NVR-B5170.39.47.250218 Release Notes

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NVR-B5170.39.47.250218 Release Notes

Keywords: Version information, usage notes, precautions.

Abstract: This document provides information about the **NVR-B5170.39.47.250218** board software, including version information, usage notes, precautions, and features.

Acronym

Acronym	Full Name
NVR	Network Video Recorder

Contents

1 Version Information

1.1 Version Number

NVR-B5170.39.47.250218

1.2 Applied Product Models

Table 1 Applied Product Models

Product Models	Description
NVR516-32S	16 HDD, 32 IP channel, H.264 and H.265
NVR516-64S	16 HDD, 64 IP channel H.264 and H.265

1.3 Release History

Table 2 Released Versions

Version No.	Basic Version No.	Released On	Remarks
NVR-B5170.39.47.250218	NVR-B5170.39.45.250108	2025-02-21	Improved release
NVR-B5170.39.45.250108	NVR-B5170.39.43.241114	2025-01-08	Improved release
NVR-B5170.39.43.241114	NVR-B5170.39.41.241015	20247-11-14	Improved release
NVR-B5170.39.41.241015	NVR-B5170.39.37.240918	2024-10-22	New functions improved release
NVR-B5170.39.37.240918	NVR-B5170.39.27.240813	2024-09-18	Improved release
NVR-B5170.39.27.240813	NVR-B5170.39.26.240726	2024-08-13	Improved release
NVR-B5170.39.26.240726	NVR-B5170.39.23.240627	2024-07-30	Improved release
NVR-B5170.38.55.240627	NVR-B5170.38.53.240524	2024-07-01	Improved release
NVR-B5170.39.23.240627	NVR-B5170.38.53.240524	2024-06-28	New functions improved release
NVR-B5170.38.53.240524	NVR-B5170.38.52.240416	2024-05-28	Improved release
NVR-B5170.38.52.240416	NVR-B5170.38.45.240313	2024-04-17	Improved release
NVR-B5170.38.45.240313	NVR-B5170.38.44.240305	2024-03-13	Improved release
NVR-B5170.38.44.240305	NVR-B5170.38.43.240126	2024-03-05	Improved release
NVR-B5170.38.43.240126	NVR-B5170.38.29.240118	2024-02-04	Improved release
NVR-B5170.38.29.240118	NVR-B5170.38.27.231222	2024-01-18	Improved release
NVR-B5170.38.27.231222	NVR-B5170.38.26.231124	2023-12-22	Improved release
NVR-B5170.38.26.231124	NVR-B5170.38.25.231109	2023-11-24	Improved release
NVR-B5170.38.25.231109	NVR-B5170.38.24.231102	2023-11-09	Improved release
NVR-B5170.38.24.231102	NVR-B5170.38.23.231011	2023-11-02	Improved release

NVR-B5170.38.23.231011	NVR-B5170.38.22.230908	2023-10-11	Improved release
NVR-B5170.38.22.230908	NVR-B5170.37.45.230825	2023-09-15	New functions improved release
NVR-B5170.37.45.230825	NVR-B5170.37.44.230810	2023-08-25	Improved release
NVR-B5170.37.44.230810	NVR-B5170.37.40.230614	2023-08-18	Improved release
NVR-B5170.37.40.230614	NVR-B5170.37.35.230509	2023-06-14	Improved release
NVR-B5170.37.35.230509	NVR-B5170.36.38.230411	2023-05-12	New functions improved release
NVR-B5170.36.38.230411	NVR-B5170.36.33.230322	2023-04-20	Improved release
NVR-B5170.36.33.230322	NVR-B5170.36.31.230214	2023-03-22	Improved release
NVR-B5170.36.31.230214	NVR-B5170.36.28.230112	2023-02-14	Improved release
NVR-B5170.36.28.230112	NVR-B5170.36.27.230105	2023-01-12	Improved release
NVR-B5170.36.27.230105	NVR-B5170.36.18.221215	2023-01-05	Improved release
NVR-B5170.36.18.221215	NVR-B5170.35.29.221119	2022-12-15	New functions improved release
NVR-B5170.35.29.221119	NVR-B5170.35.27.221010	2022-11-19	Improved release
NVR-B5170.35.27.221010	NVR-B5170.1.5.220727	2022-10-10	Improved release
NVR-B5170.1.5.220727		2022-07-27	Initial release

2 Usage Notes

None.

3 Software Features

Table 3 Software Features

Service	Feature
Audio and video decoding	H.264 and H.265, 4K resolution display, up to 16Mbps bit rate.
Data storage	Local storage of recordings in hard disk(s).
Web-based management	Web-based user interface for device configuration and management.

4 Version Change Description

4.1 Feature Change Description

Table 4 NVR-B5170.39.47.250218 Feature Changes

Item	Feature	Description
Newly added features		

Item	Feature	Description
Optimized features		Optimized the policy of connecting certain IPCs via private protocol.
Deleted features		

Table 5 NVR-B5170.39.41.241015 Feature Changes

Item	Feature	Description
Newly added features		IP Speaker family (IPS301015-S/ IPS302015-S/ IPS302030-S) supports complete configuration on NVR.
Optimized features		
Deleted features		

Table 6 NVR-B5170.39.23.240627 Feature Changes

	Feature	Description
Newly added features	Optimized non-plug-in function	NVR allows to play live videos on multiple windows (up to 16 windows), play back and download recordings, and play recordings of smart search results even if the plug-in is not installed.
	Supports storing images to EZCloud via Websocket persistent connection	NVR supports connecting the upper platform (EZCloud) via Websocket persistent connection for signaling interaction and normal services. NVR supports reporting image and data from motion detection, human body detection, UMD, face recognition, SIP, behavior analysis, thermal imaging SIP & temperature detection, and object detection to the cloud, and the upper platform can receive the related alarms and snapshots.
	Supports SmartSearch+	The smart playback supports searching recordings by motor vehicle, non-motor vehicle, and human body. In the smart playback mode, select [icon], [icon], or [icon] , and click [icon] to reduce the search area. You can also click [icon] to set to skip normal recordings and set the playback speed so as to quickly find the video containing the target.
	Supports IP speaker access	NVR allows to search, add, delete, and edit the IP speakers. NVR can configure audio files for the online IP speaker, including audio file import, IP speaker output volume adjustment, and audio test. NVR supports two-way audio and audio broadcast with IP speakers. NVR supports IP speaker alarm sound and allows to play the specified audio when an alarm occurs (except the abnormal alarm).
	Supports streaming media forwarding	NVR supports streaming media forwarding via TCP. The UNV-Link app supports live view and playback via TCP forwarding and allows to start streaming via NAT traversal or UDP forwarding. As UDP transmission is unreliable, the streaming may fail to start and abnormal signaling interaction may occur in some public network environments. Therefore, the TCP forwarding function is added to deal with this problem.

Feature	Description
	It requires the UNV-Link app support. The streaming is started via the P2P technology by default. If P2P streaming fails to start, the streaming media will be forwarded via TCP.
Supports connecting the general face capture cameras	NVR allows to connect the smart face capture cameras.
	When the camera connects to the NVR and goes online, the live view, storage, and smart functions can be used normally. For the general face capture cameras, on the Advanced page of the Face Detection configuration page, the face selection mode is Quality Priority by default, and the number of selected photo is 1 and cannot be configured.
Supports IPC list import and export	The Camera page on the NVR's local and Web interfaces allows to import and export the IPC list.
	NVR supports exporting the added channel information to a CSV file, including channel number, channel name, addition method, channel address, port, remote channel number, protocol, server address, channel code, transmission protocol, PTZ, username, password, and long-distance transmission (available for PoE NVR), which can reduce the workload of installation personnel to collate and copy the IPC information.
	NVR also supports importing the table with the edited IPC information, which can reduce the workload of installation personnel to manually add and edit the IPC information.
Alarm service supports domain name configuration	NVR allows to configure IP address or domain name for the server address on the Alarm Service page and supports domain name resolution. Then, the NVR can connect to the server via the resolved domain name, and there is no need to configure the server IP if the server IP changes.
The hot spare device supports playback	When one of multiple working NVRs failed, the hot spare takes over to replace the faulty one. The hot spare NVR supports configuring RAID and playback. You can add hot spare devices on EZStation and view the live video and playback of host space channel on EZStation. When the faulty NVR recovered, it takes over the hot spare, and the hot spare cannot use the live video and playback functions.
	It requires that the NVR supports hot spare and sets the working mode to Hot Spare.
Supports smart data backup on the Web interface	NVR allows to export smart search results on the Web interface, including records, images, and videos.
Optimized security policy	The login password of SSH is the same as the password of admin user, which is the default system login password.
Improved playback page on the Web and local interfaces	1. Buttons Normal Smart are added on the playback toolbar of Web and local interfaces, which can switch the normal playback and smart playback quickly. The normal playback is enabled by default.
	2. A drop-down list All ⌄ is added on the playback toolbar of Web and local interfaces. In the normal playback mode, when the recording of the single camera is played, you can click the All drop-down list to choose an event type and search the corresponding recordings.
	3. Click [icon] to enter the corridor mode on the local interface.
	4. A button [icon] is added on the playback toolbar of Web and local

The first column has two spanning labels: rows above "Optimized security policy" belong to a feature group, and "Optimized features" spans the bottom rows (Optimized security policy and Improved playback page).

	Feature	Description
		interfaces. 1). The recording clarity (HD/SD) is moved to ⚙. 2). When the recordings of motor vehicle/non-motor vehicle/human body are played, you can click ⚙ to set to skip normal recording and set the playback speed as needed. 3). The Display Ratio on the Web interface is moved from the playback toolbar to ⚙. 4). The Interval to rewind or forward the recording on the local interface is moved to ⚙. 5. A button ••• is added on the playback toolbar. 1). The buttons 🔍 and 🖵 on the Web interface are moved from the playback toolbar to •••. 2). The button ▭ on the local interface is moved from the playback toolbar to •••. 3). The 🅿 button to enable/disable the POS OSD is moved from the playback toolbar to •••.
	Improved search page on the local interface	The Others sub-menu is added on the Search menu on the local interface, which includes event types that are not so frequently used, for example, tag search.
	Improved smart search page on the Web interface	The **Other Search** tab is added on the smart search menu, which includes event types that are not so frequently used, for example, tag search.
	The target types of SIP are displayed based on the IPC capacity	When various models of IPCs go online on the NVR, the intrusion detection and cross line detection configuration pages of the NVR display and hide three target types (including motor vehicles, non-motor vehicles, and pedestrians) and the corresponding target size based on the IPC capacity. For general IPCs, the intrusion detection and cross line detection configuration pages show the target type item and allow to configure the target type as needed. The target size configuration item is hidden. For deep learning IPCs, the intrusion detection and cross line detection configuration pages show the target type item and allow to configure the target type and the corresponding target size. For smart IPCs, the intrusion detection and cross line detection configuration pages have no target type or the target size configuration item.
	Supports packet capture based on multiple conditions	Before optimization, the NVR only supports capturing packets of one IP address and one port. After optimization, the NVR can capture packets of the specified ports and IPs, or except the specified ports and IPs. Up to 5 IPs and ports are allowed.
	Supports HDMI audio output when the two-way audio is performed between the NVR and app	Turn on the two-way voice with the NVR on your mobile app, and the HDMI interface has audio output when the NVR connects the monitor via the HDMI interface.

	Feature	Description
	VCA Config	When switching the VCA Config page and the intelligent function configuration page (such as face detection, cross line detection, etc.), the channel on the enabled intelligent function configuration page is changed as the channel on the VCA Config page. If the channel on the VCA Config page is not supported by the intelligent function, the intelligent function cannot be configured.
Deleted feature	Deleted the playback event type and HD/SD drop-down lists on the left side of the Web's playback page	Normal/smart playback and HD/SD are moved to the playback toolbar. See Improved playback page on the Web and local interfaces for details. The frequently used event types are moved to [All ▾] on the playback toolbar. Other search types (for example, tag search) are moved to Smart > Search > Other Search.
	Deleted the Video Retrieval tab from the left side of the local interface's playback page	The frequently used event types are moved to [All ▾] on the playback toolbar. Other search types (for example, tag search) are moved to Search > Others > Other Search.
		The clarity cannot be adjusted in the smart playback mode on the local interface

Table 7 NVR-B5170.38.52.240416 Feature Changes

Item	Feature	Description
Newly added features	NVR supports switching PAL/NTSC for the connected cameras	The frame rate may vary with different countries. Uniview IPC at the default frame rate may cause the scrolling stripe on the image. To address this issue, the NVR now requires user to choose PAL or NTSC. When the NVR starts for the first time, the Wizard page ask the user to choose the region and video standard (PAL or NTSC). When user chooses the area, the recommended language and video standard will be filled in automatically. You can also choose other language and video standard as needed. The video standard can be also set at Menu > System > General > Basic Setup. After the video standard is selected, the NVR will sync the video standard to the connected cameras when the cameras go online for the first time, and the capture mode of the cameras will be updated automatically. PAL(50Hz): The capture mode will switch to the maximum resolution @25 or @20. NTSC(60Hz): The capture mode will switch to the maximum resolution @30 or @20. Remark: This function requires the camera support.
	IPVM Solutions for Network Security	

Item	Feature	Description
Improved features	Changed restriction policy of IPC access via the private protocol	Uniview NVRs (including non-brand and OEM NVRs) do not allow to connect the third-party IPC via the private protocol.
Deleted features		

Table 8 NVR-B5170.38.43.240126 Feature Changes

Item	Feature	Description
Newly added features	Uniview NVR cannot connect IPC with invalid serial numbers via the private protocol	Uniview NVR allows to connect Uniview IPC or IPC with valid serial numbers via the private protocol. Uniview NVR does not support connecting non-Uniview IPC or IPC with invalid serial numbers via the private protocol. Please select the correct protocol for IPC connection. Note: The non-brand NVR and OEM NVR are not subject to the strategy above.
	Allows to configure UMD for dual-lens cameras	NVR supports configuring UMD for dual-lens cameras. When NVR connects dual-lens cameras that support UMD, the following functions are available: parameters configuration, alarms receiving and storage, smart search, and results display.
	Supports Onvif digest authentication	Supports digest authentication for third-party IPCs. In digest authentication mode, the third-party IPCs can connect the NVR successfully with all functions working properly. In digest authentication mode, the NVR can also successfully connect to the upper platform with all functions working properly.
	XVR cannot connect to NVR via the private protocol	NVR allows for connecting XVRs via the Onvif or RTSP protocol. The private protocol is not allowed.
	Supports connecting the upper platform via the LAPI protocol	NVR can connect the upper platform with the LAPI protocol, and the following functions are available: uploading images and data (from face recognition, SIP, behavior analysis, thermal imaging SIP & temperature detection, object detection, multi-target detection, and plate detection), adding/deleting/editing/searching face library image, searching face image by image, and reporting people counting data. The final results as alarms or events depend on the upper platform. The thermal imaging SIP & temperature detection, and plate detection are camera-side analysis, which requires camera support. The supported alarms and events may vary with device models.
Optimized features	Optimized prompts for retrieving the password	Before modification: The path to retrieve the password on the app is difficult to find, and it may vary among different apps. After modification: Click **Forgot Password** on the NVR's login page of the local or Web interface, then the QR code appears. You can scan the code with app to retrieve the password.
	Optimized plate template	After you export the plate template to the PC and edit the csv file, the file contents are correct in format and the file can be

Item	Feature	Description
		successfully imported to the NVR.
Deleted features	/	

Table 9 NVR-B5170.38.22.230908 Feature Changes

Item	Feature	Description
Newly added features	Allows to connect camera that supports plate license detection via the private protocol	The **Plate Detection** function bar is added on the **VCA Config** page, including **Plate Detection** and **Plate Comparison**. **Plate Comparison** is moved from the **Vehicle Monitoring** menu to the **VCA Config** page. The plate comparison is only available to the NVR-side analysis, while the plate detection is only available to the camera-side analysis. The camera can still be connected to NVR via the GA/T 1400 protocol. Connect the camera that supports plate license detection to the NVR via the LAPI protocol, and enable **Plate Detection** after the camera is online. The NVR will receive vehicle snapshots from the camera when an alarm occurs without configuring GA/T 1400 protocol parameters on the IPC and NVR's interfaces, easier for operation.
	Supports searching playback by motor vehicle, non-motor vehicle, and human body	On the **Playback** page of the local and Web interfaces, user can search recordings by objects including motor vehicle, non-motor vehicle, and human body, so as to quickly view the desired object recordings, improving the search efficiency. The object recordings are triggered by alarms such as smart intrusion prevention, UMD, human body, etc. Select any object of motor vehicle, non-motor vehicle, and human body, and the corresponding recordings will be shown green on the progress bar. Select **Skip normal recording**, and the playback page will only play recordings of the corresponding object. This function is only available to the single-channel playback, normal and corridor mode.
	Supports multiple languages for overseas devices	Supports changing other languages on the local interface (**System** > **General** > **Basic Setup**) and Web interface (**System** > **Basic**). When changing the system language, a pop-up prompt will be displayed to ask the user to restart the NVR.
	Supports panoramic linkage and calibration with dual-lens network PTZ camera	When the connected camera is capable of panoramic linkage, the following functions are available on the NVR: enabling/disabling linkage, auto calibration, and manual calibration on the image of the dual-lens network PTZ camera. Go to **Camera** > **Panoramic Linkage**, and configure the function. Panoramic Linkage is enabled by default. Click **Auto Calibration**, and start calibration: (1. Adjust the panoramic image to the desired position; 2. Start auto calibration, and the calibration progress will be shown). After completing calibration of 6 points, the coordinates parameters will be shown in the list. Click any coordinate, and the close-up image shows the clicked point at the image center. To change the coordinate, you can adjust the PTZ parameters, and then click 🖫 to save the settings. On the **VCA Config** page of the bullet camera's channel, select a smart intrusion prevention function, and enter the **Trigger Actions** page. The **Panoramic Linkage** is added under **Camera Linkage**. After enabling it, the panoramic linkage will be triggered when a smart intrusion prevention alarm occurs. NVR currently only supports automatic calibration and manually

Item	Feature	Description
		editing the calibration parameters.
	Allows to connect UMD-enabled IPCs that support day/night mode of alarm sound/light	NVR can connect UMD-enabled IPCs that support alarm sound/light and arming schedule. User can choose day/night mode or custom mode on the alarm sound/light configuration page, and configure the arming schedule. This function requires camera support.
	Allows to connect camera-side smart intrusion prevention and UMD-enabled IPC to collect object attributes	NVR can connect IPCs that support object attributes by camera-side smart intrusion prevention and UMD. The NVR will receive and store images and object attributes (motor vehicle, non-motor vehicle, and human body) from IPC, and the VCA search results will show the detail attributes. On the **Human Body Search** page, Upper Garment Color and Lower Garment Color are added on the Basic Attributes.,and on the **Non-Motor Vehicle Search** page, Upper Garment Color is added on the Basic Attributes, which allows user to search images by these new attributes. This function requires camera support.
	Supports adding NAS disk via the domain name	NVR allows to add NAS disks from the public network via the SMB/CIFS protocol and IP address or domain name. The NAS disks can store and back up recordings and snapshots. Supports formatting NAS disks.
Optimized features	Merges NVR disarming and IPC disarming into one-key disarming	**NVR Disarming** and **IPC Disarming** tabs are merged to the **One-Key Disarming** tab. Alarm sound and alarm light are added to IPC disarming actions. The configured disarming mode and actions will be synced to the selected IPCs. When an alarm occurs, the disarming actions will not be triggered during the disarming schedule. **Alarm Output** is added to the one-key disarming actions. The linked channel configuration of **Disarm by Switch** is deleted from the **Alarm Input** tab. The one-key disarming tab can configure alarm output and select corresponding NVR and IPC channels. When an alarm occurs, the alarm devices (eg, alarm light) connected to the corresponding alarm output interfaces will not be on.
	One-key disarming and alarm-triggered actions support **Push Alarm**	**Push Alarm** is added on the alarm-triggered actions and enabled by default. The NVR will push alarm to its upper platform and app when an alarm occurs. **Push Alarm** is added on the one-key disarming actions and disabled by default. When enabled, the NVR will not push alarm to its upper platform and app during the disarming schedule if an alarm occurs.
	Send Email allows to send alarm information and snapshot to the email	The NVR will send an email attached with snapshot(s) to the recipient's email when an alarm occurs. In the previous version, the NVR will send two emails when an alarm occurs, including the first email without snapshot and the second email with snapshot. This is optimized in this version.
	Allows to send three snapshots to email address(es) of the smart intrusion prevention alarm	After selecting **Send Email** of smart intrusion prevention alarm-triggered actions, the NVR will send three snapshots occurring before an alarm, during an alarm, and after an alarm to the corresponding email address(es).
	The local interface supports drawing the detection area of VCA functions in full screen	On the VCA function configuration page of the local interface, select a detection rule and click the Draw icon, and then the live view will show the full screen, where you can draw detection area(s), easy and accurate. Right-click can exit the full screen.

Item	Feature	Description
	Merges **VCA Search** and **Backup** menus	**VCA Search** and **Backup** menus are merged into **Search**, a newly added menu.
		Recording and **Image** are moved to from the menu **Backup** to **Search**, and changed to **Video** and **Picture** separately.
		For VCA Search of the previous version, **Human Body Search**, **Face Snapshot Search**, **Face Comparison Search** tabs are merged into the **Person** menu (**Menu** > **Search** > **Object** > **Person**), the **Motor Vehicle Search** tab is moved at **Menu** > **Search** > **Object** > **Motor Vehicle** > **Motor Vehicle Search**, the **Non-Motor Vehicle Search** is moved at **Menu** > **Search** > **Object** > **Non-Motor Vehicle** > **Non-Motor Vehicle Search**, the **General Search** tab is changed to **Event,** and **People Counting Report** is changed to **Statistics**.
	Improved layout of VCA functions	On the **VCA Config** page, VCA functions are re-arranged from top to bottom: Smart Intrusion Prevention, Face Recognition, Object Detection, People Counting, Plate Detection, Temperature Detection, and Exception Detection & Statistics. Functions that are unavailable to the device are hidden.
	Supports linear stripe suppression and smart white light	NVR can connect IPCs that support smart white light. After the IPC is online, **Smart White Light** can be selected from the **Illumination Mode** drop-down list. When enabled, the illumination light will reach the highest intensity when an alarm occurs at night, and it will restore to original intensity after the alarm ends, reducing light pollution.
		NVR can connect IPCs that support linear stripe suppression. After the IPC is online, the **Linear Stripe Suppression** item can be configured on the **Exposure** tab. Adjust it to a suitable level for removing stripe when the exposure mode is set to indoor 50Hz or 60Hz.
		This function requires camera support.
	Supports WDR smart or automatic mode	NVR can connect IPCs that support WDR smart or automatic mode. After the IPC is online, **Smart** or **Automatic** can be selected from the **WDR** drop-down list. When enabled, **Linear Stripe Suppression** and **WDR On/Off Sensitivity** are allowed to configure.
		This function requires camera support.
	Supports face metering	NVR allows to connect IPCs that support face metering. When the IPC is online, **Face Metering** can be selected from the **Metering Control** drop-down list, and can be synced to IPC.
	Improved playback page on the local interface	1. On the playback page, playback and video retrieval toolbars on the left side are arranged from up-to-down to left-to-right, convenient for operation.
		2. Adjusts the layout of playback toolbar at the bottom of the playback page.
	Improved local interface	1. The camera list page is optimized. Multiple operation buttons are merged, for example, the **Default** operation is moved from the **Advanced** tab (**Menu** > **Camera** > **Camera** > **Advanced**) to the **Camera** tab.
		2. **Encoding** and **Audio** tabs are moved to the **Audio & Video** menu.
		3. **OSD**, **Content**, **Image**, and **Privacy Mask** tabs are moved to the **Configuration** menu.
		4. The **Snapshot Type** tab is moved from the **Camera** menu to the **Snapshot Schedule** menu, as a same-level tab with **Configure Snapshot Schedule.**
		5. **Basic**, **Time**, **Time Sync**, **DST**, and **Holiday** tabs are

Item	Feature	Description
		moved to the **General** menu (**Menu** > **System** > **General**).
		6. **Serial**, **Hot Spare**, and **Unit** tabs are moved to the **Advanced** menu (**Menu** > **System** > **Advanced**).
		7. **Restore**, **Auto-Function**, and **System Backup** tabs are moved to the **Maintenance** menu (**Menu** > **Maintenance** > **Maintenance** > **Maintenance**).
		8. **Privacy Policy** and **Open Source Notices** tabs are moved to the **Basic Info** tab.
	Adds a **Close** button on the login page of the local interface.	A **Close** button is added on the **Login** page of the local interface.
	Optimized policy of NVR password syncing to IPC	On the **Change Password** page, **Sync to Camera** is disabled by default. If you change the NVR password and then enable **Sync to Camera**, a dialog box will be displayed for prompt.
	Supports configuring force recognizing HDMI output	A configuration item **Force Recognizing HDMI Output** is added on the Web's hidden interface. It is disabled by default. When enabled, a prompt appears to ask the user to re-start the NVR. After startup, the video will be forced to output on the local interface via the HDMI port.
	Optimized time sync mode	On the **Time** page of local and Web interfaces, the **Time Sync Mode** item is added, including **Disable Sync**, **Sync with NTP Server**, and **Sync with Cloud Server**. It is **Disable Sync** by default.
	Optimized prompt of no hard disk	After the NVR starts up, the system will automatically detect available hard disks. A dialog box will appear if no disk is detected within 30s, and the detection will continue for 2 minutes. If a hard disk is detected during the 2 minutes, the dialog box will disappear; otherwise, user needs to close it manually. Select **Don't remind me again**, and then the dialog box will not appear after next startup. If the NVR restores to default settings, the dialog box will appear when no disk is detected.
	Disabled UPnP by default	UPnP is disabled by default when the system is in factory configuration mode.
	Changed the alarm names of **Smoke and Fire Detection** and **Temperature Detection**	The alarm names of **Smoke and Fire Detection** and **Temperature Detection** are changed to **Fume Alarm** and **Abnormal Temperature Alarm** respectively.
	Changes Uniview protocol name to Private	When IPCs are added to NVR via our company's protocol, the protocol name is changed from **Uniview** to **Private**.
	Disabled **Force Sending I Frame** by default.	The **Force Sending I Frame** item on the Web's hidden interface is disabled by default.
	Improved **default** user on the local interface	For the default user, the user type is changed from **Reserved User** to **Local Preview User**, and the user description is added, "Note: By default, the default user can only view live video on the local interface without logging in".
	Improved expression	**Upstream Management** is changed to **Streaming Management.** **Valid Period** is changed to **Validity Period**; **Set Valid Period** is changed to **Set Validity Period**. **Delete** on the **EZCloud** tab of the Web's interface is changed to **Logout**.
	Supports uploading LPR	NVR can connect to VMS via the LAPI protocol, and upload

Item	Feature	Description
	information to VMS via the private protocol	LPR alarms and snapshots.
Deleted features	Deleted the **Backup** menu, and the **VCA Search** menu on the **VCA** page	The **Backup** and **VCA Search** menus are merged to the **Search** menu. See "Merges **VCA Search** and **Backup** menus" for details.
	Deleted **NVR Disarming** and **IPC Disarming** tabs	See "Merges NVR disarming and IPC disarming into one-key disarming" for details.
	Deleted disarming channel configuration of **Disarm by Switch**	The linked channel configuration of **Disarm by Switch** is moved from Alarm Input to One-Key Disarming. See "Merges NVR disarming and IPC disarming into one-key disarming" for details.
	Deleted the **Vehicle Monitoring** menu and the **Vehicle Alarm Monitoring** tab	The **Vehicle Monitoring** menu is changed to **Plate List**, and the **Vehicle Alarm Monitoring** tab is changed to **Plate Comparison** and moved to the **VCA Config** page.
	Deleted auto update item of the **Time** tab.	The auto update item is changed to **Sync NTP Server** under the **Time Sync Mode** item. See "Optimized time sync mode" for details.

Table 10 NVR-B5170.37.44.230810 Feature Changes

Item	Feature	Description
Newly added features	Supports configuring force recognizing HDMI output	A configuration item **Force Recognizing HDMI Output** is added on the Web's hidden interface. It is disabled by default. When enabled, a prompt displays to remind the user that this change will restart the NVR. After startup, the video will be forced to output on the local interface via the HDMI port.
Improved features		
Deleted features		

Table 11 NVR-B5170.37.35.230509 Feature Changes

Item	Feature	Description
Newly added features	Camera-side mixed traffic detection	When the connected camera is capable of mixed traffic detection, the following functions are available on the NVR: enabling/disabling detection, parameter configuration, receiving/storing images from IPC, smart preview, smart search by motor vehicle/non-motor vehicle/human body, or searching mixed traffic events, attributes/results display, uploading image with attribute information to the upper platform.
	Camera-side traffic monitoring	When the connected camera is capable of traffic monitoring, the following functions are available on the NVR: enabling/disabling monitoring, parameter configuration, receiving/storing images from IPC, smart preview, smart search by motor vehicle/non-motor vehicle/human body, or searching traffic monitoring events, attributes/results display, uploading image with attribute information to the upper platform.

The traffic monitoring can only be enabled/disabled on the NVR but cannot be configured on the NVR. Compared with mixed-traffic detection, traffic monitoring can capture vehicles passing a tripwire in real time. Besides, lane detection and motorcycle detection are added. |
| | Improved layout of VCA | Face snapshot search and face comparison search tabs are moved to the |

Item	Feature	Description
	search	**Face Search** menu (only for the local interface).
		Allows user to search images by object types on the page of motor vehicle search, non-motor vehicle search, and human body search, and search by events on the general search page.
		Deleted behavior search, and user can search behavior images on the page of motor vehicle search, non-motor vehicle search, human body search or general search.
		Deleted vehicle search, and user can search vehicle images on the page of motor vehicle search and general search.
		The improved layout enables user to search images by objects and by events.
	Improved layout of smart display configuration	On the local interface, the smart preview page of the local interface, event types of face, vehicle, perimeter are deleted, and user now can select object types to display their real-time snapshots based on motor vehicle, non-motor vehicle, face and human body.。The smart display configuration on **Smart Preview** page now displays two tabs: **Alarm Subscription** and **ShowTime Attr Config**.
		The **Alarm Subscription** tab includes Face Recognition, Smart Intrusion Prevention, Vehicle Recognition, Object Detection, Temperature Detection, and Behavior Analysis. User can set to display images of the specified alarm types.
		The **ShowTime Attr Config** tab includes human body attributes, non-motor vehicle attributes and motor vehicle attributes, and user can set to display detailed attributes (only mixed-traffic detection and traffic monitoring support attribute configuration, and up to 3 items can be selected for each type of attribute).
	NVR supports sending an email with alarm information to the specified email address(es) when an alarm occurs.	NVR can send an email with alarm information to the specified recipient(s), avoiding frequent alarm information push to all email addresses.
		The alarm configuration page added the **Send Email** item with a list showing the configured recipients' addresses. Up to 6 recipients are allowed and the chosen recipients will receive an alarm email when an alarm occurs.
	The local interface supports overlay multi-line characters on the preview page.	The **OSD Content** tab is added at **Camera** > **OSD**, which allows to configure custom OSD for the IPC. Up to 5 OSDs are allowed and each OSD can be enabled/disabled and named separately.
	Allows to configure arming schedule and day/night mode for IPC that supports alarm sound/light for human body detection.	For cameras that support human body detection and sound/light alarm schedules: user can configure an arming schedule for sound and light alarms.
		For cameras that support human body detection and sound/light day/night mode: user can select day/night mode or custom mode to configure parameters for sound and light alarms.
		This function requires camera support.
	NVR supports configuring alarm sound/light for auto-tracking dome cameras.	Connecting the auto-tracking dome cameras that support sound and light, user can configure alarm sound/light for auto tracking, including day/night mode, arming schedule and audio of sound, and day/night mode and blink time of light.
	Supports rapidly disarming IPC actions on NVR	On the local interface, appears on the preview window when the NVR receives an alarm from a camera (if it is a tampering detection alarm).
		is added on the window toolbar to disarm IPC actions. This function requires camera support and is currently applicable to elevator detection alarms.
	The Web interface adds streaming management	Streaming management function is added on the **Maintenance** menu of the Web interface, including **Live View** and **Playback** tabs. User can

Item	Feature	Description
	function.	view detailed information about live and playback streams on these tabs and stop streaming manually.
	The local interface supports displaying passwords of online IPCs.	The local interface can display camera passwords on the **Camera** page. The admin user can click a button (**Show IPC Password**) to view the passwords of online IPCs after authentication.
	A small eye icon is added on the password input pages of the local interface, and the password can be displayed in cleat text by clicking the icon.	On the local interface, a small eye icon is added on all the password input pages (except on the login page). User can click this icon to view the password in clear text. The password is not displayed in clear text by default.
	Supports 16MP IPCs	NVR can connect 16MP IPCs via the Uniview protocol and realize functions including live view, playback, two-way audio, alarm and VCA. On the local interface, NVR cannot decode the 16MP main stream and will automatically switch to the sub stream. For playback, a message will be displayed to prompt user to switch to the sub stream if the stream exceeds the decoding capability.
	Supports 16K sampling rate in G.711 audio format	NVR can connect IPCs that support G.711U/G.711A audio compression and 8K/16K sampling rate. The local&Web interfaces support the configuration and audio decoding at 16K sampling rate in G.711 format.
	Optimized policy of hard disk access to the NVR	● For NVR with no hard disk: If there is no hard disk, the local&Web interfaces will prompt user to add a hard disk for the NVR. User can click the setting button to view hard disk information on the local interface. ● For NVR with unformatted hard disk: If there is hard disk unformatted, a message will alert user there is unformatted disk and show its slot. User can format hard disk by clicking the setting button on the local interface and configuration button on the Web interface. To close the prompt, user can click **Exit** on the local interface and **Close** on the Web interface, otherwise the prompt is always flashing. This event will not recorded in logs or alarms.
	Optimized prompt of abnormal device time	If there is abnormal device time, the local&Web interfaces will prompt user to replace the button battery and reset the time. User can click the setting button to reset the time on the local interface.
	Supports connecting the newly-developed network storage disk enclosure(DE-S116-B)	16-HDD or 24-HDD NVRs can connect to the network storage disk enclosure (DE-S116-B) through the miniSAS expansion interface.
Optimized features	Supports magnifying the video of VCA search on the local interface	On the local interface, user can magnify the video of VCA search in tile mode by double-clicking the video or clicking the full-screen button on the right window. The magnified window plays the video on the left, and displays the event details and object properties on the right. The video cannot be magnified if the search results are shown in list mode.
	Optimized default alarm policy of NVR after access IPC	For detection switch: ● For face detection, cross line detection, intrusion detection, enter area, leave area, ultra motion detection (UMD), elevator entrance detection and high-rise littering, their enabled/disabled status is based on IPC configuration if the IPC is connected for the first time, otherwise it is based on NVR. A prompt will be displayed if their enabled/disabled status is different on IPC and NVR. ● Motion detection is enabled/disabled based on IPC configuration if the IPC is connected via the private protocol, otherwise it is disabled by default if the IPC is connected via other protocols.

Item	Feature	Description
		● Human body detection and people counting are enabled/disabled based on IPC configuration.
		● Based on NVR configuration, video loss, audio detection and tempering detection are disabled by default.
		For detection rules:
		● The detection rules of certain functions are based on IPC configuration, including face detection, cross line detection, intrusion detection, enter area, leave area, elevator entrance detection, high-rise littering, motion detection, audio detection, tempering detection and people counting.
		● The detection rules of UMD are based on NVR configuration if the connected IPC supports motion detection, and based on IPC configuration if the connected IPC supports UMD.
		● Video loss does not support detection rule configuration.
		For arming schedule:
		Based on NVR configuration, all detection functions adopt 24/7 arming schedule by default for the first configuration. The arming schedule of smart intrusion prevention, UMD, motion detection, human body detection, elevator entrance detection and people counting will be synced to the IPC.
		For trigger actions:
		For cross line detection, intrusion detection, enter area, leave area, UMD, elevator entrance detection, and alarm sound/light of human body detection, the trigger actions are based on IPC configuration. The trigger actions of other functions are based on NVR configuration.
	Improved layout of setup on the Web interface	The **Disk** menu is changed to **Storage**.
		Deleted the **Schedule** tab, and **Recording Schedule** and **Snapshot Schedule** tabs are moved to the **Storage** menu.
		Motion Detection, **Tampering Detection**, **Human Body Detection**, **Video Loss** and **Audio Detection** tabs are moved from the **Camera** menu to **Alarm**.
		The order of the **Network Info** tab on the **Maintenance** menu is adjusted to the first.
	Supports copying capture mode to other camera(s)	On the **Encoding** page, the capture mode is added on the copy page and can be copied to other camera(s).
		The cameras that connect to the NVR via the Onvif, GB28181 and custom protocol do not support this feature.
	Optimized the usability of VCA functions	● Optimized the prompt when the face functions are enabled/disabled.
		● On the Web interface, the avatar placeholder is added to replace a blank face image on the **Add Face Info** page.
		● When a face image is imported, the file name of the image is used as the name of the face list by default.
		● Supports batch importing face images by folder, and the name of image file will be the person's name in the library by default.
		● The face library supports uploading JPG/JPEG images with case-insensitive filename extensions.
		● User can select one or multiple face images to copy to other face libraries.
		● The **Face List** page displays the total number of faces in the face library and the VCA search page shows the total number of search results at the bottom.
	Supports setting the validity period for license plates in the plate library	NVR supports setting a validity period for license plates in the plate library.
		On the **Plate List** page (**VCA** > **VCA Search** > **Vehicle Control** > **Plate List**), the validity period can be configured when a plate is added or

Item	Feature	Description
		modified. The plate will be permanently valid if the validity period is not configured. The validity period of the plate can be only set manually on the interface, and does not support import and export.
	Supports NVR local upgrade via EZCloud	After the NVR is connected to EZCloud, user can access the Web interface of NVR from EZCloud and upgrade the NVR and the connected IPCs by uploading an upgrade package. Make sure that at least one hard disk is available on the NVR for local upgrade.
	The camera name is added in the exported people counting report	The camera name is added in the exported report from the **People Counting Report** page of VCA search.
	Adds the alarm type in the body of the alarm email	The alarm type is added in the alarm-triggered email from the NVR.
	The Web interface can load service without plug-in installed	Supports V3.0 plug-in. The Web interface can load service even if the plug-in is not installed. User can drag the scroll bar of image parameters on the live view window to adjust the image splicing distance of binocular wide angle camera. Except for the multi-video live view and playback that require the plug-in, the rest functions can be used normally. User can normally import and export after the plug-in is installed.
	An editing button overlays on the preview window when the password of the camera is wrong	If the username or password input for an IPC is incorrect, the live view window will show the cause and a button, and user can click the button to modify the username or password.
	An editing button overlays on the preview window when no resource is provided for preview	If there is no resource for preview on the local interface, the live view will display a message to prompt user to adjust video parameters, and an editing button. User can click the button to decrease the resolution on the **Encoding** page.
	Optimized the prompt when cameras are sorted	After the cameras are sorted, a message will alert user that the recordings corresponding to the channel ID will be changed.
Deleted features	Deleted **Vehicle Search** and **Behavior Search** tabs of the **VCA Search** menu	See "Improved layout of VCA search" for details.
	Deleted **Face Recognition**, **Vehicle Recognition** and **Perimeter** tabs of **Smart Display Configuration** page	**Face Recognition**, **Vehicle Recognition** and **Perimeter** tabs are moved to the **Alarm Subscription** tab. See "Improved layout of smart display configuration" for details.
	Deleted **Send Email** under conventional actions of the **Trigger Actions** page	See "NVR supports sending an email with alarm information to the specified email address(es) when an alarm occurs" for details.
	Deleted the motion detection alarm icon that overlays on the preview window of the local interface	On the local interface, appears on the preview window when the NVR receives an alarm from a camera
	Deleted the **Schedule** tab of the **Camera** menu	Deleted the **Schedule** tab, please see "Improved layout of setup on the Web interface" for details.

Table 12 NVR-B5170.36.38.230411 Feature Changes

Item	Feature	Description
Newly added features		
Improved features	Optimized UMD configuration	Moved UMD configuration from <VCA Config> to<Motion> Interface, and the Motion and UMD configuration pages are combined
		There are Motion and Ultra Motion modes, and only one can be turned on at the same time.
		After the front-end UMD camera is connected, NVR supports drawing areas, configures sound and light alarm linkage, and configures targets (motor vehicles, non-motor vehicles, pedestrians) in NVR side
		UMD detection is divided into front-end analysis and back-end analysis, if NVR supports back-end analysis such as (NVR302-E2-IQ), NVR Side Analysis highlighting, if the camera supports UMD analysis, Camera Side Analysis highlights after access
		UMD position in playback interface is moved from the VCA to Motion
Deleted features	Deleted the **UMD** tab of the **VCA Config** menu	UMD and motion detection are merged, and can be selected as two motion detection modes. For details, please refer to "Optimized UMD configuration".

Table 13 NVR-B5170.36.28.230112 Feature Changes

Item	Feature	Description
Newly added features	Supports front-end UMD	Adapted to IPCs that support UMD (Ultra Motion Detection), which can recognize object types, and distinguish motor vehicles, non-motor vehicles and pedestrians. NVR supports UMD configuration, VCA search, event playback, and storage of alarm information and snapshots.
Improved features		
Deleted features		

Table 14 NVR-B5170.36.27.230105 Feature Changes

Item	Feature	Description
Newly added features	Supports dual-sensor IPCs	Supports connecting dual-sensor cameras and can display videos in proportional mode or wide mode (32:9 aspect ratio).
Improved features		
Deleted features		

Table 15 NVR-B5170.36.18.221215 Feature Changes

Item	Feature	Description
Newly added features	Supports smart PT cameras	Supports connecting smart PT cameras, and supports functions including live view, patrol, recording storage, playback,

		configuration, alarm reception (motion detection, human body detection, abnormal audio detection, automatic tracking), alarm storage and searching.
	Supports IPC monostable alarm output	For camera alarm output (D>), user can set alarm duration to Custom or Maximum on the NVR. When the Custom option is enabled on the NVR, the relay mode on the camera is displayed as Monostable.
	Supports continuously track	NVR now allows user to configure continuously track for front-end IPCs. This feature is configurable only if the IPC supports auto tracking. If supported, user can select continuously track or customize tracking duration for the IPC.
	Work with IPC to lift barrier	Added the "let through" action on the **Vehicle Monitoring** page and can trigger the camera to lift the barrier automatically when a plate match alarm occurs. User can also lift the barrier manually on the **Manual** page.
	Adapted to multi-channel cameras	Supports connecting dual-channel cameras, and allows user to configure and receive alarms of motion detection, face detection and smart intrusion prevention for multi-channel cameras, configure privacy mask, and search people counting statistics of multi-channel cameras.
	Optimized people present alarm UI	Supports counting people present for specified camera(s), reporting critical/major/minor alarms according to the number of people present, and triggering the corresponding actions if configured. (Configuration page: 1、4 scenes are available. Allows user to set scene name, alarm thresholds, arming schedule, and alarm-triggered actions for each scene separately, and view the relevant rules while configuring channels. 2、Allows user to choose to reset the number of people present automatically or manually. Both local and web clients support people present alarm configuration.) The people flow counting on **Smart Preview** page now displays real-time people flow statistics including the number of people coming in/out/more allowed/present; The normal/slightly/moderately/heavily crowded alarms are displayed with different colors. When user changes the scene on the preview page, the corresponding statistics will also be changed.
Improved features	Supports configuring alarm sound & light for IPCs that support smart intrusion prevention	User can configure front-end alarm sound & light for IPCs that support smart intrusion prevention. The configuration items are displayed only when the IPC supports alarm sound & light, including alarm sound (turn on/off, arming schedule, audio, play count), and alarm light (turn on/off, arming schedule, blink time).
	Configuring arming schedule of motion detection for IPCs	User can configure arming schedule of motion detection for IPCs on the NVR, and then IPCs report alarms according to the arming schedule.
	Optimized the display effects of smart preview and behavior search results	VCA search results: The face search results are not close-up images, but are displayed with surrounding scenes. The faces in the images are not stretched. Behavior search results: The search results for smart intrusion prevention are not close-up images, but are displayed with surrounding scenes; user can double-click an image to maximize it. Smart preview: Face and perimeter images are not stretched; The images on the left are the same as the image details on the right.

	Improved the size limit of face library images	Allows user to upload face library images up to 4M.
	Channel name is displayed when user selects channel on the **VCA Search** page	The **VCA Search** page on the Web client now allows user to view channel ID and channel name to quickly find the desired channel.
	Supports copying storage mode to other channels	The storage mode parameter is added on the **Copy** page of encoding settings, so user can copy storage mode to other channels.
	Relocated custom route configuration	Custom route configuration is moved to the **Network** tab on the web client.
Deleted features	Deleted the relay mode configuration item	Deleted relay mode on the **Alarm Output** page, so monostable and bistable cannot be selected. Custom alarm duration corresponds to monostable mode, and maximum alarm duration corresponds to bistable mode.

Table 16 NVR-B5170.35.27.221010 Feature Changes

Item	Feature	Description
Newly added features	Adapted to IPCs that support box-dome linkage	Adapted to IPCs that support box-dome linkage. Allows user to select a linkage mode to view live videos in multi-sensor mode. ● Drag to zoom: The dome camera can rotate to and zoom in on the area that user specified on the image of the box camera. ● Click linkage: Click an object on the image of the box camera to rotate the dome camera to the specified object. ● Manual tracking: The dome camera can track the object that user specified on the image of the box camera. This function requires user to enable smart intrusion prevention on the NVR side, and configure panoramic linkage on the IPC side.
	Supports thermal imaging cameras	Supports connecting thermal imaging cameras. Supports configuring fire detection, temperature detection, and smoking detection. Allows user to view live videos in multi-sensor mode. Supports VCA search, event playback, and storage of alarm information and snapshots. NVR can now receive temperature data from thermal imaging cameras and overlay temperatures on live video on the local user interface. In thermal camera-NVR-APP networking mode, app can receive thermal imaging and smart intrusion prevention alarms and images from NVR. In thermal camera-NVR-VMS networking mode, VMS can receive thermal imaging and smart intrusion prevention alarms and images from NVR.
	Adapted to front-end alarm light and sound linkage of human body detection	Allows user to configure alarm sound and light for human body detection alarms, including turning on/off alarm light and sound and other configurations.
	Supports one-click disarming by switch	Allows user to disarm all linkage actions of the NVR, and alarm sound & light of the IPC by the first alarm input switch on the NVR.
Improved	Displaying POS information on the	All overseas models support POS function. POS control center can access NVR via network, and the NVR can store data and

features	local interface	overlay transaction data on live view and playback images.
	Added detection area for front-end tripwire people counting	Supports drawing a detection area for tripwire people counting.
	Supports downloading SD videos on the web and local interface	The web and local interface allow user to download videos in HD or SD mode.
	Added day/night mode under alarm sound & light configuration in smart intrusion prevention	Day/night mode is added under the alarm sound & light configuration of smart intrusion prevention. The configuration item is displayed if it is supported by the IPC.
Deleted features		

Table 17 NVR-B5170.1.5.220727 Feature Changes

Item	Feature	Description
Newly added features Improved features	AAC audio decoding	Supports decoding AAC bit streams from IPC for live view, playback, and two-way audio on the local and web interfaces to meet demands for higher audio quality.
	Persistent WebSocket connections with upper platform	NVR can initiate WebSocket connections over SSL/TLS with an upper platform (EZCloud or third-party platform) to achieve bi-directional signaling communication based on the WSS.
	WEB plugin 3.0	The new Web plugin supports a variety of new browser versions and provides better performance in supporting multi-channel and high-resolutions.
	Front-end people flow counting and crowd density monitoring	Supports the connection of IPCs capable of people flow counting and crowd density monitoring, supports the configuration of people flow counting and crowd density monitoring, the search and export of people flow counting statistics.
	Smart intrusion prevention camera	Supports connecting deep learning smart intrusion prevention IPCs, which feature intrusion detection, cross line detection, enter area and leave area detection.
	One-key disarm linkage	Allows user to conveniently disarm one or multiple linkage actions of the NVR or its IPCs by a set schedule or period.
	Control wiper via network keyboard	Supports using a network keyboard to control wiper.
	Low battery notification	Prompts users to replace the button battery and reset the time if the system detects incorrect time after the user logs in.
	Optimized audio configuration	Added the **Audio Configuration** tab to configure all audio parameters of IPCs. (The configurable audio input and output parameters include enable/disable audio input, access mode, input volume, audio compression, sampling rate, and audio output. The supported configuration items may vary with IPCs.)
	Optimized alarm sound and light linkage	Allows users to configure alarm sound and light of IPCs on the NVR, including arming schedule and action mechanisms. It meets the needs of users for alarm sound and light linkage in different time

		periods.
		(Users can configure alarm sound & light in the **Trigger Actions** page. The configurable parameters include start time, end time, audio, repeat, alarm light, blink time, brightness, etc.)
	Configurable audio storage	Allows users to enable/disable audio storage of each camera separately.
	Optimized network test and packet capture	Separated **Packet Capture** from the **Network Test** tab. Two addresses and multiple cameras can be detected simultaneously.
		(Allows users to perform network test by entering test address or selecting camera, test duration, and test packet size. Users can view the real-time packet loss rate or network latency in a chart, and export the results when the test ends.)
		Users can view whether the network is normal intuitively so as to troubleshoot network issues quickly, improving user experience and saving maintenance costs.
	Changed Telnet to SSH	SSH is adopted to access NVR remotely. It is disabled by default, and the secondary logon is required when enabled.
	Reporting people counting results by hours	A new report type (**Hourly**) is added on the local interface to allow users to view people counting results by hours.
	Adapted to the new encryption algorithms of IPCs	Supports SHA-256 to adapt to SHA-256 based RTSP authentication on IPC.
	Optimized smart intrusion prevention configuration on the local interface	The local interface now allows users to draw box(es) when configuring object size for smart intrusion prevention, instead of inputting manually, improving the ease of operation.
	Optimized the layout of **People Counting Report**	The **People Counting Report** is moved to the **VCA Search** tab.
	Changed *Target Type* to *Object Type*	The *Target Type* is changed to *Object Type*.
	Added the perimeter scene	A new scene (**Perimeter**) is added to allow users to select installation scenes, reducing the tedious adjustment of image parameters. This feature is only available for certain IPCs.
	Selecting all channels quickly for vehicle monitoring on the local interface	The local interface now allows users to select all channels with one click when configuring vehicle monitoring.
	Added a progress bar when importing/exporting license plates	A progress bar is added when importing/exporting license plates. Users can view the import/export quantities and progress intuitively.
	Searching face lists by modeling status, and exporting the results in batches	Allows users to search face lists by modeling status, and export the results in batches.
Improved features		
Deleted features		

4.2 Operation Change Description

None

5 Related Documents and Delivery Method

Table 18 Related Document List

Manual Name	Manual Version	Delivery
Network Video Recorders Quick Guide	V1.00	Deliver with device.

6 Version Upgrade Guidance

6.1 Precautions

- This software system includes a software program mirror (Program.bin). Before you start upgrade, please back up configuration data through the system or Web interface in case the upgrade fails.
- Maintain proper network connection and power supply during the upgrade.
- The user program file Progam.bin can not be renamed to another name, otherwise, MMI process will not be upgraded successfully.

6.2 Upgrade Procedure

The version can be upgraded through the system interface and the Web interface, both support cloud upgrade.
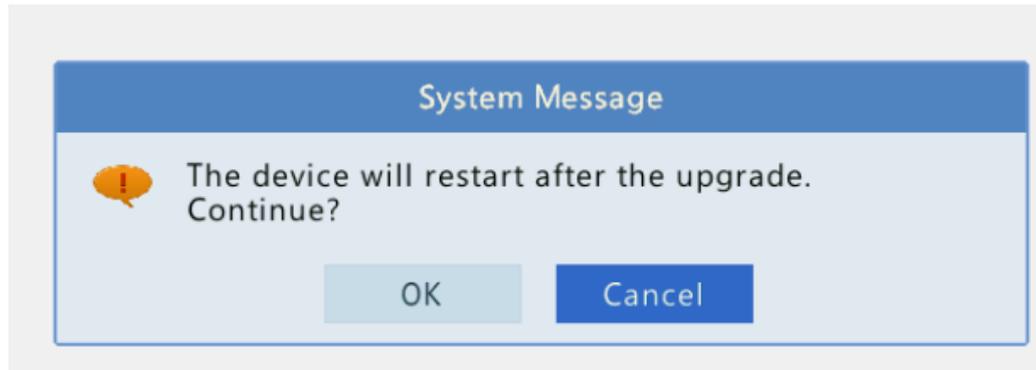
6.3 Upgrade Through the System Interface

The system interface provides two options for upgrading the system software: local upgrade using a USB drive and cloud upgrade.

1. Local upgrade

Before you start, copy the correct upgrade file to the root directory of the USB drive.

(1) Plug the USB drive into the USB interface on the NVR.

(2) Log in to the system interface as "admin".

(3) Click **Maintainence** > **System Upgrade** > **NVR Upgrade**.

(4) Choose **Local Upgrade**, select the upgrade file from the drop-down list, and then click **Upgrade**. A prompt message appears.

(5) Click **OK**.

Figure 1 Prompt Message

(6)   The NVR will restart automatically when the upgrade is completed.

2. Cloud upgrade

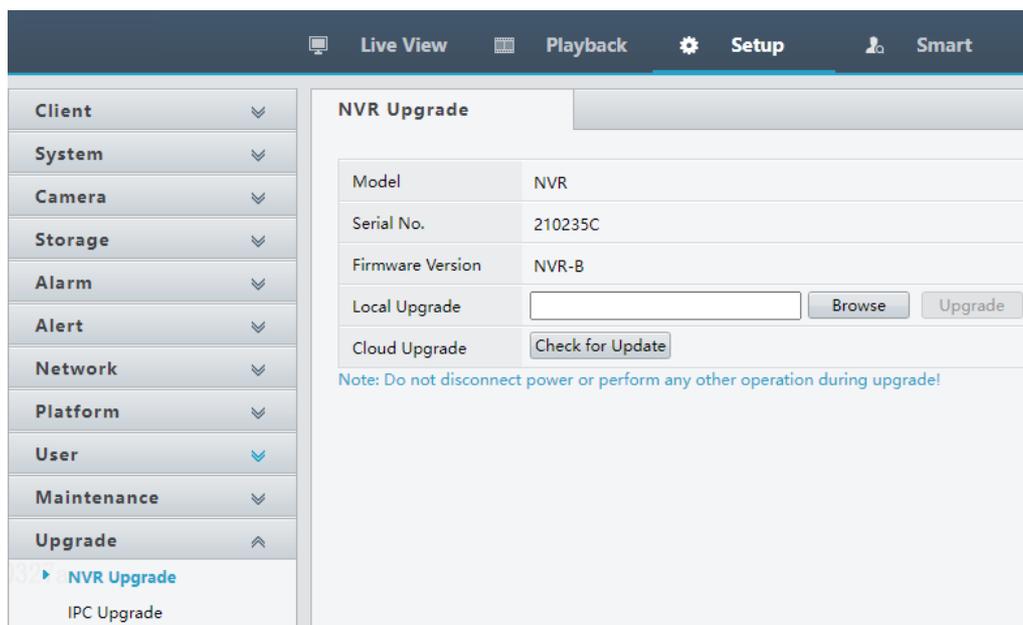Before you start, check that the NVR is correctly connected to the public network.

(1)   Click **Maintenance** > **System Upgrade** > **NVR Upgrade**, and then click **Check** to check for the latest version.

(2)   Click **Upgrade** after a newer version is detected.

6.4 Upgrade Through the Web Interface

Perform the following steps to upgrade through the Web interface:

(1)   Log in to the Web interface as "admin".
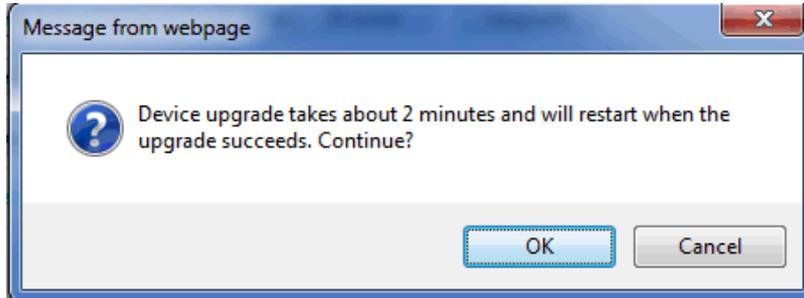
(2)   Click **Upgrade** > **NVR Upgrade**.

Figure 2 NVR Update

(3)   Click **Browse** right to the **Upgrade** field, select the **Program.bin** file to upgrade, and then click **Upgrade**.

(4) If the NVR is connected to the public network, you may also click **Check** to perform a cloud upgrade. If a newer version is detected, a prompt message will appear. Click **OK** to start upgrade.

Figure 3 Prompt Message

(5) The NVR will restart automatically when the upgrade is completed.

Version Upgrade Disclaimer

1. By setting or installing this program in any way you agree to all of the following terms and conditions. Your downloading or using the program means you acknowledge your full understanding and acceptance of the following terms and conditions. If you do not agree to any of the following terms, you shall not use the program and you must cease installing and delete the program immediately.

2. The upgrade program is only applicable to the intended regions and product models. Before upgrade or update, please read the release notes carefully to make sure the program is applicable to your region and product model. You will be fully liable and responsible for all the consequences of device abnormality and related maintenance costs caused by your improper operations.

3. Uniview owns or is legally authorized to own all rights and IPRs (Intellectual Property Rights) of the program and the supplied release notes.

4. Software upgrades are for the optimization of product functions and do not mean there is defect.

5. You must strictly follow instructions in the release notes during the upgrade process, otherwise you are responsible for the possible consequences and related maintenance costs.

6. You shall not engage in any of the following activities, otherwise you would be liable for infringement and responsible for any adverse consequences arising therefrom.

  6.1   Copy the program (exclude the reasonable and necessary copies for internal backups);

  6.2   Exclude this statement when using the program or transfer the program to any third party;

  6.3   Modify the program or its derivatives;

  6.4   Reverse engineer, decompile or disassemble this program.

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