Milesight Release Note For

OpenVision Series Network Camera

Firmware Version: OV_63.8.0.6_r3-NX

Applicable Model: OpenVision Series Camera

MS-C5366-RFIPKG1/ MS-C8266-RFIPKG1

MS-C5372-RFIPKG1/ MS-C8272-RFIPKG1

MS-C8477-HPKG1

Release Date: September 10th, 2026

1. Overview

Milesight offers a variety of sensor products designed to capture valuable data. By innovatively applying AI, 5G, and IoT technologies, Milesight brings significant impact to various applications. The company manufactures products with exceptional image quality, unparalleled flexibility, and reliability for the global market. Milesight is pleased to announce the release of the new firmware version OV_63.8.0.6_r3-NX for cameras.
This release introduces new AI features and algorithm enhancements, along with significant improvements in security compliance and compatibility. Several known issues have also been resolved to further improve overall performance, system stability, and user experience.

2. Firmware Version Download

To download the latest firmware version, please click the following link:
Firmware Download|The Latest Innovation|Milesight

3. What's New

3.1 Removed Features

To ensure seamless integration with NX platform capabilities and optimize system resource allocation, the following features have been removed in this release. Users are encouraged to utilize equivalent NX-native functionalities for enhanced performance and unified management.

- ✓ NAS storage
- ✓ Single camera and multi camera modes in VMS Edge Mode
- ✓ AI event-triggered camera recording

3.2 Performance Optimization

Without AI features enabled, the recommended number of cameras that each embedded NX Server can host is as follows:

Model	Recommended Maximum Cameras
MS-C5366-RFIPKG1, MS-C5372-RFIPKG1, MS-C8266-RFIPKG1, MS-C8272-RFIPKG1	3
MS-C8477-HPKG1	2

3.3 New AI Features and Algorithm Enhancements

3.3.1 Upgraded VCA Algorithm

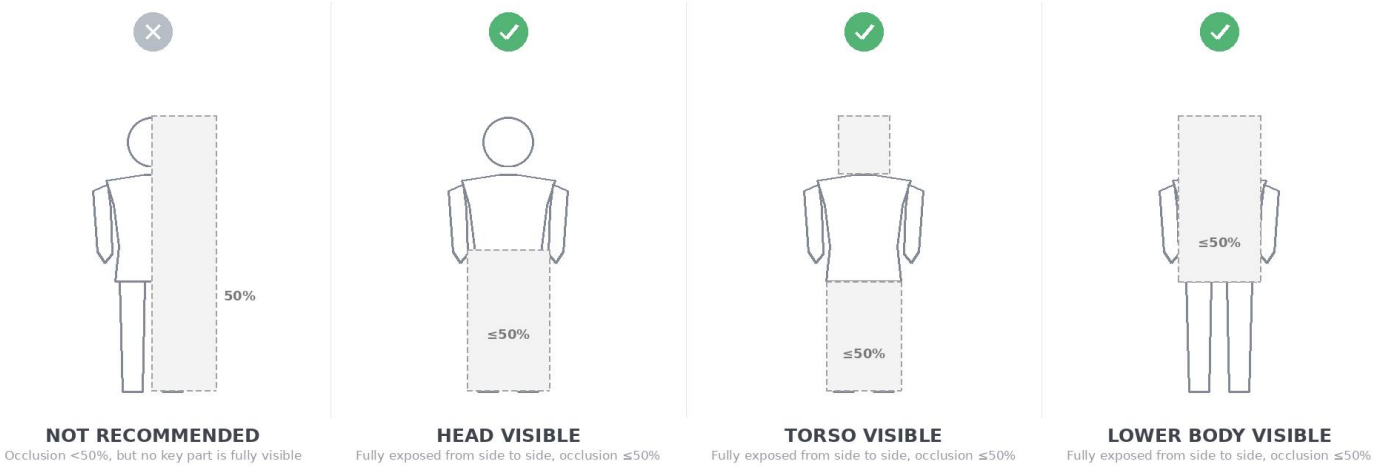
The VCA algorithm has been upgraded with comprehensive optimizations across multiple scenarios:

(1) Enhanced Animal Filter:

Filters out false alarms caused by common animals such as cats, dogs, raccoons, deer, coyotes, and foxes. Ideal for regions in Europe and North America where animal activity frequently causes false alerts.

(2) Improved Human Detection Accuracy:

Human detection is now enhanced in situations where more than 50% of the entire body (including face, torso, and legs) is visible from side to side.

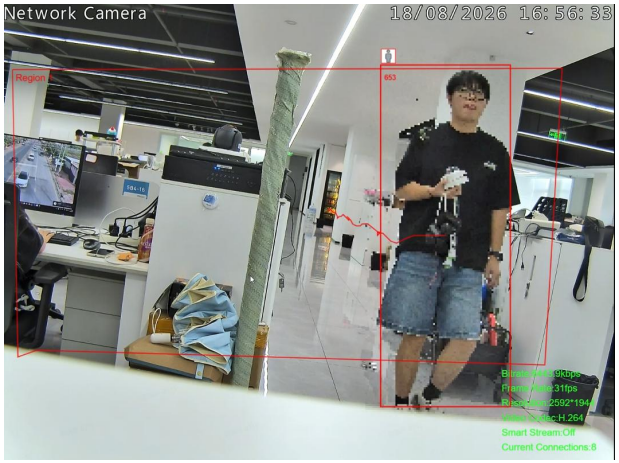


(3) Special Vehicle Detection: Added support for the following vehicle types (as classified below).

Object Type	Subtype
Forklift	Counterbalance Forklift
Excavator	Crawler Excavator / Mini Excavator / Excavator with Hydraulic Breaker
Agricultural Machinery	Tractor / Combine Harvester

(4) Added Object Motion Trajectory

The camera can now visualize the movement path of detected objects by displaying trajectory lines that trace the center point of the tracking bounding box as the object moves through the scene. This enhancement provides intuitive visual evidence of object movement patterns, making it easier to analyze behavior and reconstruct events.



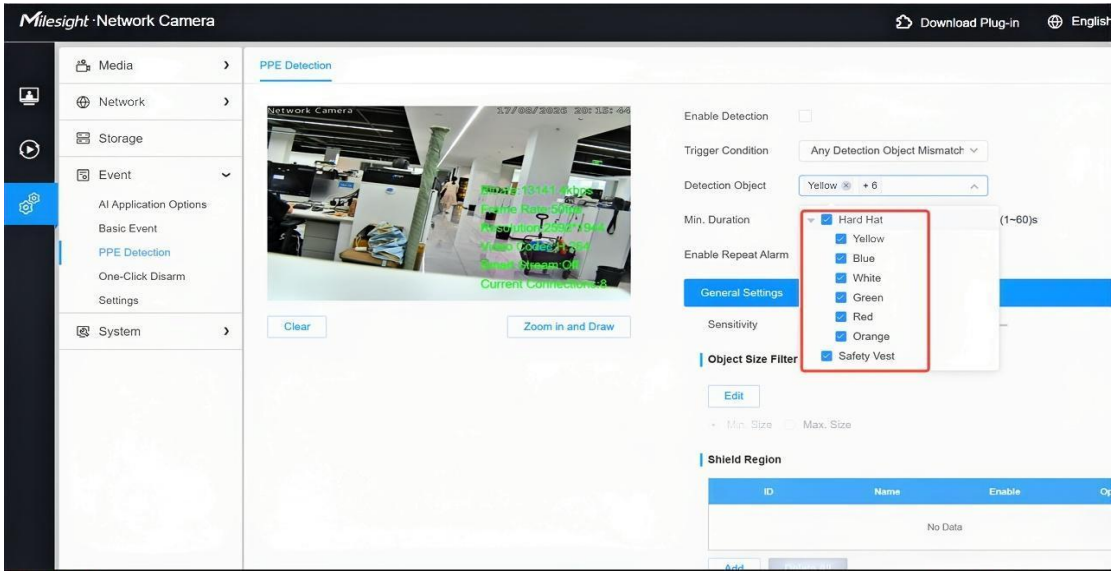
(5) Added Target Attribute Overlay on Detection Boxes

Detection bounding boxes now display target attribute information directly on the live video. The displayed attributes vary by event type, providing immediate visual feedback about detected objects.

3.3.2 Added PPE Safety Vest Detection and Hard Hat Color Filtering

The PPE detection capability has been significantly enhanced. The camera now supports safety vest detection in addition to existing PPE items. For hard hat detection, color filtering is now supported across six colors, allowing administrators to enforce site-specific safety requirements such as requiring different colored hard hats for different work zones.

Two detection modes are available: Any Detection Object Mismatch (triggers alarm if any detected object lacks required PPE) and Match All Detected Objects (requires all objects to fully comply). This enhancement is ideal for construction sites, mining operations, road maintenance, ports, and energy facility applications.



3.3.3 Face Detection Enhancements

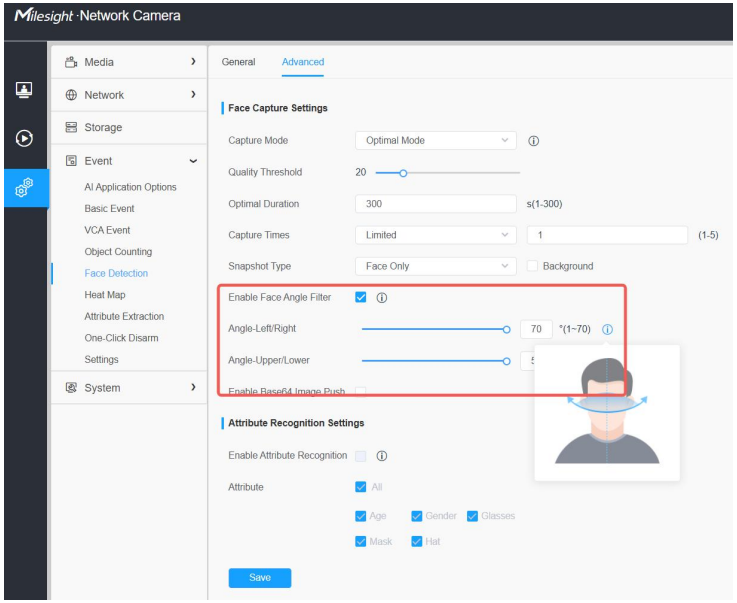
(1) Supported Original Resolution Snapshots

When Face Attribute Recognition is enabled, the camera captures face snapshots at the original sensor resolution by default, delivering higher image quality for identification and forensic analysis.

(2) Added Angle Filtering Option

An Angle Filtering option is now available, allowing administrators to set acceptable horizontal and vertical deviation angles. Only faces within the specified ranges are captured and uploaded, ensuring that only properly aligned faces are processed and improving recognition accuracy.

Note: When Face Attribute Recognition is enabled, original resolution snapshots are used by default to improve snapshot quality.



(3) Improved Recognition Accuracy

Face Attribute Recognition algorithms have been optimized, resulting in higher detection and attribute recognition accuracy.

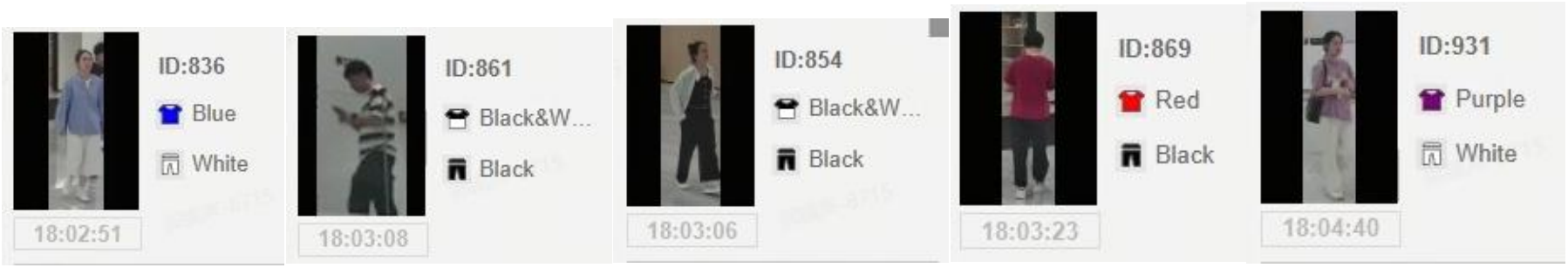
3.3.4 Attribute Extraction Enhancements

(1) Added Bag Detection

Bag detection has been newly added, supporting identification of various bag types including backpack (single or double shoulder), crossbody bag, handbag, suitcase, and shopping bag.

(2) Upper Clothing Color Recognition Optimization

Clothing color recognition for upper body has been further optimized, providing more accurate and reliable results.



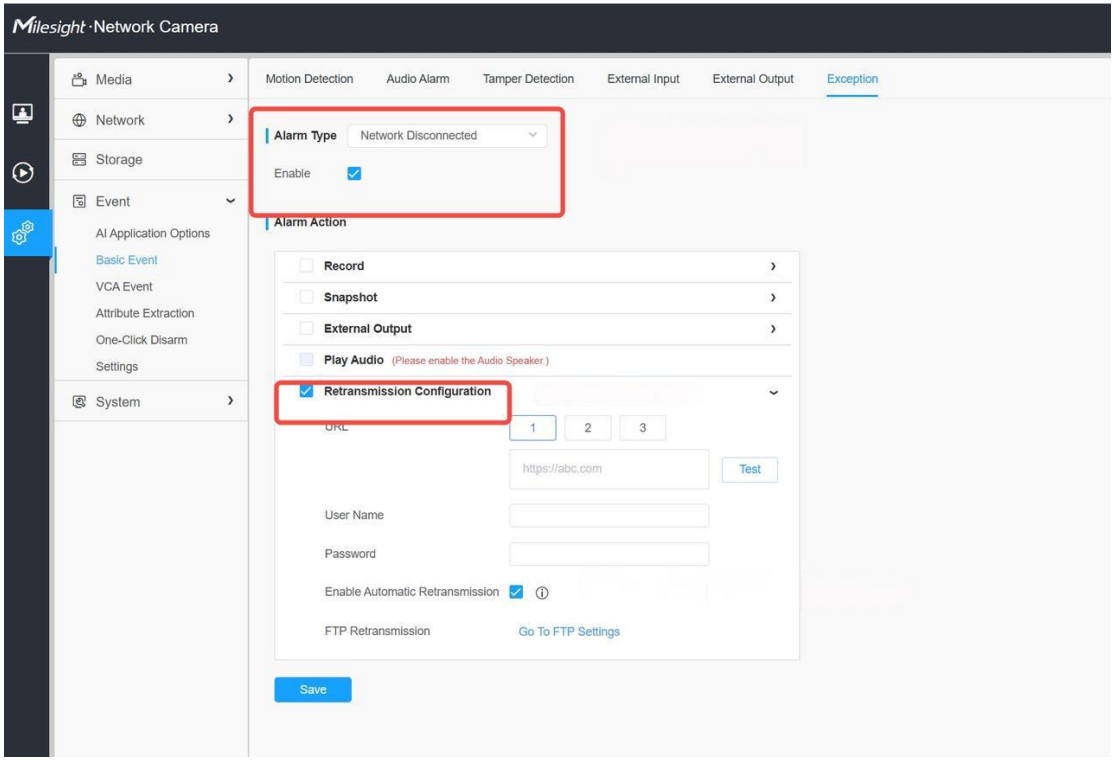
3.4 Compatibility Enhancements

3.4.1 Added Network Disconnection Retry

A new network disconnection retry function has been added to ensure reliable data transmission in unstable network environments. When enabled in Basic Event > Exception > Network Disconnected settings, the camera automatically saves event recordings and snapshots to the SD card during network outages. Once connectivity is restored, it supports retransmitting videos and images via FTP, or images via HTTP post.

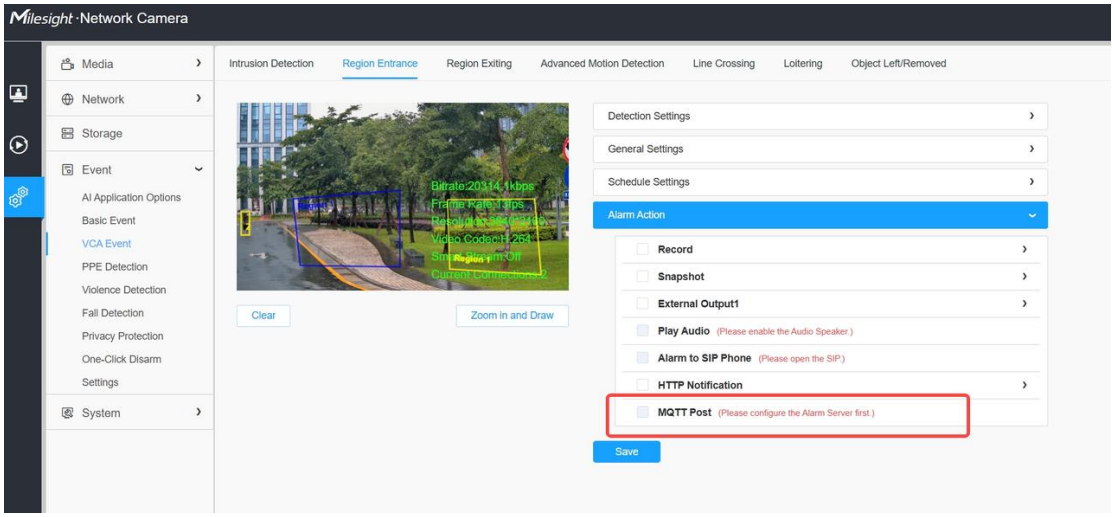
Note:

1. The retransmission function is only available when an SD card is successfully inserted.
2. 20% of the SD card capacity is reserved for retransmission. The SD card needs to be formatted when enabling this feature for the first time. It is recommended to complete the necessary configuration after powering on the device.
3. The retransmission function supports a maximum of 48 hours of data retransmission after network disconnection.



3.4.2 Added MQTT Protocol with Image Push Alarm

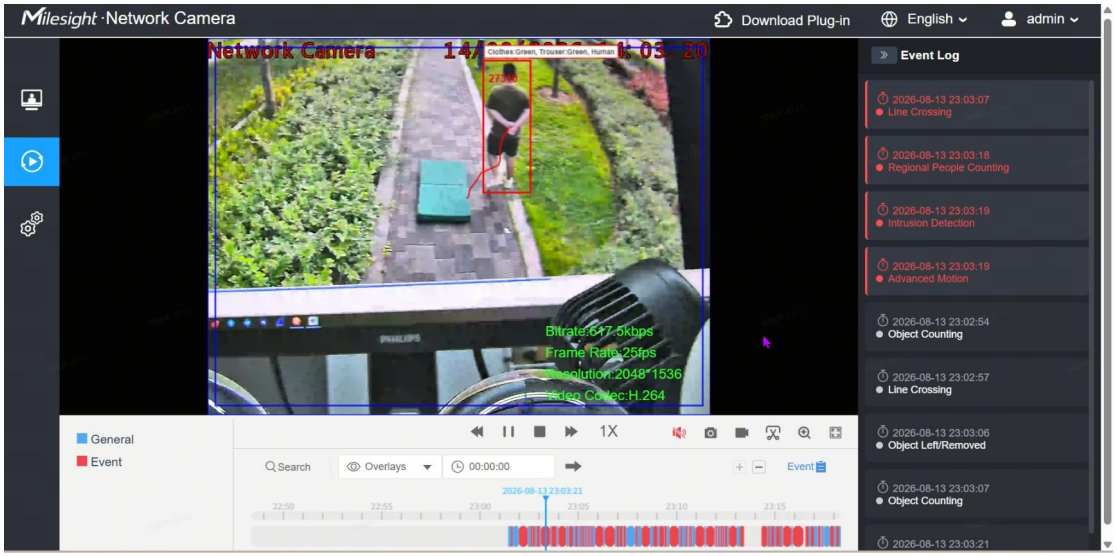
This version introduces MQTT protocol support, enabling the camera to push snapshot alarms to an MQTT broker. After configuring the MQTT server, users can select MQTT as an alarm action in event settings to push captured images.



3.4.3 Support Local Metadata Storage

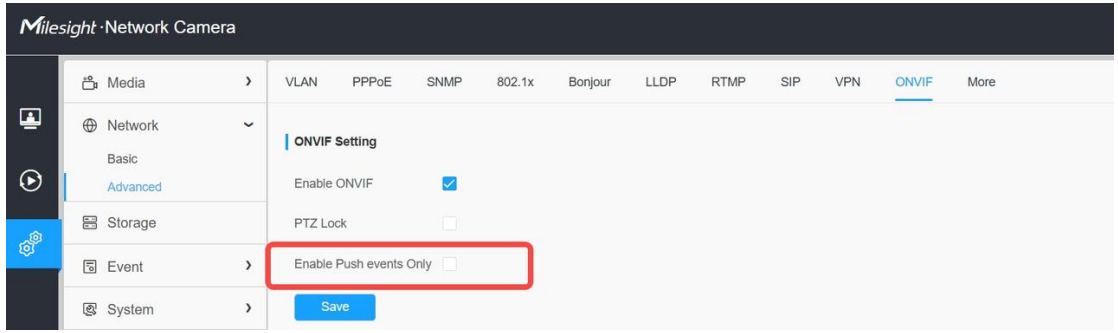
Added Metadata Storage and Playback, allowing video recordings to be stored together with associated AI metadata. Metadata can be saved to a local SD card or network NAS (NFS/SMB protocols). The playback interface supports synchronized video and metadata display, including detection bounding boxes, target boxes, and trajectory lines.

For backend platforms, it is possible to compare the metadata stored in the camera's local recordings with the metadata transmitted to third-party VMS along with the live video stream, in order to identify any potential metadata loss.



3.4.4 Optimized ONVIF Metadata Filtering

The ONVIF metadata push mechanism now supports filtering, so that only metadata for triggered events is pushed, rather than metadata for all events. This improves integration efficiency with VMS platforms.



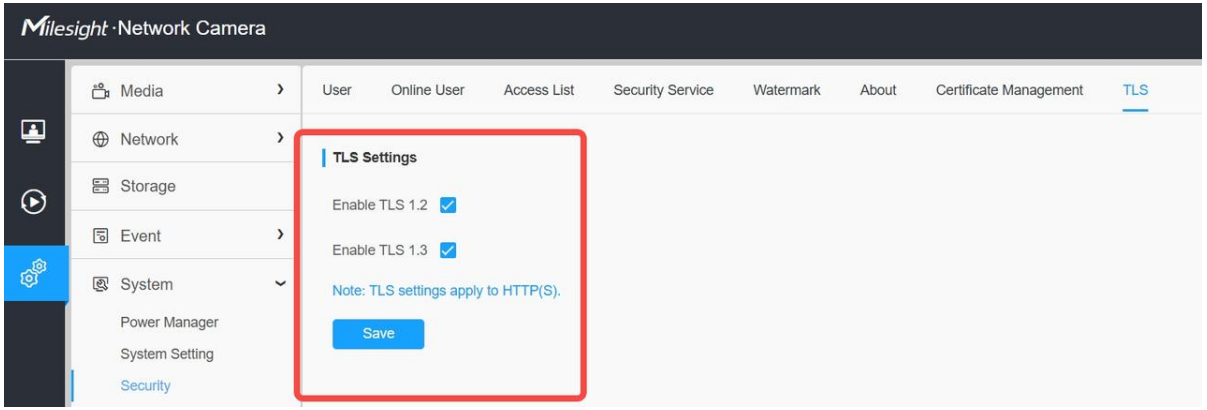
3.4.5 ONVIF 1.2 integration for enhanced device compatibility.

3.4.6 Added Heatmap API

3.5 Security and Compliance Enhancements

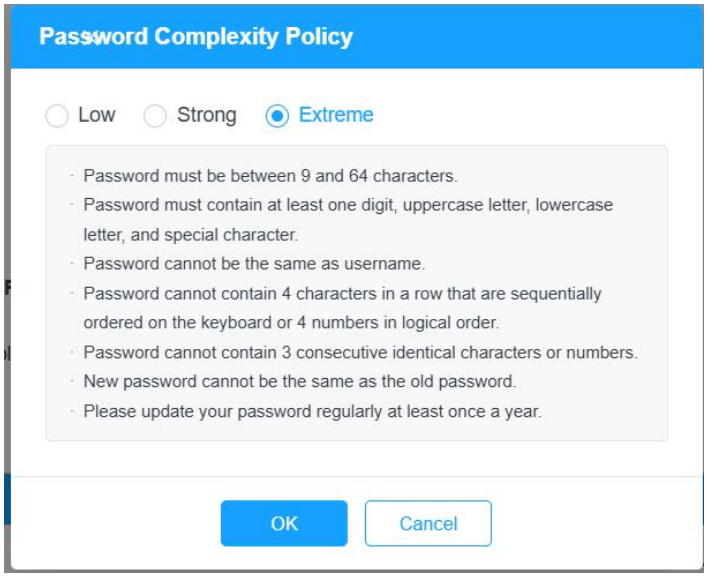
3.5.1 Added TLS 1.3 Support

The camera now supports TLS 1.3, the latest version of the Transport Layer Security protocol.



3.5.2 Password Policy Enhancement

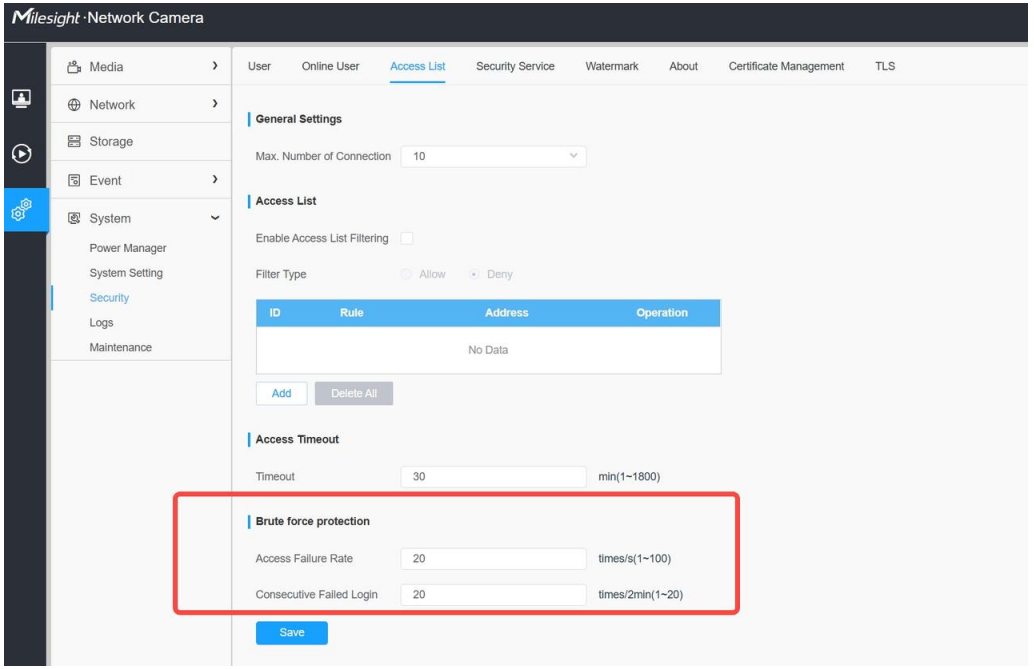
Password strength now supports three levels: Low (no requirements), Strong (8–64 characters with letters and numbers), and Extreme (enhanced rules with stricter complexity requirements, as detailed below).



3.5.3 Brute-force Protection Supported

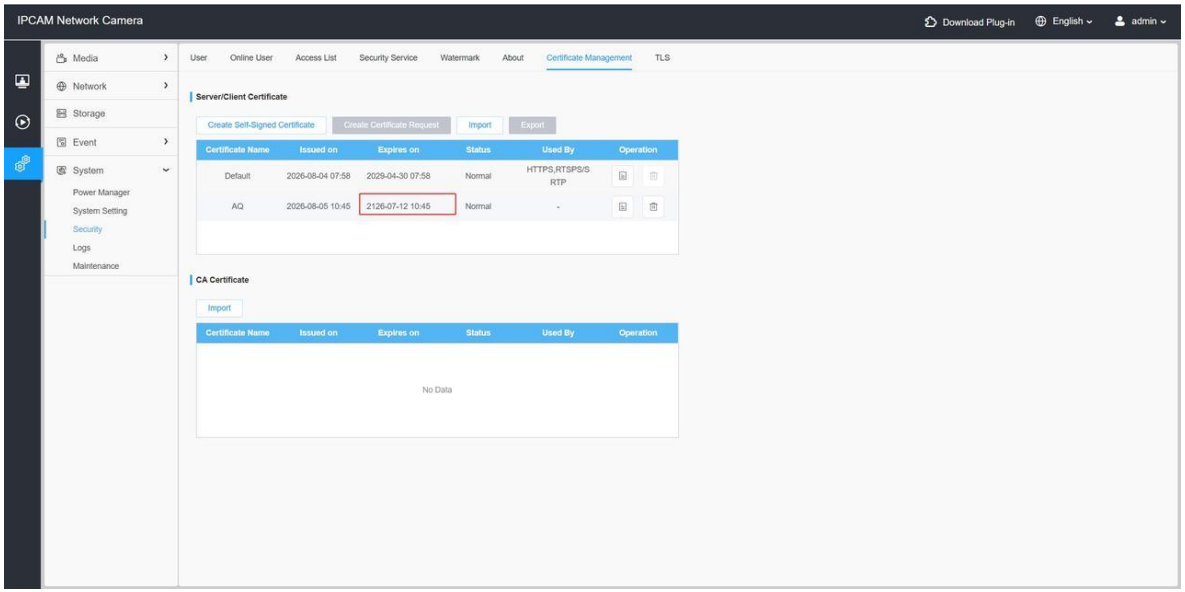
(1) Access Failure Rate: Configurable threshold for failed access attempts per second from the same IP address. If the failure rate exceeds the set threshold, the IP will be locked. Applies to: WEB, API, ONVIF, RTSP, private protocol (smart tools), third-party plugin login, P2P, SSH, and SNMP.
Range: 1–100 times/sec; Default: 20 times/sec

(2) Consecutive Failed Login: Configurable threshold for consecutive failed login attempts within a two-minute window from the same IP address. If the number of failures exceeds the set threshold, login from the IP will be restricted.
Range: 1–20 times/2min; Default: 20 times/2min



3.5.4 Optimized HTTPS Certificate Validity to 100 Years

The default HTTPS certificate validity period has been extended to 100 years, eliminating the need for frequent certificate renewal in closed or isolated network environments.



3.6 Performance and User Experience Improvements

3.6.1 Supported Scene-Based AI Configuration

This version introduces Scene-Based AI Configuration, enabling users to quickly deploy AI functions according to specific application scenarios. Four preset scenarios and one customizable scenario are provided, each with pre-configured event combinations optimized for the respective use case. This approach significantly reduces the user's configuration workload and lowers the learning curve for AI deployment.

The five scenarios and their default event configurations are as follows:

Application Scenario	Perimeter Protection	Construction Safety	Public Safety	Retail Analytics	Customize
VCA	✓	✓	✓	—	✓
Sound Classification	✓	✓	✓	✓	✓
Object Counting	—	—	—	✓	✓
Heat Map	—	—	—	✓	✓
Face Detection	✓	—	—	✓	✓
Attribute Extraction	—	—	✓	—	✓
PPE Detection	—	✓	—	—	✓

AI Event Compatibility Matrix (for Pro Series):

AI Feature	VCA	Object Counting	Heat Map	Attribute Extraction	Face Detection	Face Attribute Recognition	PPE Detection	Sound Classification
VCA	ON	✓	✓	✓	✓	✗	✓	✓
Object Counting	✓	ON	✓	✓	✓	✗	✓	✓
Heat Map	✓	✓	ON	✓	✓	✗	✓	✓
Attribute Extraction	✓	✓	✓	ON	✓	✗	✓	✓
Face Detection	✓	✓	✓	✓	ON	▲	✓	✓

AI Feature	VCA	Object Counting	Heat Map	Attribute Extraction	Face Detection	Face Attribute Recognition	PPE Detection	Sound Classification
Face Attribute Recognition	✗	✗	✗	✗	✓	ON	✗	✓
PPE Detection	✓	✓	✓	✓	✓	✗	ON	✓
Sound Classification	✓	✓	✓	✓	✓	✓	✓	ON

AI Event Compatibility Matrix (for Dual Sensor Models):

AI Feature	VCA	Object Counting	Heat Map	Attribute Extraction	Face Detection	Face Attribute Recognition	PPE Detection	Sound Classification
VCA	ON	✓	✓	✓	✓	✗	✓	✓
Object Counting	✓	ON	✓	✓	✓	✗	✓	✓
Heat Map	✓	✓	ON	✓	✓	✗	✓	✓
Attribute Extraction	✓	✓	✓	ON	✓	✗	✓	✓
Face Detection	✓	✓	✓	✓	ON	▲	✓	✓
Face Attribute Recognition	✗	✗	✗	✗	✓	ON	✗	✓
PPE Detection	✓	✓	✓	✓	✓	✗	ON	✓
Sound Classification	✓	✓	✓	✓	✓	✓	✓	ON

How to Read This Matrix:

✓	Can be enabled at the same time (simultaneous enable)
✗	Cannot be enabled at the same time (mutually exclusive)
▲	Prerequisite - can be enabled only when its precondition is met (Attribute Recognition requires Face Detection to be enabled)
ON	The reference feature itself - the feature in this row is switched on

3.6.2 Optimized AI Configuration Usability

When enabling an event, if the selected Region or Line tab has no detection area or line previously drawn, the system now automatically creates a default rectangular detection area or detection line. Users can drag the vertices to adjust the shape or click Clear to redraw.

3.6.3 DHCP Default Enabled at Factory

DHCP is now enabled by default at factory settings. Devices will automatically obtain IP addresses from the network DHCP server upon first startup.

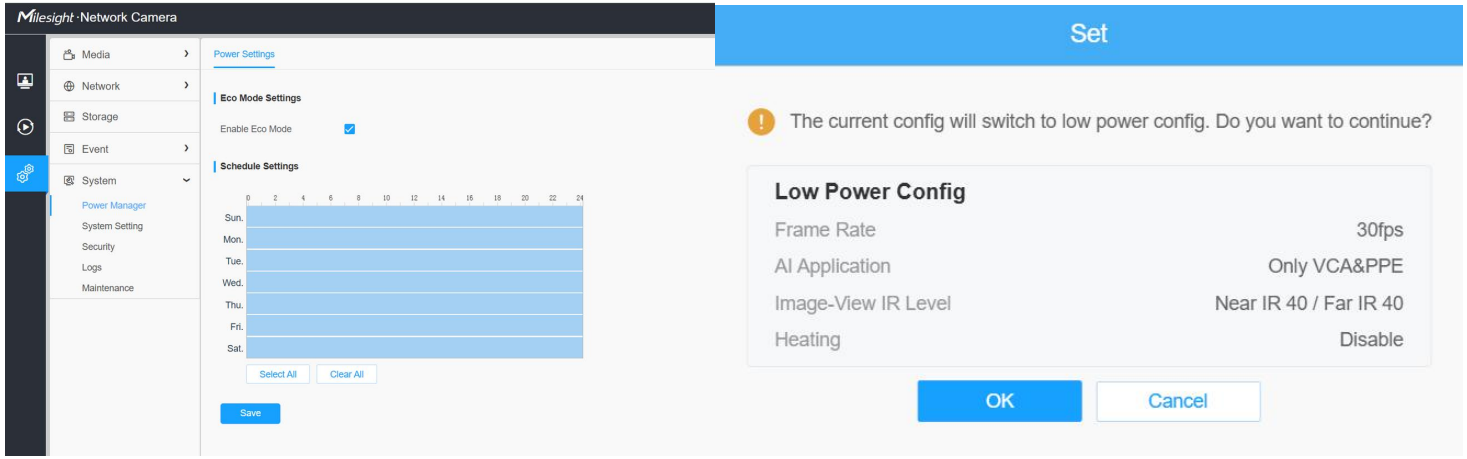
3.6.4 SMTP Supports 128-Character Passwords

SMTP email alert configuration now supports passwords up to 128 characters, ensuring compatibility with modern email security standards.

3.6.5 Added Eco Mode for Low-Power Operation

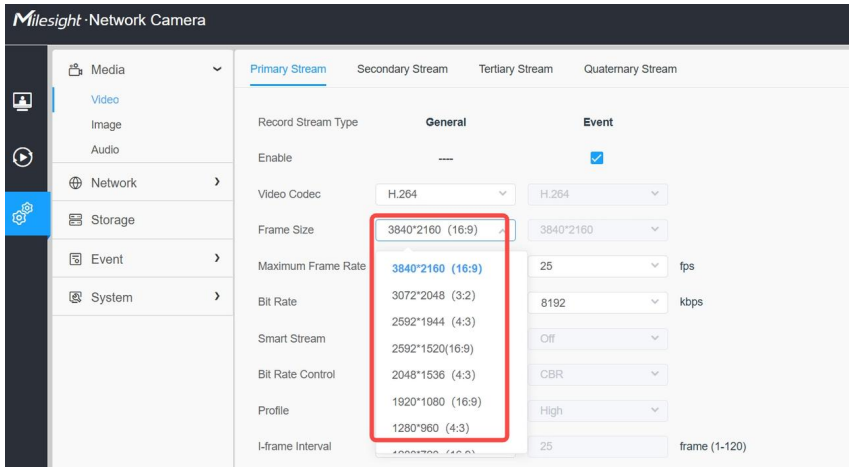
A new **Eco Mode** has been added to the Power Manager settings, designed for scenarios where power consumption is critical, such as solar-powered outdoor installations. When Eco Mode is enabled, the camera automatically adjusts multiple parameters to reduce overall power consumption while maintaining essential surveillance capabilities.

Eco Mode also supports an independent schedule configuration, allowing users to define specific time periods during which the camera operates in low-power mode. When the scheduled Eco Mode period ends, the camera automatically restores all previously configured settings.



3.6.6 Aspect Ratio Display for Resolution Selection

When selecting resolution in the web interface, aspect ratios are now displayed, allowing users to intuitively understand the screen proportions.



3.7 Bug Fixed

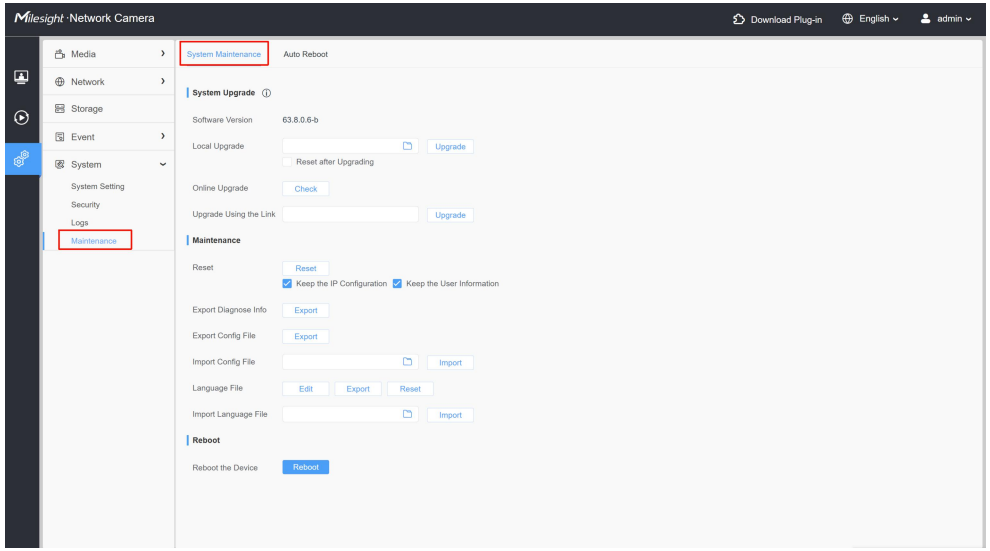
- Fixed known bugs.

4. Upgrade Steps

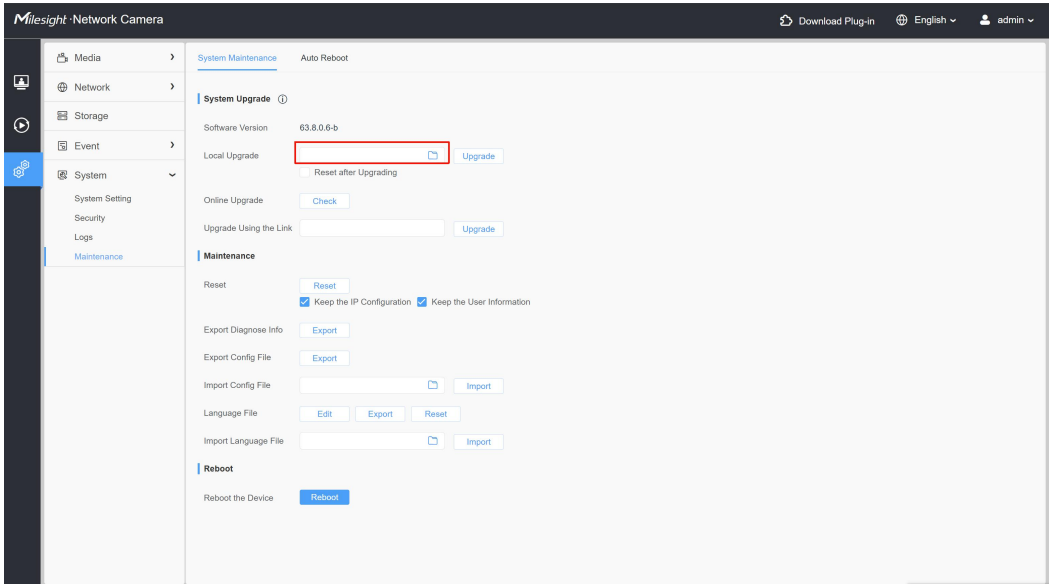
Two upgrade methods are available for updating each model to the corresponding firmware version.

4.1 Local Upgrade

Step 1: Access the web page of your Milesight network camera and choose “Configuration” -> “Maintenance” -> “System Maintenance”.

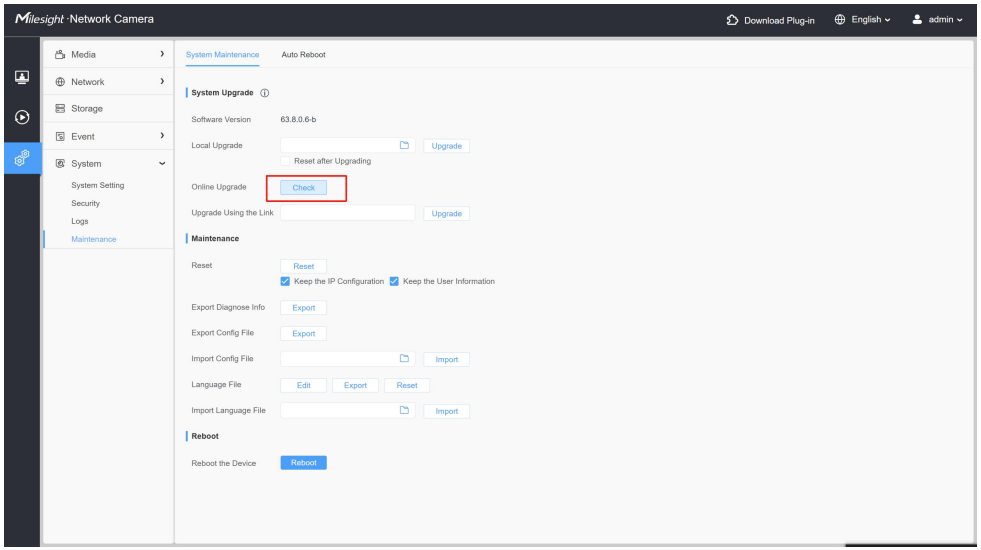


Step 2: Choose a file for the upgrade. Click "Upgrade" in the row of “Local Upgrade” and wait about 1 to 3 minutes. The upgrade will be done after the system reboots successfully.

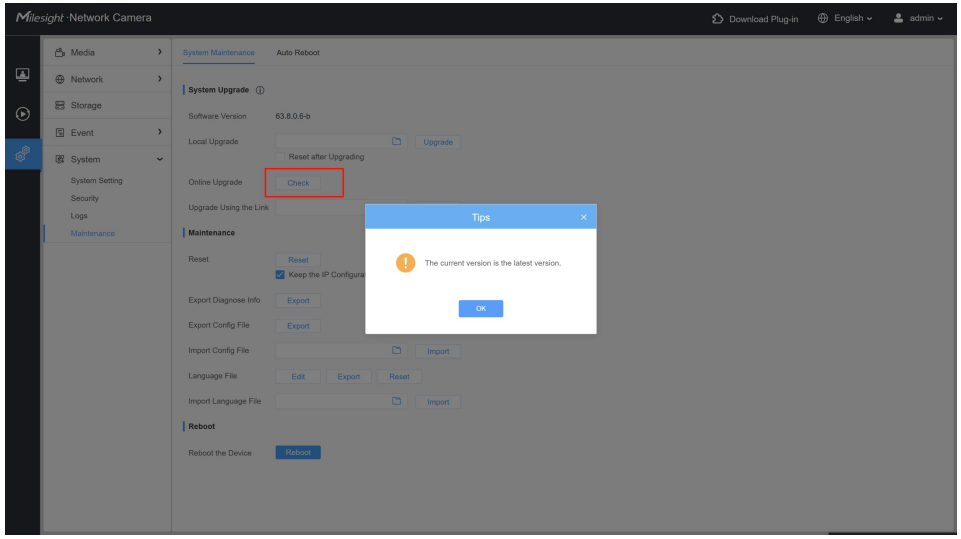


4.2 Online Upgrade

Step 1: Click “Check” in the row of “Online Upgrade” to verify if the version is the latest one.



Step 2: If yes, click “OK” in the displayed box. If not, click “OK” to upgrade to the latest version.



Note:

To ensure compatibility with the new Password Policy Enhancement feature, please upgrade Smart Tools to version 2.4.0.5-r26 or above. Only with this version can Smart Tools properly search for and configure cameras using the enhanced password policy.

----END----