

NVR-B5101.29.52.210512 Release Notes

Zhejiang Uniview Technologies Co., Ltd.

NVR-B5101.29.52.210512 Release Notes

Keywords: Version information, usage notes, precautions.

Abstract: This document provides information about the **NVR-B5101.29.52.210512** board software, including version information, usage notes, precautions, and features.

Acronym

| Acronym | Full Name |
|---------|------------------------|
| NVR | Network Video Recorder |

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1 Version Information

1.1 Version Number

NVR-B5101.29.52.210512

1.2 Applied Product Models

Table 1 Applied Product Models

| Product Models | Description |
|----------------|--|
| NVR516-64 | 16 slots, 64-ch, H.264/H.265 decompression, 4K ultra HD, RAID |
| NVR516-128 | 16 slots, 128-ch, H.264/H.265 decompression, 4K ultra HD, RAID |

1.3 Release History

Table 2 Released Versions

| Version No. | Basic Version No. | Released On |
|------------------------|------------------------|-------------|
| NVR-B5101.29.52.210512 | NVR-B5101.29.51.210420 | 2021-05-12 |
| NVR-B5101.29.51.210420 | NVR-B5101.29.48.210319 | 2021-04-20 |
| NVR-B5101.29.48.210319 | NVR-B5101.28.50.201120 | 2021-03-19 |
| NVR-B5101.28.50.201120 | NVR-B5101.28.45.200807 | 2020-11-20 |
| NVR-B5101.28.45.200807 | NVR-B5101.28.41.200723 | 2020-08-07 |
| NVR-B5101.28.41.200723 | NVR-B5101.28.36.200513 | 2020-07-23 |
| NVR-B5101.28.36.200513 | NVR-B5101.28.26.200319 | 2020-05-13 |
| NVR-B5101.28.26.200319 | NVR-B5101.28.20.200113 | 2020-03-19 |
| NVR-B5101.28.20.200113 | NVR-B5101.28.15.191223 | 2020-01-13 |
| NVR-B5101.28.15.191223 | NVR-B5101.27.50.191108 | 2019-12-23 |
| NVR-B5101.27.50.191108 | NVR-B5101.27.45.191015 | 2019-11-08 |
| NVR-B5101.27.45.191015 | NVR-B5101.27.40.190905 | 2019-10-15 |
| NVR-B5101.27.40.190905 | NVR-B5101.27.36.190817 | 2019-09-05 |
| NVR-B5101.27.36.190817 | NVR-B5101.27.35.190801 | 2019-08-17 |
| NVR-B5101.27.35.190801 | NVR-B5101.27.30.190712 | 2019-08-01 |
| NVR-B5101.27.30.190712 | NVR-B5101.27.25.190621 | 2019-07-12 |
| NVR-B5101.27.25.190621 | B5126P35 | 2019-06-21 |
| B5126P35 | B5126P30 | 2019-04-29 |
| B5126P30 | B5126P25 | 2019-04-02 |
| B5126P25 | B5126P23 | 2019-02-25 |

| | | |
|----------|-----------------|------------|
| B5126P23 | B5126P22 | 2018-12-26 |
| B5126P22 | B5126P11 | 2018-12-07 |
| B5126P11 | B5125P30 | 2018-10-22 |
| B5125P30 | B5125P27 | 2018-09-03 |
| B5125P27 | B5125P26 | 2018-07-26 |
| B5125P26 | B5125P22 | 2018-07-21 |
| B5125P22 | B5125P21 | 2018-07-26 |
| B5125P21 | B5125P10 | 2018-07-07 |
| B5125P10 | B5123P24 | 2018-05-22 |
| B5123P30 | B5123P24 | 2018-05-30 |
| B5123P24 | B5123P20 | 2018-04-24 |
| B5123P20 | B5122P31 | 2018-03-14 |
| B5122P31 | B5122P25 | 2017-11-28 |
| B5122P25 | B5122P10 | 2017-10-24 |
| B5122P10 | B5121P20 | 2017-08-21 |
| B5121P40 | B5121P20 | 2017-10-25 |
| B5121P20 | B5121P15 | 2017-06-14 |
| B5121P15 | B5119P76 | 2017-05-24 |
| B5119P76 | B5119P75 | 2017-05-03 |
| B5119P75 | B5119P65 | 2017-04-11 |
| B5119P65 | B5119P60 | 2017-02-20 |
| B5119P60 | B5117P45 | 2017-01-16 |
| B5117P45 | B5117P35 | 2016-11-18 |
| B5117P35 | B5117P29 | 2016-08-04 |
| B5117P29 | B5117P22 | 2016-07-19 |
| B5117P22 | Initial release | 2016-05-05 |

2 Usage Notes

None.

3 Software Features

Table 3 Software Features

| Service | Feature |
|--------------------------|---|
| Audio and video decoding | H.264/H.265 video compression, with a maximum of 1080P resolution and 8Mbps bit rate. |
| Data storage | Local storage of recordings in hard disk(s). |

| Service | Feature |
|----------------------|---|
| Web-based management | Web-based user interface for device configuration and management. |

4 Version Change Description

4.1 Feature Change Description

Table 4 NVR-B5101.29.48.210319 Feature Changes

| Item | Feature | Description |
|----------------------|---|--|
| Newly added features | Remote access of IPC | Support remote access to IPC over WAN on the NVR's Web interface. |
| | Change IPC password | Support changing the password of IPC in batches. Support changing the password of IPC when changing the password of NVR. |
| | USB wireless network adapter | Support connecting USB wireless network adapter. |
| | One-click collect diagnosis info | Support exporting NVR diagnosis information, IPC diagnosis information and operation logs with one click. |
| | ISW Management | Support ISW Management. |
| | Perimeter protection camera | Supports connecting deep learning perimeter protection IPCs, which feature intrusion detection, cross line detection, enter area and leave area detection. |
| | Supports front-end Smart Intrusion Prevention (SIP) | Supports connection of SIP-enabled IPC, supports configuration, smart preview and search. |
| | Arming scheduling for SIP and human body detection | Supports synchronizing arming schedules for smart intrusion prevention and human body detection to IPC. |
| | On-screen watermark descriptions | Added watermark descriptions on the screen. |
| Improved features | Playback thumbnail | Support displaying playback thumbnail when hovering the mouse cursor over the timeline for a certain time in playback page. |
| | Playback operation | Support quick skipping to the earliest recording in playback page. |
| | OSD | Add camera ID in live view page. |
| | FTP username | The length of FTP username changes from 15 characters to 64 characters. |
| | Ease of use of intelligent functions | Support saving preview mode after device is restarted. |
| | Backup file name | The file name of recording backup exported on the local interface are same with that on the Web interface. |
| | Multi-NVR networking | In a network environment with multiple NVRs, add the status of IPC being managed by other NVR. |
| | Improved VIID upstream performance | The speed of image uploading via VIID reaches 60 images per second. |
| | 256 bytes for RTSP | Supports 256-byte RTSP URL. |
| Deleted features | Mask detection | Support alarm and configuration of mask detection cameras. |
| | LPR | Add license plate recognition display page. |

| Item | Feature | Description |
|------|--------------------------|--|
| | Face recognition | Support adding face snapshots to face library. |
| | LPR | Whitelist/blacklist vehicle plate recognition. |
| | GA/T1400 | Upload face & plate snapshots to VMS. |
| | Video&Image (Phase 1) DB | Vehicle license plate recognition and search. |

Table 5 NVR-B5101.28.26.200319 Feature Changes

| Item | Feature | Description |
|----------------------|----------------|--|
| Newly added features | Mask detection | Support alarm and configuration of mask detection cameras. |
| Improved features | None | None. |
| Deleted features | None | None. |

Table 6 NVR-B5101.28.15.191223 Feature Changes

| Item | Feature | Description |
|----------------------|--|---|
| Newly added features | Separate camera name and it's OSD | Support syncing camera name (up to 40 characters) to its OSD name. The sync function is enabled by default. |
| | Improved error message in preview page | More detailed messages such as incorrect password and network error are displayed in preview page, so that user experience improved. |
| | Support disabling third stream audio | Support disabling third stream audio and copying audio settings to multiple channels. |
| | Connect video doorbell | Support video doorbell, which, when connected to the app via an NVR, doorbell calling alarm can be received both on the NVR and the app. |
| Improved features | Improved playback | Support setting skip interval for forwarding and rewinding playback. |
| | Improved storage settings | Support encoding settings of third stream, and more Storage Mode options, so that solve the problem that camera with no third stream cannot play back in SD mode. |
| | Save password | Support saving password. |
| Deleted features | None | None. |

Table 7 NVR-B5101.27.25.190621 Feature Changes

| Item | Feature | Description |
|----------------------|-----------------------------|---|
| Newly added features | H.265 | Auto switch to H.265 when first connected is enabled by default. |
| | UNP client software upgrade | Upgrade UNP client software to SoftEther VPN. |
| | Live view without plug-in | Live view is available without plug-in on the Web interface. |
| | LPR | Add license plate recognition display page. |
| | New local interface | New local GUI; New interaction design in wizard, channel configuration, playback and VCA. |

| Item | Feature | Description |
|-------------------|--|---|
| Improved features | Retrieve password | Retrieve password by email and mobile client. |
| | Preset patrol | Up to 32 presets are allowed for one preset patrol. |
| | Playback in main stream | Playback in standard definition automatically switches to main stream for a maximized window. |
| | Separate permissions | Separate channel live view and audio permissions. |
| | Alarm configuration | Add human body detection. |
| | Improve switching performance when maximizing/restoring window | For connected Topsee cameras, live video starts quickly when maximizing or restoring window. |
| | Face recognition | Support adding face snapshots to face library. |
| Deleted features | None | None. |

Table 8 B5126P23 Feature Changes

| Item | Feature | Description |
|----------------------|---------|-------------------------|
| Newly added features | None | None |
| Improved features | None | None |
| Deleted features | 3G/4G | Support 3G/4G SIM card. |

Table 9 B5126P11 Feature Changes

| Item | Feature | Description |
|----------------------|----------------------------------|--|
| Newly added features | Heat map | Support heatmap statistics and export. |
| | GA/T1400 | Upload face & plate snapshots to VMS. |
| | Add device without account | Scan to add NVR on app without cloud account. |
| | Onvif | Support Profile S. |
| | Pattern unlock | Support drawing pattern to unlock. |
| | Alarm push notification | Push alarm notification traversing NAT. |
| | Web maintenance | Add net detection & network flow. |
| | Auto add IPC | Automatic search and add IPC for 1-SATA NVR with zero configuration. |
| | GDPR | Add GDPR privacy statement. |
| Improved features | Improved PTZ presets | Configurable PTZ preset name. |
| | Improved live view startup speed | IPC live view starts up quickly. |
| Deleted features | None | None. |

Table 10 B5125P10 Feature Changes

| Item | Feature | Description |
|-------------------|---------------------------|--|
| New features | Video&Image DB (Phase 1) | Vehicle license plate recognition and search. |
| | Alarm report | Alarm report in non-subscribe mode, with configuration added on local interface. |
| | Multicast | Add uplink RTSP multicast function |
| Improved features | U-Code | U-Code configuration for sub and third streams. |
| | VCA alarm | Added object left behind and removal alarms |
| | APP collaboration | Improves image display speed on APP. |
| | Playback | Supports 32x playback on VMS-B200 |
| | CDN (RTMP) | Added channel-based CDN configuration |
| | Prompt to change password | Added a message prompting user to change temporary password |
| | Device connection | Supports adding channels in batch via RTSP |
| Deleted features | None | None |

Table 11 B5123P20 Feature Changes

| Item | Feature | Description |
|-------------------|-------------------------------------|--|
| New features | Add IPC across Internet | Add IPCs to the NVR across the Internet. |
| | SNMP | System time obtainable. |
| | Decoding card | Use decoding card for image stitching on multiple screens. |
| Improved features | Improved diagnostic info collection | Support the backup of IPC logs on NVR. |
| | Alert configuration | Added two alert types: array degrade and array damaged. |
| | Alarm window | Displays alarm status with two tabs and added multiple alarm types. |
| | Web recording download | Include recording start and end times in filenames for easier differentiation. |
| | Maintenance info collection | Added network bandwidth statistics on the Web. |
| | Decoding card | Play third-party H.265 video. |
| Deleted features | None | None |

Table 12 B5122P10 Feature Changes

| Item | Feature | Description |
|--------------|--|--|
| New features | USB connected burner | Connect to an external USB burner to burn recordings to a disc. Supported by some models only. |
| | Fisheye (phase III) | Add dewarping function for 5 Series and marking function for 3 Series. |
| | Connection to new 4K fisheye camera models | Connectable with certain new models of 4K fisheye cameras and supports back-end dewarping. |
| Improved | TLS/SSL | Achieves complete SSL/TLS encryption. |

| Item | Feature | Description |
|------------------|--------------------------|---|
| features | Maintenance storage info | Save space by saving maintenance logs to hard disks. |
| | IPC upgrade by cloud | Adds a Check button (to check for update) and displays latest version info. |
| | 3G/4G | Adds custom mode for access points. |
| | Playback | Allows user to choose third stream for playback. |
| | Alarm triggered preview | Supports multi-window display for alarm-triggered preview. |
| | N+1 function | Supports IPC connected by RTSP. |
| | Parameter configuration | Increases image quality levels from 6 to 9. |
| | Password policy | Added an enable/disable setting and changed some policy. |
| Deleted features | None | None |

Table 13 B5121P15 Feature Changes

| Item | Feature | Description |
|-------------------|---|--|
| New features | Zoom In | Supports zooming in on certain area of certain camera. |
| | Thumbnail View | The corresponding thumbnail view appears by clicking the progress bar. |
| | Snapshot Playback | Supports playback of snapshots stored on device. |
| | Snapshot Preview | Supports preview of selected snapshots. |
| | Smart Search | Supports preview and playing of VCA recordings. |
| | High Temperature Alarm | Triggers alarm if the temperature of CPU or motherboard is too high. |
| | Defocus Detection | Determines whether the camera is defocused, and if so triggers alarm. |
| | Scene Change | Determines whether the scene is changed, and if so triggers alarm. |
| | Auto Tracking | Supports auto tracking of moving objects with IP cameras supporting this function. |
| | People Counting of Multiple Cameras | Displays people counting data of multiple cameras together. |
| | People Counting OSD | Displays people counting data by OSD in real time. |
| | Sort Camera | Supports changing sequence of selected cameras in camera list. |
| Improved features | Watermark | Supports custom encryption of video data with compatible IP cameras and EZPlayer, to avoid video info deletion and modification. |
| | Optimized H.265 compatibility | Supports third-party H.265 IP camera connecting to Uniview NVR through ONVIF. |
| | Log Export Format | The default format of exported logs is changed from TXT to CSV. |
| | Auto-Delete File(s) | Adds auto-delete file(s) configuration on Web client. |
| | Admin Management | Supports admin to force guest offline. |
| | Diagnostic Information | Adds basic information of IP camera to exported diagnostic information. |
| Network Setting | Supports auto-completion of subnet mask when setting network address. | |

| Item | Feature | Description |
|------------------|------------------------------------|--|
| | Quick Match for Camera List | Supports input selection and fuzzy matching for camera list. |
| | Professional Surveillance Keyboard | 1. Supports selecting camera and date for playback. 2. Supports patrol and route. |
| | eSATA | Supports backup and storage on NVR308-16E, NVR308-32E, NVR308-64E, NVR308-32R, NVR308-64R, NVR516-64 and NVR516-128. |
| Deleted features | None | None |

Table 14 B5119P60 Feature Changes

| Item | Feature | Description |
|-------------------|---|--|
| New features | U-Code | U-Code is a patented technology of Uniview that accomplishes higher compression efficiency than H.264/H.265. |
| | NAS | Supports NAS storage device. |
| | Auto guard | Enables the PTZ camera to operate automatically as configured if no operation is performed during a certain time period. This function can avoid situations where the camera is left to monitor an incorrect scene by user's negligence. |
| | Multicast | Makes live view possible even when the number of connecting Web clients exceeds the limit the NVR can accommodate. |
| | USB Device window | Automatically displays the window when a USB storage device is plugged in during device startup or in preview status. The window can also be opened by clicking the USB icon on the screen toolbar. |
| | VCA | Work with smart IPC to achieve VCA functions (smart detection and smart search), enhanced playback by event. |
| | RTSP-based connection to IPC | Adds IPC by RTSP for live view and playback (IPC configuration not supported). |
| | RTSP URL format on screen | Displays RTSP URL format and a description, and users can view live video from a channel of the NVR by visiting the corresponding URL using an RTSP-enabled device. |
| | IPv6 | Supports IPv6 and offers three options to set an IPv6 address: Manual, DHCP, Router Advertisement. |
| Improved features | Integrated port | Integrates multiple ports (HTTP port, ONVIF port, Media port, and SDK port) into one HTTP port. |
| | Uniview logo | Displays Uniview logo in idle preview windows. This feature is only available to Uniview version. |
| | Auto switch to | Automatically switches to H.265 and U-Code when connected by Uniview IPC and sends default bitrate settings to IPC. |
| | Copy video compression and U-Code settings | Allows user to copy video compression and U-Code settings and quickly apply them to other IPCs. |
| | Draw schedules | Allows users to make recording and snapshot schedules by drawing. |
| | Instant playback | Instant playback time is now configurable. |
| | Mouse operation | Allows user to adjust the moving speed of mouse pointer. |
| | IPC upgrade | Upgrade a batch of IPCs by cloud or USB storage device. |
| Preview | Live view window's yellow borders disappear automatically in 20 seconds if no operation is performed. | |

| Item | Feature | Description |
|------------------|--|---|
| | Snapshot | The window borders flash white when taking a snapshot during live view or playback. |
| | Resolution | Restore default resolution by pressing and holding the scroll wheel for at least 3 seconds. |
| | DHCP | DHCP is enabled by default for international versions. |
| | Playback by tag | Allows playback by tag on Web client. |
| | Quick view of serial number | View the device's serial number by double-clicking the lower left corner of the login dialog box as admin. |
| | Improved encoding configuration | Automatically refreshes encoding configurations; automatically changes bit rate as the user changes resolution and frame rate. |
| | One-click cancellation of binding to EZCloud | Allows the user to cancel binding to EZCloud account by clicking the Delete button without visiting the EZCloud website. |
| | Enhanced ease of use | Displays device operation time, camera offline cause, a system message when the USB storage device is unplugged, and added the Camera Name column under Advanced. |
| | Enhanced corridor mode | Added 4/9/10/12/16 corridor modes on the system interface. |
| | Added OSD configurations | Added font color and size options for OSD configuration. |
| | Optimized playback | Supports reverse playback; max. 256x playback speed on the system interface, and 16x playback speed on the web interface; with apparently improved fluency at low playback speed. |
| | Optimized alarm-triggered preview | Changes alarm-triggered preview from "sequence display three times" to "display from alarm is reported till alarm is cleared." |
| Deleted features | None | None |

Table 15 B5117P45 Feature Changes

| Item | Feature | Description |
|------------------|---------------|---------------------------------|
| New feature | Decoding card | The NVR supports decoding card. |
| Improved feature | None | None |
| Deleted feature | None | None |

4.2 Operation Change Description

None.

5 Related Documents and Delivery Method

Table 16 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.

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

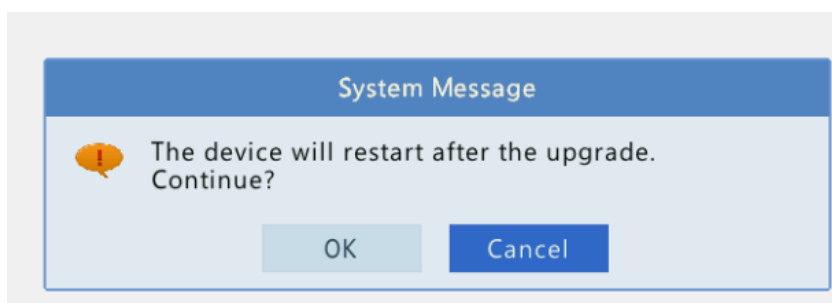
The system interface provides two options for upgrading the system software: local upgrade using a USB drive and cloud upgrade.

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 **Maintain > Upgrade**.
- (4) Click **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.

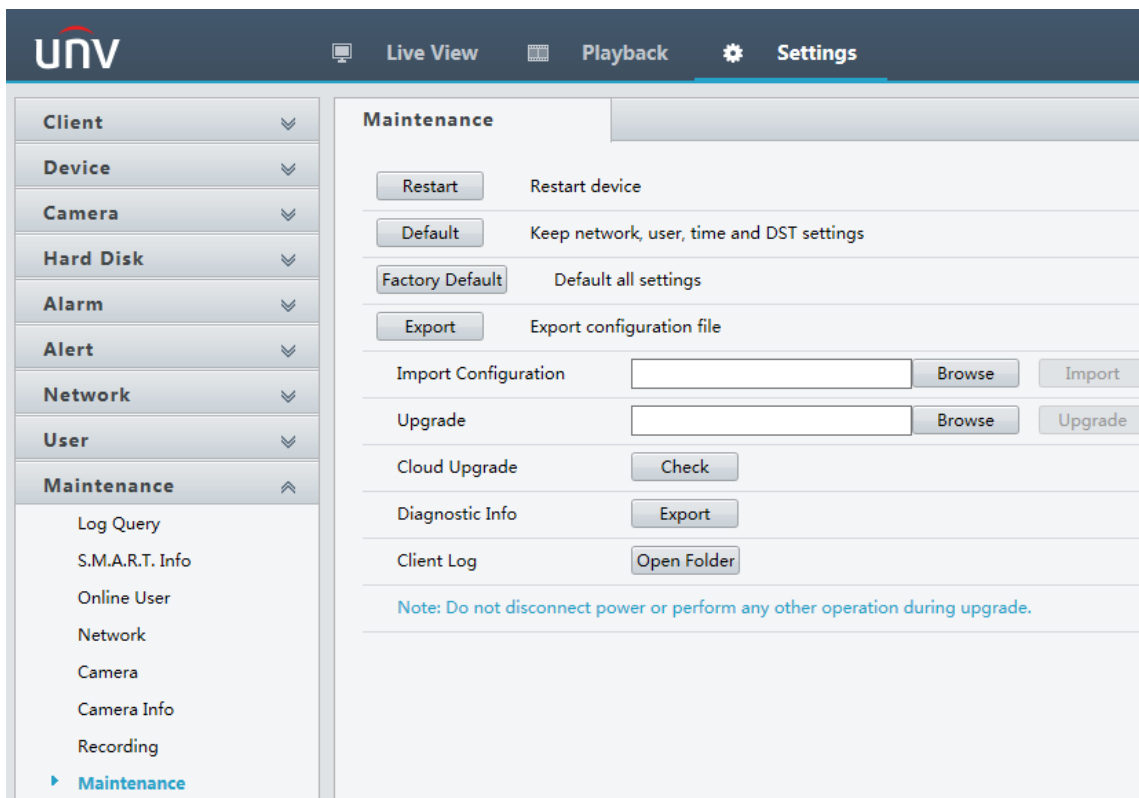
- (1) Click **Maintain > Upgrade**, and then click **Check** to check for the latest version.
- (2) Click **Upgrade** after a newer version is detected.

6.4 Upgrade Through the Web Interface

Perform the following steps to upgrade through the Web interface:

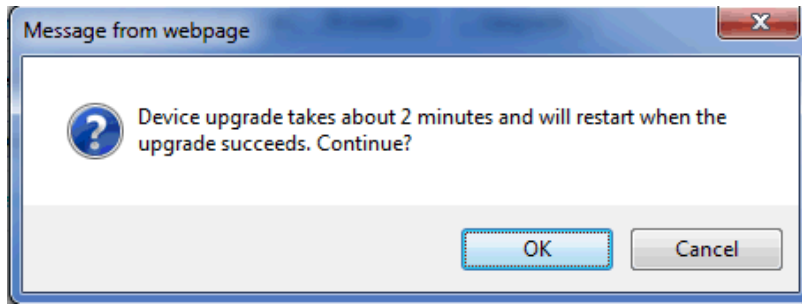
- (1) Log in to the Web interface as “admin”.
- (2) Click **Settings > Maintenance > Maintenance**.

Figure 2 System Maintenance



- (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.

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