ZKBio CVSecurity

All-in-One Biometric Security Advanced Solutions

Access Control | Time & Attendance | Elevator | Visitor | Parking | Guard Patrol | Video Management | Consumption | Facekiosk | Intelligent Scene | Temperature | Entrance Control | Locker Management | Intrusion Alarm

ZKBio CVSecurity provides a comprehensive web-based security platform with the adoption of hybrid biometric and computer vision technology. It contains multiple modules: Personnel, Time & Attendance, Access Control, Visitor Management, Parking, Elevator Control, FaceKiosk, Video Management, Mask and Temperature Detection, Online/ Offline Consumption, Guard Patrol, Intelligent Video Analytics, Locker Management ,Intrusion Alarm,Service Center, and other smart sub-system.

The platform adopts micro-service development framework with robust system performance characteristics, such as high availability, scalable modules, fully secure communication, and solid third-party integration scalability.

By taking full advantage of our extensive experience in the access control industry , ZKTeco integrates video surveillance and smart analysis to study real-time video content and collect meta data to create an effective early warning system and issue a prompt response. So that ZKBio CVSecurity offers a precise verification after the incident, establishing a practical security ecosystem. The system ensures safety protection for people, vehicles and properties.

ZKBio CVSecurity attained ISO certifications for information security management and data protection measures.

ZKBio CVSecurity is compliant with ISO/IEC 27001:2013, ISO/IEC 27701:2019 & ISO9001.

Furthermore, ZKTeco's after-sales service attained a high standard and reached ISO20000.

Features

- Web Application
- Multi-point Deployment
- Flexible 3rd-Party System ntegration
- High Availability ZKBio HA Integration
- Visual Data Panel
- Scramble(Dynamic) QRCode Credential
- Mask & Temperature Detection Supported
- Visible Light Facial Recognition
- Video Patrol
- Global Anti-Passback and Linkage
- Entrance Terminal Management
- LPRCamera for Parking
- Flexible Elevator Control
- Smooth and Advanced Visitor Management
- Self-Service Visitor Management
- WhatsApp, LINE, SMS, Amazon SNSNotification
- FaceKiosk Information Screen
- Time & Attendance
- Professional Video Management System
- Intelligent Video Linkage
- Personal Trajectory
- Intelligent Target Search
- Smart Camera Perimeter Protection
- People Counting
- Smart Camera Tailing Detection
- Smart Camera Personnel Control
- Smart Camera Attendance Checking
- GIS Map
- Microsoft Active Directory
- Card Printer
- OCR
- Consumption Management (Online & Offiline)

ZKBio CVSecurity Key Features

General

- Supports 2 UI style (dark and light mode) switching.
- Supports user-defined visualization dashboards and shortcut menus.
- Supports 18 language, switch language directly through the Home page.
- Providing different report dashboards for personnel, access control, time & attendance, parking, visitor, entrance control module on the Home page.

Personnel Management

- Provides various types of credentials, including face, fingerprint, multi-tech cards, password, palm, vein and QRcode for multiple authentication methods.
- Supports import and export personnel information, biometric template, personnel photo.
- Supports quickly finding who is not registered with a face, fingerprint, palm, vein and multi-tech cards.
- Supports card format testing and custom wiegand format.
- Supports batch issue card, report lost card, reactive lost card.
- User can call different field from the AD Sever to map with the database.
- Integrated with OCRreaders and ID readers to improve registration efficiency.
- Pre-set card layouts and print photo ID cards with a card printer.

Access Control

- Supports remote door opening, remote door closing, cancel alarm, remote active lockdown, deactive lockdown, remote enabling/disabling the function of the passage mode timezone.
- Supports to set the door parameters include door validity period, verification mode, lock and open duration, Wiegand card format, REX Mode, card number reversal, REX delay, operation interval, REX timezone, door sensor type, anti-passback time, duress password,emergency password, passage mode timezone, disable alarm reminder, extend release time, open the door delay, and multi-personnel opening operation interval.
- Supports to set usage time of the door; the reader is usable during valid time periods of certain doors and unusable during other time periods. Time Zone can also be used to set Normal Open time periods or set access levels so that specified users can only access specified doors during specified time periods (including access levels and First-Person Normally Open). The system controls access according to Time Zones (Support maximum 255 time zones).
- Users who are in case of emergency or duress mode can open the door with a special verification way, and the system can receive the duress alarm information.
- In the real-time monitoring interface, it can operate the door, auxiliary input and auxiliary output; can monitor the connection status of the device,personnel entering and leaving, and the event logs; and support the platform alarm sound reminder and pop-up the personnel photo.
- Allow the super user to unlock the doors when it is locked. Also, the super user can remove the “Normal-Open-time” status of the doors.
- Supports advanced access control functions: support first person normally open door, reader definition, who is inside, LED data display, global anti-passback global interlock group, global interlock, global linkage,when the set event is triggered, the linkage alarm output, video recording, opening the door, sending Email, SMS, WhatsApp and Line, etc
- Supports Person Availability setting, it is mainly used to limit valid date/ after the first use of valid days/ use number of times of personnel in advanced access control area.
- Muster Point Function: By setting an Muster point and installing access control devices at this safety point; When firefighting or emergency occurs, the linkage activates the safety point and opens the door; After the personnel escape, they go to the muster point for verification, which is conducive to the rapid statistics of the escaped and dangerous personnel, and improves the rescue efficiency.
- NEW Supports ZKTeco's access control device-data transfer seamlessly : users only need to enter the serial number of the new access control device for data transfer from the original device. Also, this function supports restoring the setting from the original device.

Time & Attendance

- Supports enabling the device, disabling the device, restarting the device, and synchronization of software data to the device. It can obtain device parameters, view device parameters, check attendance data, re-upload data, obtain designated personnel data and clear the device data. The clearing of device data includes clear device commands, clear device photos, and clear device records.
- Multiple Attendance Methods: Supports multiple devices to be the time attendance point, such as Access Control Terminal LPRand Smart Camera. The system can export an original attendance transaction record and report.
- Supports for defining holidays types; The system supports sending the original attendance record and the daily check-in details to the specified user by mail or FTP at the configured time point in excel or txt.
- Supports setting up personal messages for employees, and display the messages when the employees check in on the device.
- Supports self-service login/rest period settings (normal time period and flexible time period). Users can set either a regular shift or a flexible shift. Each shift can be arranged daily, weekly, and monthly.
- Supports group, department, personnel, and temporary scheduling. Users can check the current system and find out the personnel who is not being scheduled. The application record directly affects the individual's attendance calculations.
- Supports employees' attendance management (i.e., when an employee applies for leave or overtime. Or when an employee makes up the check-in record). Users can check, review and calculate the employees' attendance records for approval.

Elevator Control

- Supports video capture and recording linkage. Also, it supports remote elevator door release and floor locking buttons. To enable/disable the operation of the usual opening period of the day.
- Supports destination control. Customize personal elevator calls regarding the individual access rights and access time. Supports linkage trigger personnel, trigger events, input points, output points, video linkage, effective time, email, and customize the linkage sound reminder information.
- Supports enabling, disabling, restarting, upgrading firmware, synchronizing time, and synchronizing all data operations on the device. Modifying the IP address, modifying the communication password, modifying the RS485 address, and modifying the fingerprint comparison threshold. In addition, Manually retrieved device parameters, personnel information, and event records.

Visitor

- Supports taking photos of visitors' accompanying items for archiving.
- Supports visitor account log-out automatically. When a visitor does not check out normally, the system will retain this visitor's information and remark on the visitor's status. When the visitor's visiting session expires, then the system will reset the status of the visitor automatically.
- Supports access control for visitors individually and sets the elevator access level for visitors. There are various authentication methods for visitors to check in. For example, facial recognition, fingerprint verification, multi-tech cards, passwords, and QR codes.
- Query the visitor's last visit location, visitor history, and timed pop-ups of unregistered visitors.
- Supports specifying an access control device as an automatic check-out location, and verifying on a designated access control device indicates that a visitor has signed out.
- Supports visitors' vehicle access control management by integrating with license plate recognition (LPR) services. The system can identify the visitors' vehicle's license plates quickly and identify whether the visitors' vehicle's license plates are on the allowlist. Users can customize a daily visitor list and send an email to the responsible personnel.
- Supports creating a visitors' monitor list. The visitors can be grouped into an allowlist and blocklist. The system can save the visitors' monitor list information and can be retrieved promptly when the visitors re-visit.

Parking

- Supports managing parking lot effectively. Able to display the number of available parking spaces and occupied parking spaces clearly.
- Supports security guard in reconciling accounts and changing accounts at the time of shift changes.
- Supports setting up parking fee plan for frequently visit vehicles and temporary visit vehicles. Supports setting up overtime charging and parking fee discount conditions.
- Supports batch import license plates using Excel.
- The security guard booth has a real-time view of entry and exit records, duty information, and remaining parking spaces. In addition, the security guard booth can operate manual release, shift change, allow list & block list management, vehicle inquiry in the field, charging details inquiry, and parking restriction management.

Temperature Management

- Supports real-time monitoring of people's temperature data and real-time tracking of people with a mask or without a mask.
- Supports recording the abnormal temperature data and inquires about the person with abnormal temperature.

Entrance Control

- Entrance Device can be upgraded firmware, restart the device, synchronize time, enable/disable, synchronize all data operations, and set as registration device.
- Supports obtaining device parameters, personnel information, event records,and query devices.
- Supports remote opening barrier gate, canceling alarm, remote normal opening, enabling the daily normal opening time period, and disabling the daily normal opening time period.
- Supports to set the access level and antipassback.
- Supports global linkage, linkage video capture, video recording, send email.

Intelligent Video

- Maximum supports 1024 video channels, support 64 channels prereview and 16 channels real-time playback simultaneously.
- Basic video management features such as real-time preview, PTZ control, video playback, and decoding video.
- View and handle intelligent camera alerts such as intrusion and fast movement on the software alarm center.
- Intelligent Video Applications: the system will trigger the alarm when the camera detects the person or the car whose faces or license plates are on the blocklist. When the alarm is on, it will initiate other linkages such as the door switch and auto email notifications.
- Supports searching of users and vehicles by picture and face/body/vehicle attributes.
- Video patrol helps security guards to increase situational awareness and patrol performance. The software can keep the entire patrol records.
- The watermark function protects and prevents users photos and data from being copied and reused without permission.
- Supports video intercom: After the device initiates the ringing, the host interface in the LAN will automatically pop up the intercom window to complete the operations such as answering, hanging up, and opening the door.

Intelligent Scene

- Tailing detection: By comparing the facial recognition and access control records, the system can validate whether the person has access rights.
- Perimeter Protection Function: Smart video analysis can detect people's line crossing using real-time snapshots or video recording. Also, the system offers an intelligent dashboard and detailed summary report.
- Personnel control function: Facial recognition function cross-check with allowlist and blocklist to send notifications, alerts, real-time snapshots and detailed summary reports.
- Attendance Checking Function: Real-time checking personnel attendance in the designated area. Visual data shows on an intelligent dashboard.
- People counting: Dynamically count the number of people in the area, and alarm when the number of people reaches the set value.
- "Advanced smart target search". The intelligent scene module provides more comprehensive functions and supports the platform event search. The system can generate a detailed individual trajectory report using multi-credential such as age, ID card number, person's name, the reverse image, mask, glasses, jacket color, and trousers color.

Consumption

- When integrates with ZKTeco's consumption machine, offering facial payment and stored value card methods.
- Upon account registration, the system will record a summary of account's remaining value, transaction, and top-up history.
- Supports managing the stored value card limit, setting system passwords, and setting single or double wallet modes.
- Provides card issuance, recharge, refund, subsidy, card refund, card cost, card balance, card refund without card, loss report and cancellation report.
- Provide personal consumption statistics, department summary, restaurant summary, equipment summary, income and expenditure summary, and meal summary reports.

NEW Locker Management

- Contactless facial recognition. Your face is the key. Users no longer need to carry a physical key, card or QRcode to unlock the door.
- Remote advertising placement to drive foot traffic
- Parcels and smart locker events can be track and trace
- Assign cabinets to personnel online.
- Support a cabinet for individual fixed use or multiple sharing.

NEW Intrusion Alarm

- Integrates with the Alarm Control Panels (BOSCH and RISCO) to monitor and control the partitions and points.
- Supports defense zone display on the map.

Software Specifications

Operating System	
Server-Side	Windows 7 Pro/ Ultimate** SP1, Windows 2008 Server R2 (64-bit only), Windows 2012 Server, Windows 2012 Server R2, Windows 2016 Server, Windows 8.1 Pro, Windows 10 Pro/Enterprise or Windows 2019 Server Windows 11
Client-Side	Windows 7 Pro/Ultimate* SP1, Windows 8.1 Pro/Enterprise, Windows 10 Pro/Enterprise or Windows 2019 Server Windows 11
Suggested Browser for Client-Side	IE11 or later, Chrome 33 or later, Safari 6.1.3 or later Edge
Certifications	ISO/IEC 27001:2013, ISO/IEC 27701:2019, ISO9001, ISO20000.
Database Platform	
Maximum Number of ClientsAllowed to Access	Unlimited (depending on the performance of the server & network)
Maximum Supported Admin Users	
Maximum Supported Personnel	300,000
Maximum RFID Cards	300,000
Maximum Passwords	300,000
Maximum Fingerprints	300,000
Maximum Faces	300,000
Maximum Access Controlled Doors	5,000
Maximum Access Control Level	Unlimited (depending on the performance of the server & network)
Maximum Attendance Points	2,000
Maximum Visitors (Monthly)	100,000
Maximum Surveillance Cameras	1024
Maximum Intelligent Video Servers	50
Maximum Controlled Outputs Maximum Inputs	Unlimited (depending on the device's configuration)

3rd-Party Integration	
Notification / Messages	Line / WhatsApp / Amazon SNS/ SMS
GISMap	Google Map / Baidu Map / SuperMap
Microsoft Active Directory	No Version restriction
Intrusion Alarm Integration	Bosch/RISCO
API	Restful API Supports: Person Interface of Attendance Area RESTful API Person Interface RESTful API Person Biometric Template Interface RESTful API Card Interface RESTful API Department Interface RESTful API Area Interface RESTful API Reader Interface RESTful API Media Interface RESTful API Door Interface RESTful API Floor Interface RESTful API Access Control Interface RESTful API Access Control Device Interface RESTful API Access Level RESTful API Access Control Transaction Interface RESTful API Attendance Transaction Interface RESTful API Attendance Device Interface RESTful API Elevator Control Level Interface RESTful API Elevator Device Interface RESTful API Elevator Transaction Interface RESTful API Vehicle Management Authorization Interface RESTful API Vehicle Management Transaction Interface RESTful API Visitor Reservation Interface RESTful API Visitor Level Interface RESTful API Visitor Registration Check Out Interface RESTful API Temperature Transactions Interface RESTful API FaceKiosk Device Interface RESTful API FaceKiosk Area Interface RESTful API
Database Mapping	Supports
Cybersecurity	
Data Protection	256-bit AESencryption

Minimun Server Configurations

Server Quantity	Single Server	Single Server	Multi- Server
Usage	Within 200 Terminals	Within 1000 Terminals	Within 2000 Terminals
Recommended Database	1. PostgreSQL (built-in) 2. SQL Server or Oracle (must be installed by the customer) 3. It's recommended to install the SQL Server or Oracle on remote server		
Server OS	Windows7 / 10 /11 Windows Server 2008 / 2012 / 2016 / 2019		
Screen Resolution	At least 21.5 inches, the best resolution is recommended: 1920*1080		
Ethernet Port	NIC(Network Interface Card) 1000Mbps or Gigabit Ethernet or better		
RAM	8GB DDR4	16GB DDR4	16GB DDR4
CPU	Intel(R) Core(TM) i5 9th Gen series 4 Core processor with speed of 2.7GHz or above	Intel(R) Core(TM) i5 9th Gen series 4 Core processor with speed of 2.7GHz or above	Intel(R) Core(TM) i7 9th Gen series 8 Core processor with speed of 3.7GHz or above
Hard Disk Space	500GB/1TBfree space or larger (NTFSrecommended)		
Graphics Card (Optional)	Intel Integrated Graphics with above 2GBmemory (e.g., Intel®HD Graphics 520) or Discrete Graphics Card at least 1GB memory (e.g., GeForce GTX 550 Ti)		

* The system configration suggestionswere based on the general application scenarios. To know more about the server configuration of specific projects, please contact the Technical Support team or the ZKBioSecurity Product Center.

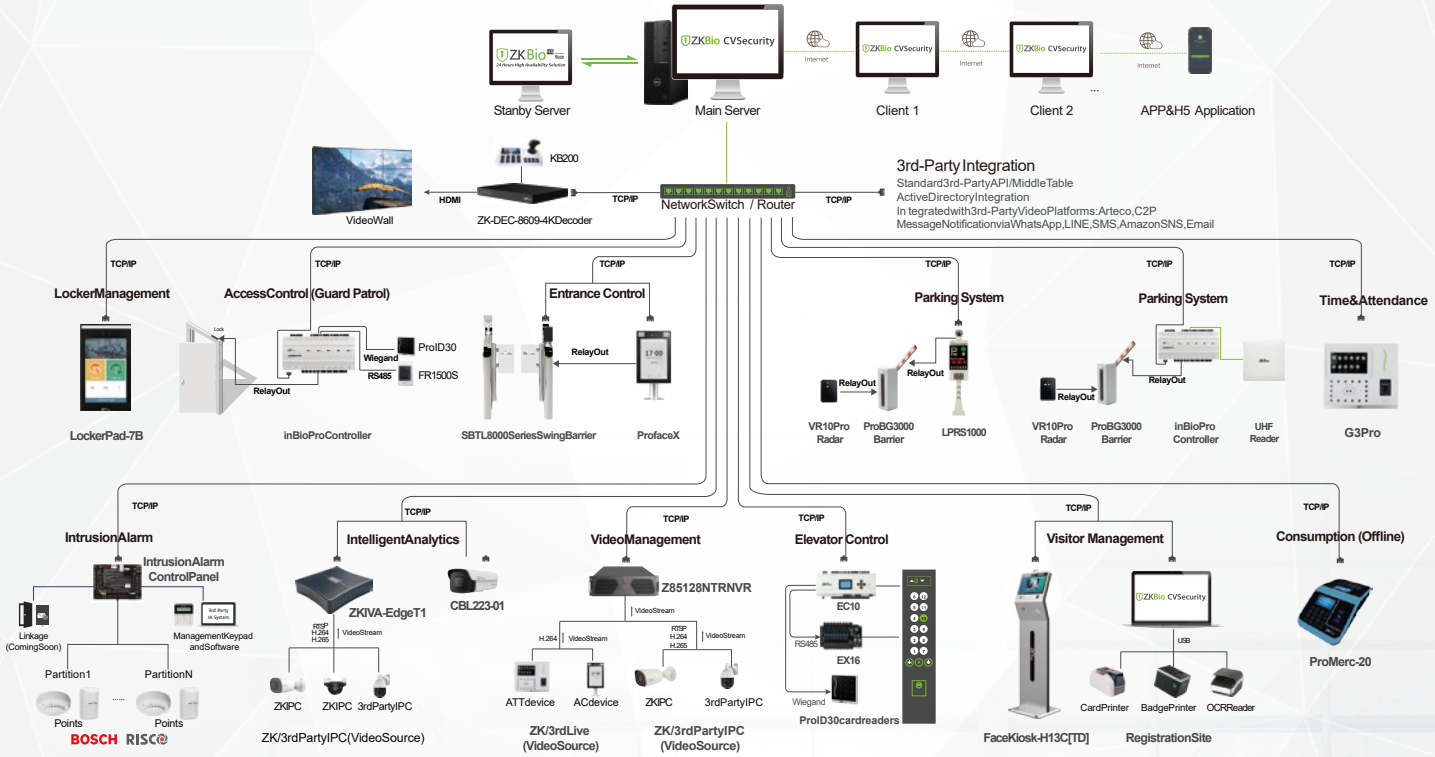
Business Server Recommendations

Server	CPU	RAM	Hard Disk Storage
Dell PowerEdge Series (R330/R430/ R530/R630)	Xeon E3/ E5/ E7	8/16 GB DDR4	500GB/ 1TB
HP ProLiant DL Series (DL160/DL180/ DL360/DL388)	Xeon E3/ E5/ E7	8/16 GB DDR4	500GB/ 1TB

Video Live Viewing Workstation Recommendations

CPU	RAM	Graphics Card	GPU	Screen Resolution	Server OS	Network card
Intel(R) Core(TM) i7 9th Gen series 8 Core processor with speed of 3.7GHz or above	16GB DDR4 and above	GTX16 series or above	NVIDIA	1920*1080 or above	Windows10 (64Bit) or above	Gigabit

System Topology



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