Release Notes

ZKBio CVSecurity

Date: November 2024

Doc Version: 1.4

English

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If there is any issue related to the product, please contact us.

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To know more about our global branches, visit www.zkteco.com.

About the Company

ZKTeco is one of the world's largest manufacturers of RFID and Biometric (Fingerprint, Facial, and Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

About the Manual

This manual introduces the **Release Notes for ZKBio CVSecurity**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Document Conventions

Conventions used in this manual are listed below:

GUI Conventions

For Software	
Convention	**Description**
Bold font	Used to identify software interface names e.g., **OK**, **Confirm**, **Cancel**.
>	Multi-level menus are separated by these brackets. For example, File > Create > Folder.
For Device	
Convention	**Description**
< >	Button or key names for devices. For example, press <OK>.
[ ]	Window names, menu items, data table, and field names are inside square brackets. For example, pop up the [New User] window.
/	Multi-level menus are separated by forwarding slashes. For example, [File/Create/Folder].

Symbols

Convention	Description
	This represents a note that needs to pay more attention to.
	The general information which helps in performing the operations faster.
	The information which is significant.
	Care taken to avoid danger or mistakes.
	The statement or event that warns of something or that serves as a cautionary example.

TABLE OF CONTENTS

1   Statement

1.   ZKBio CVSecurity offers three updates: Major Updates, Minor Updates, and Patch.

- **Major Updates:** Major updates include significant updates in modules or functionalities of the Software and are recommended to all users.

- **Minor Updates:** Minor updates include improvements in a few functionalities of the Software.

- **Patch:** The bugs are fixed in the Patch version.

2.   Version Number Description:

2   Precautions When Upgrading ZKBio CVSecurity

1.   ZKBio Security V5000 3.0.0_R (except Video and VMS modules) can be upgraded to ZKBio CVSecurity.

2.   ZKBio Security 3.2.0.0 cannot be upgraded directly to ZKBio CVSecurity.

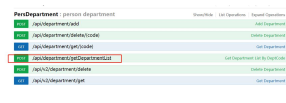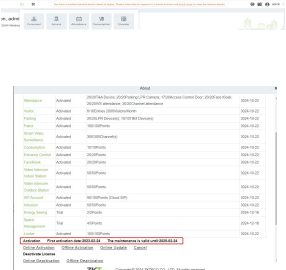| Current Version	Upgrade Path	Upgrade Method
ZKBioSecurity 3.2.0.0_R	ZKBioSecurity V5000 4.1.R > ZKBio CVSecurity 6.0.0_R	1. Using ZKBioSecurity V5000 4.1.x_R migration data function to upgrade from 3200 to V5000 4.1.x_R.
ZKBioSecurity V5000 2.0.x_R		2. Then overwrite installation with ZKBio CVSecurity 5.3.0_R
ZKBioSecurity V5000 3.0.x_R	ZKBio CVSecurity 6.4.0_R	Using overwrite installation method with ZKBio CVSecurity 6.4.0_R. (Note: With the Intelligent Analytics module removed in V6.3.0, devices from previous versions will require re-adding to the Smart Video Surveillance module after upgrade. This one-time action ensures continued access to advanced video analytics capabilities.)
ZKBioSecurity V5000 4.0.x_R		
ZKBioSecurity V5000 4.1.x_R		
ZKBio CVSecurity 5.0.0_R		
ZKBio CVSecurity 5.1.1_R		
ZKBio CVSecurity 5.2.0_R		
ZKBio CVSecurity 5.3.0_R		
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ZKBio CVSecurity 6.1.x_R		
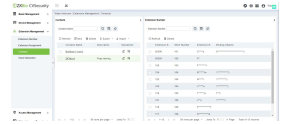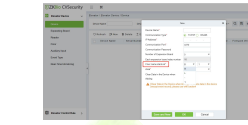
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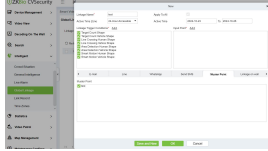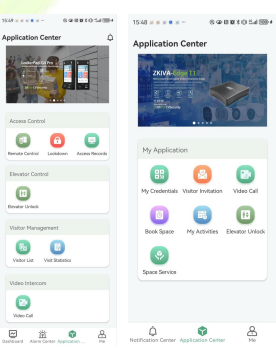
Release Date: 2024/11/30   **Update Type:** Major Updates

New Features and Improvements

No	Update Module	Key Update	Figure
1	Space Management	New module implementation with the following features: **1. Mobile Booking System:** added compatability for Facekiosk H10A devices for mobile booking system: real-time space occupancy monitoring, detailed space information display (capacity, dimensions, available facilities) and instant booking confirmation. **2. Automated Notifications:** email and mobile app notifications for booking confirmations. And meeting reminders and updates. **3.Comprehensive Reporting System:** space utilization analytics, booking history and trends and custom report generation.	
2	Energy Saving	**1. Device Management:** IoT gateway integration and offers terminal device monitoring and control. **2. Scene Management:** supports attribute to scene linkage and cross-module integration, for instance, binding with space management. **3. Verification Records:** attendance records can be generated from time & attendance devices, access control terminals, license plate recognition (LPR) devices and facial authentication via IPC. All verification records are instantly displayed on the monitoring dashboard.	
3	Service Center	1. **Scenario Centre:** a new "Real-time Attendance"application,employs the use of an IP camera for real-time attendance monitoring. The IP camera captures a face template, and integrates with ZKBio CVSecurity to facilitates the real-time attendance function. 2. **Event Center Renovation:** Users can query and export all activity records for an individual in access control, attendance, parking, and consumption using their personnel ID or name. 3. **Event Center - Event Types:** Incorporate SOP issues handling.	
4	Visitor	**1. Self-Registration System:** a cloud-based visitor registration system. Visitor can pre-register remotely. **2. Enhanced Security:** protect visitor data by end-to-end encryption and protect the local server address.	

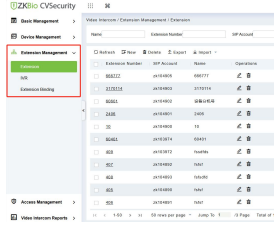| 5	Video Intercom	1. Introduced contact list feature and with personnel assignment capabilities. 2. Included an operation guide for SIP video intercom functionality.	
6	Time & Attendance	1. **Global attendance rule configuration**: Newly added support for overtime levels. 2. Attendance reports now support the statistics of overtime levels.	
7	Elevator Control	Included basement floors (B/L) in the elevator control panel EC10 and EC16.	
8	Platform	1. Added operation video link 2. Privacy protection is configured according to roles, implementing different privacy protection policies for different users and roles. 3. Precise search support now available.	
9	API	1. The API has added the **getDepartmentList** feature. 2. The API has added an **Advanced Access** interface to implement **getWhoIsInsideZoneList** and **getWhoIsInsideByZone**. 3. Introduced the new API for parking module.	
10	Parking	1. **Two-factor authentication:** one LPR device being able to bind with multiple access control devices. 2. Supports for self-developed LCD screen devices. 3. Added support for LPRC500 devices. 4. Added hourly discount options.	/
11	Active Directory	AD has added multiple OU dynamic rules to retrieve corresponding data, and increased field settings to filter and obtain personnel information.	/
12	License	1. Added system maintenance schedule display. 2. License expiration email alerts for administrator	

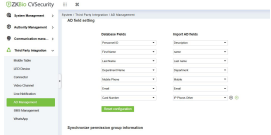| 13	Smart Video Surveillance	1. **Global Linkage**: After intelligent video alerts, support for triggering the activation of Muster Point.
		2. **Video Playback and Backup**: Added a feature for video playback and historical alarm video backup, including progress indicators for downloads.
		3. **Channel Preview Management**:
		  a. Customize preview window positions by drag-and-drop.
		  b. Rearrange display layout without affecting device channel order.
		  c. Access via Video > Video Management > Preview
		  d. Flexible visualization while maintaining original channel configuration.
		4. **ZKIVA-Edge X1 Integration:** Full management capability and alarm monitoring. With enhanced alarm linkage.	

14	Mobile APP	1. The Personnel page has added applications for Book Space, My Activities, and Space Service. 2. The Administrator page has added the Personnel Registration application. 3. The Personnel APP supports modification of user photos. 4. The Notification Center has been revamped to support notifications, visitor dynamics, personal verification records, and system messages.	
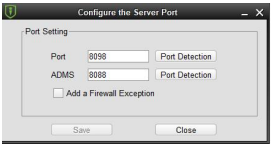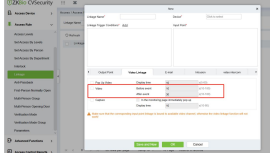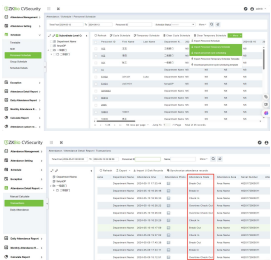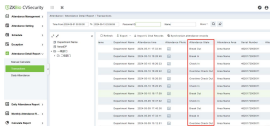
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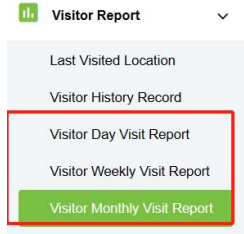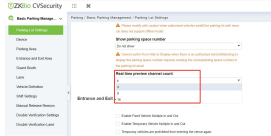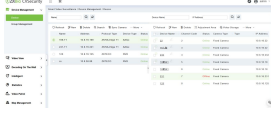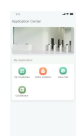
Release Date: 2024/06/30   **Update Type:** Major Updates

New Features and Improvements

No	Update Module	Key Update	Figure
1	Video Intercom Module	Video Intercom Module: Unlock New Capabilities with SIP Protocol Integration: 1) Supports PBX Server or cloud SIP mode. 2) Supports extension number and SIP account management. 3) Supports assigning SIP accounts to personnel, devices, and system users. 4) Supports voice interaction configuration. 5) Supports access control alarm linkage to call designated personnel.	

2	Active Directory	1) After enabling/ disabling personnel in Active Directory (AD), the changes will be synchronized to ZKBio CVSecurity. 2) After deleting personnel in Active Directory (AD), the corresponding personnel will be synchronized and deleted from ZKBio CVSecurity.	
3	System	The "system tray" adds functionality for modifying software access ports and ADMS communication ports.	
4	Mobile Credentials	Integrate with ACMS to add, delete, and synchronize virtual card data on the ACMS platform.	
5	Access Control	1) Video Linkage supports configuring the video recording duration before and after the event trigger. 2) Supports access control event linkage for video intercom to call designated numbers 3) Supports ZKBio CV460 access control + video surveillance all-in-one controller. 4) Support for InBio Pro Plus+ KF1000 Plus: support for collecting and synchronizing face templates for KF1000 Plus; support for event logging and reporting, as well as alarm events for readers online/offline and dismantled; software support for KF1000 readers' firmware upgrades.	
6	Time & Attendance Module	1) Added ability to import personnel cycle scheduling. 2) Attendance report supports attendance status display.	
7	DCS Integration	Integration New/Optimized Requirements for Mitsubishi Electric ELSGW/OBU Gateway: 1) When selecting ELSGW/OBU, the standard service port is fixed and limited to 52,000; other ports are invalid. 2) Added fields for "Floor Count" and "Floor name starts at" with adjustments allowing for a maximum of 12 elevators in the elevator group. 3) When the service name "ELSGW" is selected,	

		the "ALL BANK" option in the elevator group can be removed because ELSGW does not support allocation across multiple banks. 4) When the service name "ELSGW" is selected, the "ALL BANK" option in the elevator group can be removed because ELSGW does not support allocation across multiple banks.	
8	Visitor	Report Optimization: Add daily visit report, weekly visit report, and monthly visit report to facilitate visitor traffic statistics.	
9	Intelligent Analytic	1) Remove the Intelligent Analytic module. 2) Migrate ZKIVA-Edge device management to the Smart Video Surveillance module. 3) Migrate Scene Center to Service Center.	
10	Service Center	Addition of Scene Center: Offers smoother operational configuration, advanced monitoring dashboards, and a more sleek and visually appealing page design.	
11		In the Map Center, add quick buttons for locking and unlocking door icons.	
12	Parking	Real-time monitoring supports 4/8/16 channel preview.	
13	Smart Video Surveillance	1) New design for the management interface, combined camera and device management interface. 2) Support for ZKIVA-Edge T1/T2 management. 3) New CCTV client UI design with additional features. 4) Decoding on the wall supports video rotational patrol. 5) E-map PTZ camera control.	
14	APP	Add applications for video intercom and remote elevator calling.	

5   Version 6.1.3

Release Date: 2024/06/17   **Update Type:** Patch
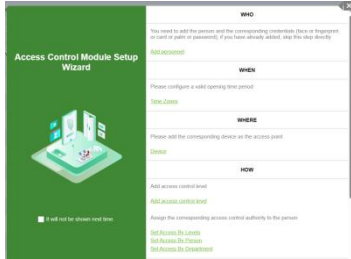
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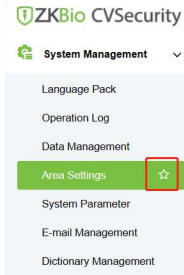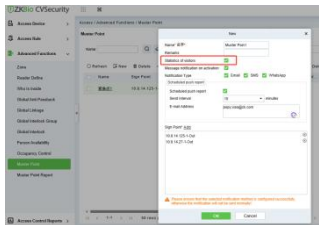
1. Fixed Arbitrary File Upload Path Deletion Issue Post-Login: Resolved a vulnerability where unauthorized deletion of file paths could occur after logging in, which could lead to directory traversal.

2. Fixed Unauthorized Hierarchical Resource Access Post-Login: Addressed an issue that allowed users to access resource information across directory levels based on the resource path name after logging in.

3. Fixed Form Export Vulnerability Post-Login: Rectified a security flaw where the password field in the export form was removable, enabling unauthorized export of data without a password.

4. Strengthened Cross-Site Illegal Character Interception: Enhanced security measures to better intercept and block illegal characters in cross-site interactions to mitigate the risk of injection attacks.

5. Fixed Unauthorized System Administrator Creation Post-Login: Corrected a privilege escalation vulnerability that allowed users to create system administrator accounts without proper authorization after logging in.
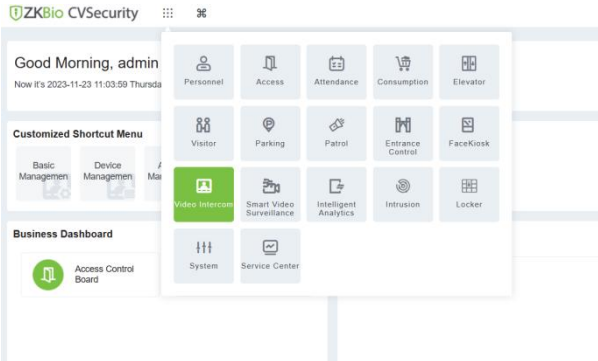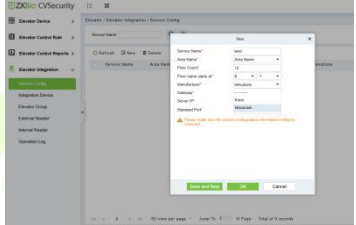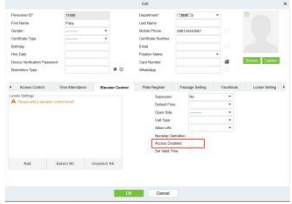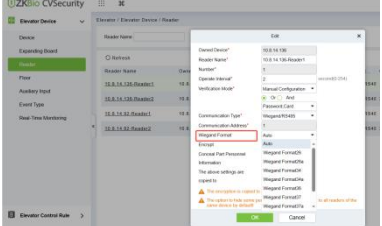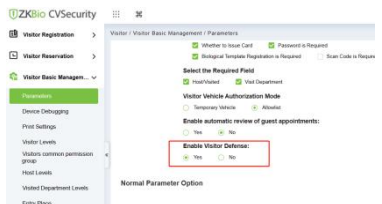
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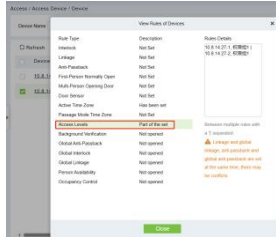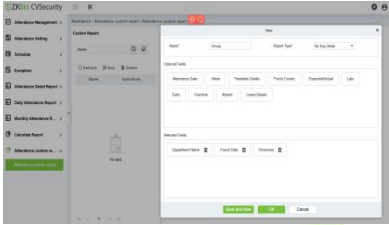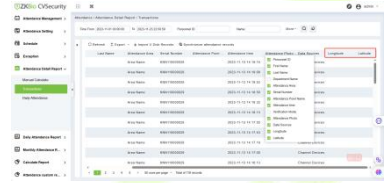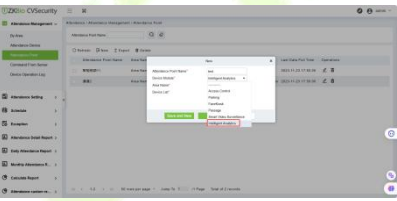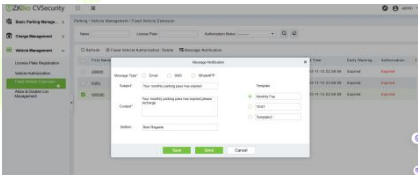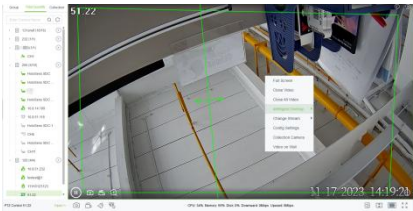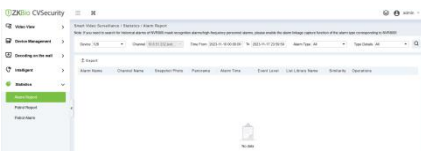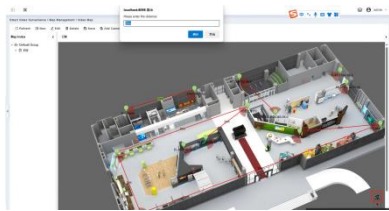
Release Date: 2024/01/03   **Update Type**: Major Updates
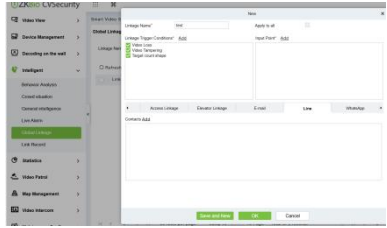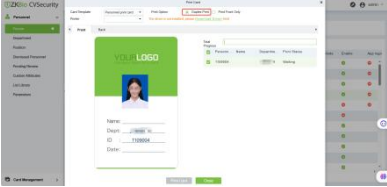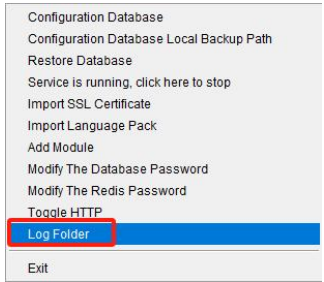
New Features and Improvements

NO.	Module	Update Description	Pictures
1	Setup Wizard	Wizards for common modules: Access Control, Parking, Visitor modules	
2	System	Menu favorites function; after favorites will go directly to the page	
3	Muster Point	New support for counting the number of visitors	

4	Video Intercom	Add visual intercom module: Equipment management: add equipment, bind the unit corresponding to the equipment. Resident management: add residents, personnel and unit binding, personnel rights issued to the door machine. Open Door Record Reporting: Open Door Record Reporting of Door Opening Machine, and at the same time carry which unit opened the door remotely.	
5	Elevator DCS Control	DCS Integration with Mitsubishi/KONE: Realization of DOP+COP Application	
6	Elevator Control	Add Access Disabled function (EC16 and DCS support)	
7		Elevator Control-Reader supports optional downlink wiegand format	
8	Visitor	Add "Accompanying Person" and "Remark" fields in visitor registration H5 page.	
9		Visitor defense function: when enabled, the visitor will be added to the allowed list of the video.	

10	Access Control	Add the field of "access control authority group" to view device access control rules.	
11		Attendance customization report support	
12	Time & Attendance	Transaction supports displaying latitude and longitude (supported by Horus H1).	
13		Attendance point supports selecting intelligent scene cameras for video attendance.	
14	Parking	Fixed car advent support message linkage function	
15		The video preview window supports intelligent function overlay and displays the delineation window	
16	Smart Video Surveillance	Add "All Alarms" to the triggered alarm types in the alarm log, so that users can query all types of alarm logs at once.	
17		The electronic map of video module increases the distance of monitoring points.	

18		1. Unify the entrance of Email linkage notification. The entrance is put into Global Linkage. 2. Global Linkage, new support for Whatsapp, line, email.	
19		Single and double-sided printing is available for card production.	
20	Personnel	Disable function optimization: When the personnel menu disable the personnel, the corresponding access control, ladder control, channel, Locker, consumption and other modules of the personnel permissions will be invalidated;	
21		Biophoto added photo quality guide, size, dimensions, white background, or use case (ID photo format), etc.	
22	System	Database backup - new function to backup photos	
23		Console support for one-click export of software logs	
24	Map Center	New devices that support smart scenes and show alerts for smart scenes	
25	ZKBio CVSecurity APP	1. Hybrid cloud connection 2. APP function operation	

7 Version 6.0.2

Release Date: 2023/11/14   **Update Type:** Patch

Bug Fixed

1. Fixed the PULL Devices incorrect online/offline status.
2. Fixed the software hang sometimes issue when sync data to PULL Device.
3. Fixed the issue that the video map management menu not show when upgrade from old version.

8 Version 6.0.1

Release Date: 2023/08/15   **Update Type:** Patch

New Features and Improvements

1. Newly add options of manual patrol or auto patrol of Video Patrol function.
2. Allow user batch modify the duration of each cameras of video patrol plan.
3. Newly add photo quality guidance when user uploading BioPhotos.

Bug Fixed

1. Fixed the issue of upgrading the attendance device's firmware with return error return value -3.
2. Fixed the issue of batch sync personnel to PULL device but only one personnel get synced.
3. Fixed the issue that the Global Linkage menu was disappear of Intelligent Analytic Module after upgrade from old ZKBio CVSecurity version to newest.

9 Version 6.0.0

Release Date: 2023/06/30   **Update Type**: Major Updates

New Features and Improvements

No.	Module	Function	Update Content Description
1	Personnel	BioPhoto	Newly added support for uploading BioPhoto, separated from User Photo.
2			Supports batch import of Biophoto.
3			Supports viewing of Biophoto.
4	Elevator Control	DCS Application	Integration with KONE for DCS application.
5	Parking	Added field for parking time	Real-time monitoring, reports, and API now support parking time field.
6		TBM Ticket Dispenser License Control	Ticket dispenser license control is separate from LPR.
7		Car ID + TBM Ticket	Car ID and TBM ticket dispenser can be used simultaneously.

		Dispenser		
8	Access Control	Real-time monitoring supports live preview of doors	Supports preview before remote door control.	
9			Supports live preview of doors when clicking on the door icon in the map center.	
10	Time& Attendance	Added support for more attendance report types	Added support more types of attendance reports, a total of 19 types of reports.	
11	System	Language self-translation and import	1. Provide translation platform for users to translate languages by themselves. 2. Support self-service import of translated language packages in the console.	
12		Supports Two-Factor Authorization login	Supports two-factor authentication login to enhance login security..	
13		Multi-server	Supports synchronization of personnel data between multiple servers.	
14	Global Message Notification	Optimized inter-module message linkage	System Management	Supports configuring global message linkage in system modules.
15			Access Control Module	Supports real-time sending of personal access records to the person who generated them (via SMS, Email, WhatsApp).
16				Supports sending notification messages to designated personnel after linkage trigger (SMS, Email, WhatsApp, Line).
17				Muster Point: when an emergency occurs and the Muster Point is activated, a notification of "Emergency Assembly" is sent to all employees in the department (via SMS, Email, WhatsApp).
18				Muter Point: supports sending statistical reports on emergency assembly on a regular basis to designated personnel (via Email).
19				Regularly sends daily or all access event reports to designated personnel (via Email)
20				Sends messages to designated personnel when an access event occurs (via Email, SMS)

21			Time & Attendance Module	Supports sending personal attendance records to the corresponding individuals (via SMS, Email, WhatsApp).
22				Regularly sends attendance reports to designated personnel (via Email).
23			Elevator Control	Supports sending notification messages to designated personnel after linkage trigger (SMS, Email, WhatsApp, Line).
24			Entrance Control	Supports sending personal access records to corresponding individuals (via SMS, Email, WhatsApp).
25				Supports sending notification messages to designated personnel after linkage trigger (via Email).
26			Locker Management	Supports sending personal access records to corresponding individuals (via SMS, Email, WhatsApp).
27				Supports sending notification messages to designated personnel after linkage trigger (via SMS, Email, WhatsApp, Line).
28			Video Surveillance	Supports reminding patrol personnel before the start of video patrol tasks (via Email)
29				Supports sending notification messages to designated personnel after linkage trigger (via SMS)
30			Intelligent Analytics	Supports sending notification messages to designated personnel after linkage trigger for intelligent analysis (via SMS, Email, WhatsApp)
31			Intrusion Alarm	Supports sending notification messages to designated personnel after alarm linkage trigger (SMS, WhatsApp, Email, Line).
32			Visitor	Supports sending messages to

				designated personnel after alarm linkage trigger (SMS, WhatsApp, Email, Line).
33		User Permission Management		Supports sending notification messages to designated personnel after linkage trigger for visitor booking, booking timeout, registration, check in, check out, late check out, watchlist, etc. (via SMS, Email, WhatsApp).
34				Newly added permission management for video preview, PTZ control, snapshot, playback, partial expansion, and voice intercom.
35				Newly added permission management for video playback, video download, snapshot, partial expansion.
36				Fine-grained management of main NVR functions and IPC camera functions is added
37		Menu Adjustment		All page permissions are fine-grained to the third-level sub-function management (such as the add, refresh, and edit buttons in a page)
38				Accompanied by menu page adjustment of ZK NVR main device to ensure consistency with ZK NVR configuration
39	Smart Video Surveillance	Device Management		Newly added support for connecting ZK 16/32-channel dual-disk standard NVR hardware
40		Video Playback		Newly added support for smart retrieval with human and vehicle characteristics filter; the target video can be quickly retrieved and marked in different colors via ZKNVR
41		Decode on the wall		Configurable linkage alarm to be displayed on the splicing wall window; once triggered, can be automatically displayed on the splicing wall, realizing window roaming (with ZK decoder)
42		Intelligent Analytics		Newly added support for BioSense series intelligent analysis function linkage with alarm and access control bidirectional linkage
43				Newly added support for linkage alarm decoding and display on wall configuration, camera selection and wall display time can be selected
44		Statistics Analysis		Newly added support for object detection alarm; intelligent motion detection alarm with human and vehicle characteristics; region detection intelligent alarm with human and vehicle characteristics; line crossing detection intelligent alarm with human and vehicle characteristics; target counting intelligent alarm with human and vehicle characteristics
45		Log		Supports switch control of CU request, as well as client request logs
46		Add ONVIF Device		Third-party NVR is supported to connect to the platform for basic video management via ONVIF protocol, which currently supports only preview

47		C/S Client	The client supports preview, playback, electronic maps, alarms.

10 Version 5.4.2

Release Date: 2023/06/01   **Update Type:** Patch

Bug Fixed

1. While Adding NVR failed, the camera list has extra cameras info without cameras.
2. Fixed the issue of cannot adding the NVR with same IP (The WAN NVR has the same IP and different Port).

11 Version 5.4.1

Release Date: 2023/05/17   **Update Type:** Patch

Bug Fixed

1. Fixed the bug when changed the area of device, the event point of logs will missing and the reader name became 'other'
2. Fixed the bugs that when system auto previewed the temporary employees, the biophoto path stored in database has a '/' extra, which will lead to the biophoto sync failed to device.
3. Fixed the bug that the commands of sync personnel lack of biophoto.
4. Fixed the bug that the back-end verification events of part controllers cannot stored at database.

12 Version 5.4.0

Release Date: 2023/04/28   **Update Type:** Minor Updates

New Features and Improvements

No.	Update Module	Features	Sub-menu	Key Updates
1	Smart Video Surveillance	User Permission management	Video Preview	Added permission management for video preview, PTZ control, snapshot, recording, digital zoom, intercom.
2			Video Playback	Added permission management for video playback, video backup, snapshot, digital zoom.
3			Device Management	Added permission management for NVR and IPC management.
4			Other pages	Added permission management (such as new, fresh, edit icon) for all key features to manage more detailed.
5		Menu Adjustment	Behavior analysis configuration	Menu adjustment for keeping the consistency with ZK NVR configuration.

			Crowd situation configuration	
6		Device Management	Device connection	Added to support the connection for ZK 16/32CH NVR 2HDD models.
7		Video Playback	Video retrieval	Added to support ZK NVR for fast retrieval of target video by human & vehicle alarms, marked by different color in the play bar.
8		Decode on the wall	Large screen control	Support configuration of alarm linkage to video wall window, the triggered alarm to automatically decode to video wall floating window to display (by ZK Decoder)
9		Intelligent Analytics	Global Linkage	Added to support BioSense Series intelligent analytics based on human & vehicle targets bidirectional interaction alarm linkage with access control devices. Added to support alarm linkage video on the wall configuration, available to select channels alarm on the wall and time.
10		Statistics Analysis	Alarm Report	Added Object Detection alarm, Smart motion (human & vehicle) alarm, Area Detection (human & vehicle) alarm, Line Crossing (human & vehicle) alarm, Target Counting (human & vehicle) alarm
11		Log	Parameter Configuration	Added to support CU Request control on/off, and log request from client side.

13 Version 5.3.0

Release Date: 2023/03/10   **Update Type:** Major Updates

New Features and Improvements

No	Update Module	Key Update
1	Elevator	New support for EC16 elevator control panel: EC16 is the latest controller developed by ZKTeco, supporting 16 floors, maximum support for 128 floors, PUSH protocol, supports for direct access to floors.
2	Parking	New support for ticket dispenser (TBM01/02) access and management.
3	Smart Video	Optimize Video Patrol function: support Video Patrol based on GIS map.
4		Support intelligent function configuration and alarm linkage of Biosense series NVR.
5	Intelligent Analytics	Support ZKIVA-Edge N3 access: realize personnel and vehicle detection.

6	Locker	Optimize the function of Locker module: optimize the visual panel display, add support for message linkage (SMS/Email, WhatsAPP, Line).
7	Intrusion Alarm	1. Accessed BOSCH / RISCO support alarm linkage access control, elevator control, entrance control, video, WhatsApp, Line, SMS. 2. Support access control linkage arming and disarming (access control global linkage).
8	License	New support for user self-help license reset function.

14 <u>Version 5.2.0</u>

Release Date: 2022/12/6   **Update Type:** Major Updates

New Features and Improvements

Implemented Change	Description
Intrusion Alarm	Intrusion systems apply to places requiring boundary control and real-time monitoring. For example, when an intruder enters the restricted area, it will trigger a corresponding alarm, ensuring the area's safety. Currently, ZKBio CVSecurity integrates with BOSCH and RISCO, the third-party alarm controllers, offering functions such as arming, disarming, alarm record query and displaying defense zones on the map. The corresponding models and devices are as follows: BOSCH: B Series: B6512, B5512, B4512, B3512; G Series: B9512G, B8512G. RISCO: LightSYS32; LightSY50.

Locker Management	A New Module of ZKBio CVSecurity. This locker module manages an electronic locker system in a unified platform. As a result, administrator can manage multiple lockers simultaneously. Currently, the locker module supports the LockerPad-7B device, and offers the following functions:
	1. Supports facial recognition and card verification.
	2. Supports online and offline working modes.
	   a. Online mode: With ZKBio CVSecurity's security platform, administrator can unify the locker users' allocation, advertising resources distribution, data recording and other functions of multiple devices.
	   b. Offline working mode: To manage device parameters, data records, locker users' allocation and advertisement displaying through the LockerPad-7B.
	3. Supports locker users' management and set different usage rules according to the type of users:
	   a. Fixed users: e.g., permanent staff in factories and offices.
	   b. Temporary users: e.g., supermarket customers, generally random allocation
	   c. Fixed users + Temporary users: e.g., in some tourist areas, available for staff and tourists to use the locker at the same time.
	4. Supports cabinet allocation for one user, one cabinet for multi-users, one user for

	multi-cabinets.
	5. Supports digital advertisement placement with image and video (3GP, MP4, MKV, WEBM, PNG, JPG, JPEG, GIF) to increase commercial value and drive foot traffic.
	6. Provides storage-pick-up records review.
	7. Offers basic functions such as parameter setting, multi-language (Simplified Chinese & English) switching.
Device Replacement	In the actual use process, there are often cases of equipment failure; re-adding equipment means that you need to reset the device parameters. ZKBio CVSecurity's latest function of replacing equipment, to achieve a one-click device replacement application. When the same type of equipment fails to operate, you only need to enter the serial number of the new device to restore previous settings.
Fast Target Search	When a suspicious person is found during real-time video viewing or playback, you can zoom in and take screenshots, and quickly track the suspicious person by using the quick "Target Search" button to achieve a person track search.
Respondent Self-approval	Optimize the visitor process, after the visitor invitation email is sent, ZKBio CVSecurity will send an audit email to the host. The host can complete the operation of "Review or Reject" by clicking on the audit link of the email, then quickly complete the review.
Import or Export Access Level	Support import or export "access level". Batch import of "person information" and "access level" via Excel to quickly complete the access control configuration in the project.

15 Version 5.1.1

Release Date: 2022/08/18   **Updates Type:** Major Updates

New Features and Improvements

Implemented Change	Description
Intelligent Video	1. PTZ Control: Support cruising with pre-set time and positions 2. ZKNVR (Z8536NMR /Z8536NHR /Z8564NHR /Z85128NTR)-General intelligence - Ability to set video linkage, support link to email, review recording, monitor and PTZ control. 3. Support video intercom. Support watermark function. 4. Protect the image from being copied and reused without permission and prevent information leakage. 5. Support Tiandy network video recorder (NVR) management. 6. Support a real-time push notification of abnormal type alarms on the ZKNVR and history record query. The abnormal type alarms will be triggered when the hard disk is full; the system has not connected to the hard disk; the hard disk network is disconnected; the hard disk has a SMART error; network failure and IP address conflict.

	7. Support Global video linkage:

	1) Linkage to capture a photo, linkage to record a video and linkage to a pop-up window.
	     2) Linkage to access control and linkage to ladder control.
	     3) Linkage to send an email or SMS.

Intelligent Scene	1. Attendance checking and adding duty plan. The dashboard shows a general report of the current duty personnel. 2. Users can customize my dashboard. 3. Video Linkage supports a user-defined list library to alarm. 4. Support live alarm to real-time monitoring. All alarm from IPC or ZKIVA-Edge T1. 5. The system can identify and capture stranger's photo in surveillance area and add to list library. 6. Supports quick target search and personnel trajectory drawing with captured photos. 7. The camera added to ZKIVA-Edge supports fast binding NVR for storage applications.
Access Control	1. Added the Muster Point function to solve the problem of rapid roll call counting in emergency situations such as firefighting. 2. Add Personnel In/Out Board, mainly used at construction site, to show personnel entry and exit information.
Visitor	Support auto sign-in in the informal settings. Visitors do not need to register on-site and get pass quickly.
Parking	1. Support LPR-BEST Protocol devices. 2. Support Car ID. 3. Support the dual identification of drivers and vehicles and determine whether the driver and the license plate information match the system. The user deploys this function in a high security and protection environment.
System	1. Support for switching databases through the console. 2. Linkage to WhatsApp. 3. Linkage to Line.

16 Version 5.0.0

Release Date: 2022/04/23   **Updates Type:** Major Updates

New Features and Improvements

Implemented Change	Description
Intelligent Video	Compare ZKBioSecurity VMS: 1. "Crowd detection" includes crowd density detection, crowd movement detection and heat maps. 2. "Smart target search" supports searching targets by gender, age, hairstyle, mask, glasses, hat. 3. "Smart vehicle detection" supports vehicle search and detection by multi-credential such as, plate number, vehicle type, vehicle brand, vehicle colour, etc. 4. Supports behaviour analysis such as line crossing detection, intrusion detection, object left detection, object remove detection, region entrance, region exiting, rapid movement, wandering detection, and alarm linkage for abnormal behaviour. 5. Supports intelligent reserve image search function. 6. Maximum supports 1024 video channels, license-free for the first 64 channels, support 16 channels real-time playback simultaneously.
Intelligent Scene	1. Tailing detection: Facial recognition record can cross-check with access control record to validate any personnel enter without access control record. 2. Perimeter Protection Function: smart video analysis with line crossing detection to detect anyone crossing the perimeter with real-time snapshots or short videos for crossed line objects, an intelligent dashboard and detailed summary reports. 3. Personnel control function: Facial recognition function cross-check with allowed list, prohibited list and strangers to prompt notifications, alerts, real-time snapshot and summary reports and detailed summary reports. 4. Attendance Checking Function: Real-time checking personnel attendance in the delegated area, intelligent dashboard. 5. People counting: Dynamically count the number of people in the area, and alarm when the number of people reaches the set value. 6. "Advanced smart target search" in the intelligent scene module provide more compensative functions and supports the full-platform event search of multi-credential such as, person's name, ID number, reverse image search, gender, age, mask, glasses, jacket colour, and trousers colour, and generating detail person trajectory.
Attendance	The video capture records can be considered as an attendance log when users forget to check in/check out on attendance devices.
API	1. Support Dynamic QR Code. 2. Support departure employee. 3. Support Access Level sync to the device. 4. Support attendance exception application interface (leave, overtime, etc). 5. The parking module supports adding, deleting, and changing the license plate number of personnel.
Personnel	1. New add List Library to manage pass or prohibit people. 2. Support person ID starts with 0, like 00001.

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