

ZKBio CVSecurity

Version 6.3.0_R

All-in-One Biometric Security Advanced Solutions



ZKBio CVSecurity is a web-based security platform that combines biometric and computer vision technologies. It includes various modules such as : Personnel, Time & Attendance, Access Control, Visitor Management, Parking, Elevator Control, FaceKiosk, Consumption, Video Surveillance, Intrusion Alarm, Locker Management, Video Intercom, Service Center and more. The platform features a micro-service architecture for high performance, security, and scalability.

- Comprehensive security platform with biometric and computer vision
- Multiple modules for different security needs
- Micro-service architecture for robust performance and scalability
- Integration of video surveillance and smart analysis for real-time monitoring
- Early warning system and prompt response capabilities
- ISO certifications for information security and data protection(ISO/IEC 27001:2013, ISO/IEC 27701:2019 & ISO9001)
- High-standard after-sales service with ISO20000

Features

| | | | |
|--------------------------------|--|---|--|
| Web Application | Multit-point Deployment | Flexible 3rd-Party System Integration | High Availability ZKBio HA Integration |
| Visual Data Panel | Scramble(Dynamic) QR Code Credential | Elevator Destination Control System Integration | Visible Light Facial Recognition |
| Video Patrol | Global Anti-Passback and Linkage | Entrance Terminal Management | LPR Camera for Parking |
| Flexible Elevator Control | Smooth and Advanced Visitor Management | Self-Service Visitor Management | WhatsApp, LINE, SMS, Amazon SNS Notification |
| 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 & Offline) |

Features of Main Modules

| Module | Features |
|--------------------|--|
| Access Control | <ul style="list-style-type: none"> • Access Level: Precisely manage personnel entry and exit to enhance the security of the campus. • Access Records: Detailed logging of each visit's time, location, and visitor information for easy reporting and analysis. • Video Linkage: Integrated with video surveillance systems for real-time monitoring and event recording. • Emergency Evacuation: Quick evacuation guidance in emergencies to improve rescue efficiency. • Advanced Features: Support for global anti-tailgating, interlocking, and linkage to meet complex security management needs. |
| Time & Attendance | <ul style="list-style-type: none"> • Flexible Attendance Rules: Different scheduling rules can be set for different departments and employee categories. • Accurate Calculation: Precisely track regular work hours, overtime, tardiness, and absences to ensure accurate payroll processing. • Comprehensive Tracking: Manage make-up cards, leave requests, approval workflows, and monitor sick leaves and personal leaves. • Regulated Overtime Management: Systemize overtime and compensatory time arrangements to ensure compliance and minimize disputes. • Seamless Integration: Offer extensive APIs for seamless integration with payroll systems. • Employee Self-Service: Enable employees to view personal attendance records and apply for leaves independently. • Insightful Reporting: Provide detailed attendance reports to help management identify trends and potential issues. |
| Visitor Management | <ul style="list-style-type: none"> • Suitable for All Scenarios: We offer a variety of visitor check-in and check-out solutions to meet the needs of different occasions. • Efficient Reception: Utilizing OCR and ID card readers for swift identity verification and information scanning, with automatic receipt printing post-registration for a seamless process. • Self-Service Kiosks: Integrating advanced facial recognition, we enable self-check-in for visitors, instantly issuing receipts, enhancing experience, and reducing front desk workload. • Online Scheduling and Access: Via our app, you can invite and pre-register visitors. They gain automatic access during the scheduled time, streamlining the visit process. • Watchlist Management: Our system intelligently identifies and flags visitors of various categories, alerting staff with VIP notifications for enhanced etiquette. • Comprehensive Notification Service: The system provides timely alerts for all stages, including bookings, approvals, check-ins, check-outs, no-shows, and overtime check-outs, through various channels like Email, WhatsApp, and SMS. |
| Parking Management | <ul style="list-style-type: none"> • Automated Management: Swift response to vehicle entry and exit with automated barrier systems for improved traffic efficiency. • Diverse Payment Options: Supports various payment methods for different user categories, including temporary, regular, special, and monthly renters, catering to diverse management needs. • Stringent Fee Collection: Computerized billing and charging record every transaction, preventing revenue leakage and ensuring parking lot profitability. • Centralized Control: Real-time transmission of parking equipment status and space usage to the control center via the network, enhancing supervision. • High Plate Recognition Rate: High-definition cameras boast a plate recognition rate above 99%, adaptable to complex environments. |
| Elevator Control | <ul style="list-style-type: none"> • Enhanced Security: Fine-grained access control ensures only authorized users access designated floors, effectively preventing unauthorized entry and enhancing building security. • Floor Control Capability: Our elevator access controllers are powerful, capable of managing up to 128 floors, meeting the vertical transportation needs of high-rise buildings. • Efficient Dispatch System: Integrated with DCS, it works in tandem with elevator systems like Mitsubishi and Kone, enabling intelligent destination dispatch to reduce wait times and improve transportation efficiency. • Personalized Services: Custom services cater to passenger habits and needs, offering exclusive elevator services such as VIP direct floors and management-specific elevators for special groups. |

| Module | Features |
|--------------------------|---|
| Entrance Control | <ul style="list-style-type: none"> • Enhanced Security: Identity verification through facial, fingerprint, palm, card, and other recognition methods ensures that only authorized personnel can access specific areas. • Crowd Management: Effectively control and monitor the flow of people to prevent overcrowding, enhancing order and security in the area. • Data Recording: The system records detailed information of each passage, including time and identity of personnel, facilitating post-incident audits and data analysis. • Emergency Response: In emergency situations, such as fires or security incidents, the access gates can be quickly opened to ensure rapid evacuation of personnel. |
| Video Intercom | <ul style="list-style-type: none"> • Enhanced Security: Video identity verification ensures that only authorized visitors enter, enhancing the security of residential and workplace environments. • Two-Way Communication: Intercom units, indoor monitors, phones, mobile apps, and PC clients can call each other, enabling two-way communication capabilities. • Simplified Configuration: The software automatically assigns SIP accounts, quickly synchronizing them with devices and apps, eliminating the hassle of manual configuration. • Access Control Integration: In emergency situations, the system automatically dials designated apps to ensure that no critical alerts are missed. |
| Smart Video Surveillance | <ul style="list-style-type: none"> • Expanded Capacity: Capable of handling up to 1024 video channels, with support for 64-channel prereview and 16-channel simultaneous real-time playback. • Essential Video Management: Offers fundamental functionalities including real-time preview, PTZ (Pan-Tilt-Zoom) control, video playback, and video decoding. • Intelligent Alert Management: Allows for viewing and addressing intelligent camera alerts such as intrusion and rapid movement directly from the software's alarm center. • Enhanced Surveillance: Video patrol features bolster security personnel's situational awareness and patrol effectiveness, with the software maintaining comprehensive patrol records. • Watermark Protection: Incorporates a watermark function to safeguard user photos and data, preventing unauthorized copying and reuse. |
| Guard Patrol | <ul style="list-style-type: none"> • Standardized Management: Streamline patrol processes to ensure tasks are carried out according to established plans and frequencies. • Real-time Monitoring: Continuously monitor the status of patrol personnel to promptly detect and respond to any anomalies. • Flexible Scheduling: Adjust patrol routes and schedules as needed to accommodate varying security requirements. • Cost Reduction: No need to purchase additional patrol equipment; access control devices also serve as patrol points, and patrols can be completed using facial recognition, fingerprint scanning, or card swiping. |
| Consumption | <ul style="list-style-type: none"> • Fast Checkout: Supports facial recognition or card payments, which is convenient and fast, reducing waiting time in lines. • Account Management: Facilitates personal account management, including recharges, balance inquiries, and transaction history reviews. • Subsidy Distribution: Simplifies the process of issuing and managing meal subsidies for employees or students. • Data Tracking: Provides comprehensive consumption statistics reports, assisting cafeteria managers in analyzing consumption patterns and trends. |
| Intrusion Alarm | <ul style="list-style-type: none"> • Seamless Integration: Harmoniously integrates with Alarm Control Panels from leading brands like BOSCH and RISCO, enabling comprehensive monitoring and control over various partitions and points within the security system. • Enhanced Visualization: Offers an intuitive defense zone display on the map, providing a clear visual overview of security zones for enhanced situational awareness and efficient response to any incidents. |
| Locker Management | <ul style="list-style-type: none"> • Automated Management: Automatically assigns and releases lockers to designated personnel. • Real-time Monitoring: The system can monitor the usage status of lockers in real time to ensure the rational allocation of resources. • Data Recording: The system automatically records data on the use of lockers, facilitating management and tracking. • Advertising Opportunities: The system interface can display advertisements, providing an additional revenue stream for operators. • Emergency Access: In emergency situations, management personnel can quickly access lockers. |

Software Specifications

| Operating System | | 3rd-Party Integration | |
|---|---|---|--|
| Server-Side | Windows 7/8/10/11, Windows Server 2008/2012/2016/2019/2022 | Notification / Messages | Line / WhatsApp / Amazon SNS / SMS |
| | | GIS Map | Google Map / Baidu Map / SuperMap |
| | | Microsoft Active Directory | No Version restriction |
| | | Intrusion Alarm Integration | Bosch/RISCO |
| Database | PostgreSQL, SQL Server 2008/2012/2014/2016/2017/2019/2022 | 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 |
| Suggested Browser for Client-Side | IE 11 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 Clients Allowed to Access | Unlimited (depending on the performance of the server & network) | | |
| Maximum Supported Admin Users | 300,000 | | |
| 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 | Elevator Destination Control System Integration | KONE, MITSUBISHI ELECTRIC |
| Maximum Controlled Outputs | Unlimited (depending on the device's configuration) | Cybersecurity | |
| Maximum Inputs | | Data Protection | 256-bit AES encryption |

System Requirement

| | |
|----------------------|--|
| Operation System | Microsoft® Windows 7 Microsoft® Windows 8 Microsoft® Windows 10 Microsoft® Windows 11 Microsoft® Windows Server 2008 Microsoft® Windows Server 2012 Microsoft® Windows Server 2016 Microsoft® Windows Server 2019 Microsoft® Windows Server 2022 |
| Browser Version | Google Chrome® 84 and above Firefox® 84 and above Safari® 11 and above Microsoft® Edge 89 and above Internet Explorer® 11 and above |
| Database | PostgreSQL, Oracle 11g/12c/18c/19c/21c, SQL Server |
| OS for Mobile Client | iOS 10.0 and above Android 7.0 and above |

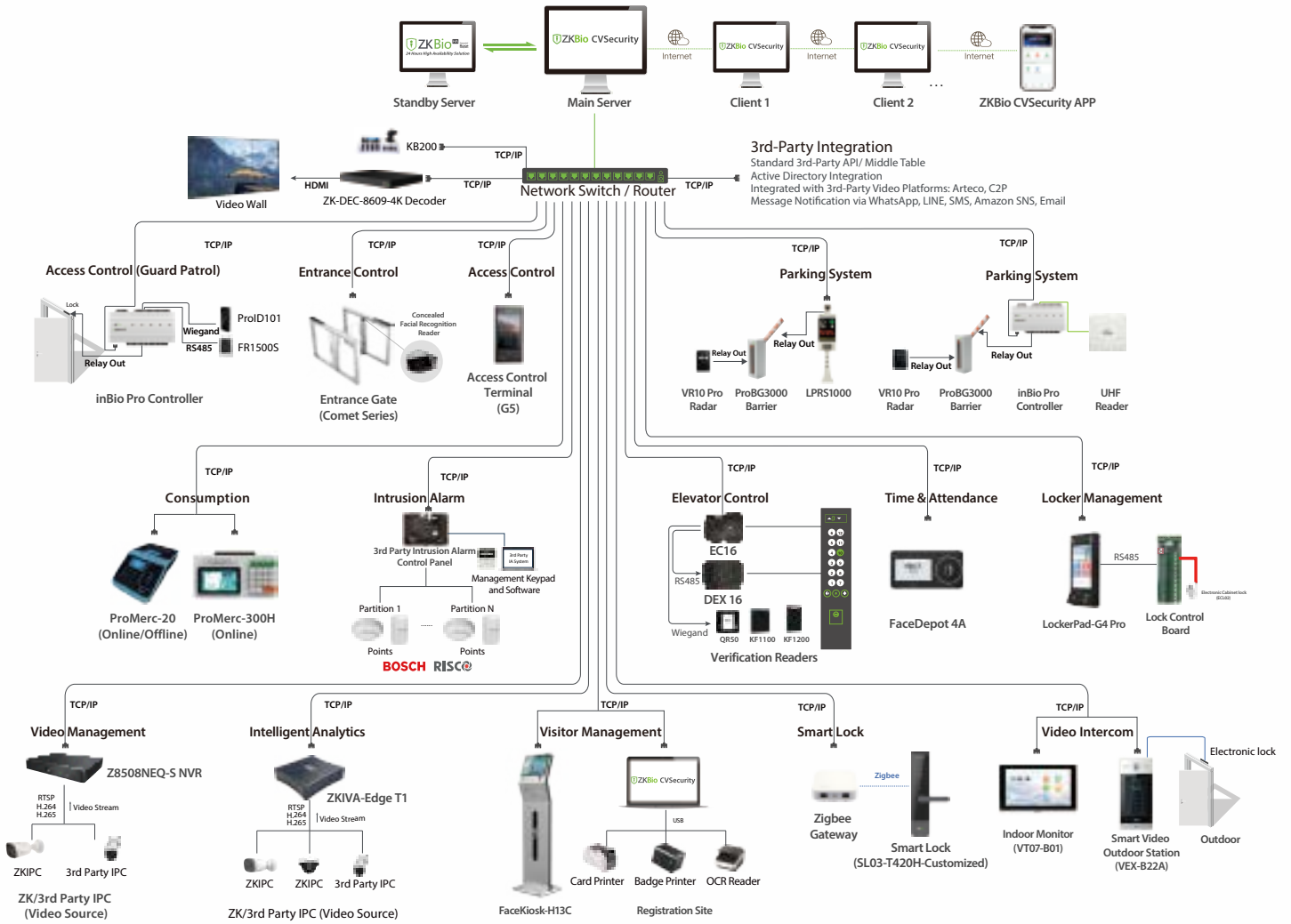
* For high stability and good performance, the following system requirements must be met.

Server Configuration

| | Device Protocol | Device Quantity | Deployment Method Description | Recommended Server Configuration | | | | |
|-------------------------------|--------------------|--|---|--|--------|---|---------------------|---|
| | | | | Server Type | Memory | CPU | Hard Drive Capacity | GPU |
| Small-scale Project | Push / Pull / Best | Push Device: 50 pcs Pull Device: 20 pcs Video Channel: 64 Camearas | If MSSQL or Oracle database is used, an additional separate database server needs to be deployed. | ZKBio CVSecurity Server | 8GB | Core i5 quad-core with a clock speed of 2.8 GHz or higher | 100GB | / |
| | | | | ZKBio CVSecurity Client (Supports simultaneous preview of 64 videos) | 16GB | Core i7 quad-core with a clock speed of 3.0 GHz or higher | 100GB | NVIDIA GTX750 (Only preview video devices are needed) |
| | | | | Database Server (Only required when using MSSQL and Oracle) | 8GB | Core i5 quad-core with a clock speed of 2.8 GHz or higher | 100GB | / |
| Media-scale project | Push / Pull / Best | Push Device: 50~200 pcs Pull Device: 50 pcs Video Channel: 128 Camearas | 1. When the number of devices exceeds 100, it is not recommended to use MSSQL 2. If using MS SQL or Oracle databases, an additional separate database server needs to be deployed. | ZKBio CVSecurity Server | 16GB | Core i5 hexa-core with a clock speed of 3.0 GHz or higher | 200GB (SSD) | / |
| | | | | ZKBio CVSecurity V6600 Client (Supports simultaneous preview of 64 videos) | 16GB | Core i7 quad-core with a clock speed of 3.0 GHz or higher | 100GB | NVIDIA GTX750 (Only preview video devices are needed) |
| | | | | Database Server (only required when using MSSQL and Oracle) | 8GB | Core i5 hexa-core with a clock speed of 3.0 GHz or higher | 200GB (SSD) | / |
| Medium to large-scale project | Push / Pull / Best | Push Device: 200~600 pcs Pull Device: 50 pcs Video Channel: 256 | 1. MSSQL is not recommended. 2. If using an Oracle database, an additional separate database server is required. | ZKBio CVSecurity Server | 16GB | Core i7 octa-core with a clock speed of 3.2 GHz or higher | 500GB (SSD) | / |
| | | | | ZKBio CVSecurity Client (Supports simultaneous preview of 64 videos) | 16GB | Core i7 quad-core with a clock speed of 3.0 GHz or higher | 100GB | NVIDIA GTX750 (Only preview video devices are needed) |
| | | | | Database Server (Only required when using Oracle) | 16GB | Core i5 hexa-core with a clock speed of 3.2 GHz or higher | 500GB (SSD) | / |

* To ensure optimal system performance, should you plan to connect more than 600 devices, we recommend that you contact our Technical Support Center. Our professional team will provide you with customized server configuration recommendations to ensure smooth and efficient operation of your devices.

System Topology



Introduction guide of ZKBioCV Security

