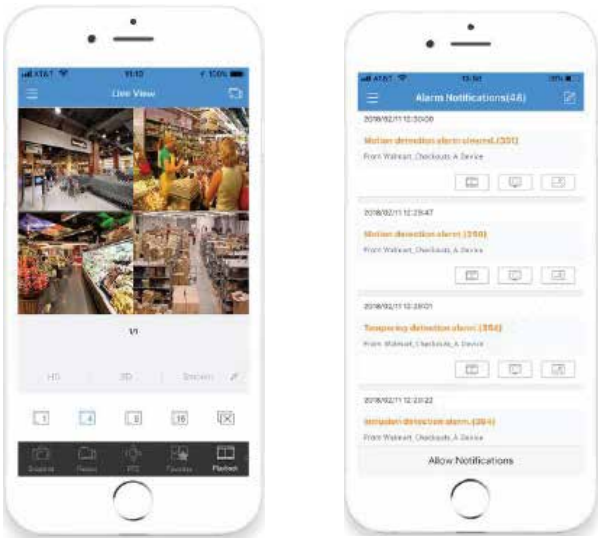
E-Map

VMS client supports flashing alarms on E-maps and links live view on a video wall. It enables security guards to faster locate event area, which significantly shortens their reaction time.

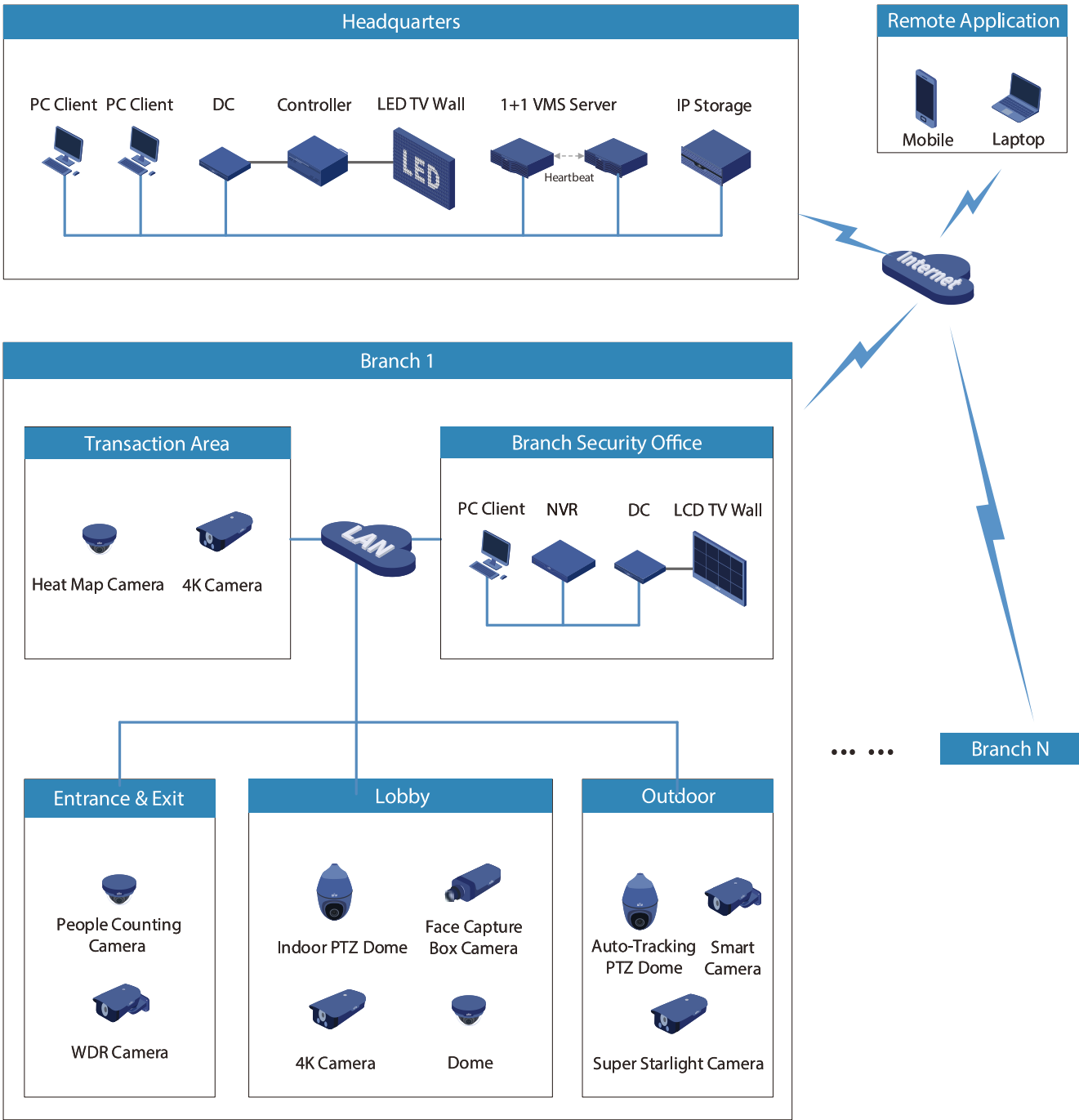


Remote Application

Bank managers are able to check live view, playback and alarm notifications at anytime and anywhere through UNV EZView APP. It helps managers to work easier with higher efficiency.



SOLUTION TOPOLOGY



## SUCCESSFUL CASES



### BICEC Bank in Douala, Cameroon

BICEC bank, one of the top 3 banks in Cameroon with the main shareholders from French BPCE bank group and Cameroon government, which is founded in 1997 and headquartered in Douala, BICEC bank has 39 branches all over Cameroon. Uniview provided a complete video surveillance solution for BICEC bank. More than 500 cameras have been deployed to protect every corner in the building, especially the check-in desk, bank counter, main entrance/exits, underground parking lot, etc.



### Cash Clearing Center, Zambia

Armaguard is the largest security company for cash transport among almost all of the banks in Zambia. Almost all of the banks would clear cash here. Armaguard Company owns a large office building and more than 50 cash trucks. IP cameras are installed in the ground floor of the Armaguard cash clearing center. The center is under extremely strict security protection. Every person go inside will have security check. No money can be taken inside, not even a coin. The clearing center have 14 clearing areas in total, each are under monitoring with 6 cameras.



### Bank of East Asia, Shanghai

The Bank of East Asia Limited, often abbreviated to BEA, is the 6th largest licensed bank in Hong Kong in terms of total assets. Uniview provides a complete banking solution for BEA in Shanghai. This solution covered more than 100 branches and installed more than 1000 network cameras. Cameras are equipped with WDR function and smart functions such as face recognition.



### China Construction Bank Wuhan Data Center

Wuhan Data Center is the first data center for China Construction Bank (CCB). There are more than 2,000 cameras installed, and covered IT data center, campus, ECC control center, R&D center and call center. UNV video surveillance solution combines VMS, IP storage and high-definition cameras, realized alarm linkage with multiple security subsystems such as alarm system and access control system.