Network Camera Firmware
Version: V5.6.0
Release Note (External)
(2019-06-06)

Firmware Basic Information	Firmware Version:	V5.6.0_190428
	SDK Version:	V6.0.2.36 build20190419
	iVMS-4200	V2.8.2.3 _190422

5/7 Series Camera Firmware V5.6.0 build190428 Features

1. Optimization

- Newly release anti-corrosion models: DS-2CD7A26G0-IZ(H)SY(2.8-12mm), DS-2CD7A46G0-IZ(H)SY(2.8-12mm), which support RS-485 and audio.

- Newly support Ehome5.0.

- Newly add SFTP protocol, which supports Event-Triggered snapshot and Timing snapshot (minimum interval 1s). Anonymous is invalid for SFTP.

- Web and SDK support playback with RTSP over https. The stream is encrypted with TLS. Log in with https and select the local protocol of web as HTTP, so it will playback with https.

- Support multiple image parameter sets including Normal, Back light, Front light, Low illumination, Customer 1 and Customer2. The default set is Normal and the image parameters can be adjusted independently under different sets. Only one set is effective during the same time period.

- The image style has changed under Custom 2 model, involving in 2MP, 4MP, 6MP and 8MP.

- Bullet and Dome camera (only for 8-32mm and (B) models) support P-iris.

- OSD supports Korean characters:

1) "GBK" and "EUC-KR" are available, the character stock of default is "GBK".

2) Support switch character stocks via IPC web and 4200 Client.

3) Reboot is required after changing the character set, formerly configured OSD content will be cleared.

4) Korean character is available for Camera Name, Date and Text Overlay.

5) Character set cannot be export/import via device parameters.

6) It is recommended that configure EUC-KR on Korean operating system.

- Support set 8 regions of Privacy Mask only in web. 4 regions is supported if with SDK protocol.

- OSD Alignment of "All align Right" and "All Align Left" are supported, includes time and camera name.

1) If you select character align right, character align left, all align left or all align right, you can set the left and right margins and up and down margins. 1 Character, 2 character and none are available. Margin function is invalid for Custom Alignment.

2) Custom Alignment: OSD box can be optionally dragged more than 16 pixels.

3) Custom Alignment: Character will display completely even if box beyond the boundary.

4) OSD will adjust row spacing if two boxes overlap each other.

- Live View Quick Setup: It allows quick setup of image/video related parameters on live view page.

- Optimize WEB Local service, non-plugin preview and plug-in preview.

Browser version of no plug-in preview: Chrome57.0+, Firefox52.0+，Safari11+

Browser version of plug-in preview: IE8+

Browser version of Local service: Chrome57.0+, Firefox52.0+

- Optimize the algorithm of Smart Event and reduce the false alarm. There are "Human", "Vehicle" and "All" optional for Intrusion Detection, Line Crossing Detection, Region Entrance and Region Exiting Detection.

- Support LAN Domain Name Setting. It is disabled by default. The max length of Domain name is 64 characters, and actual display length is limited by router. Chinese and special characters (/ \ : ; * ? ' " < > | %) are not available, case of English letters(A-Z,a-z), number(0-9), and (- _ . [ ]) are supported. DNS can be configured under LAN and WLAN, once DHCP is enabled.

- IE supports original window size.

- MP3 audio encoding is newly supported, audio broadcasting is not supported.

- Web will display smart event alarm and picture, but the picture won't be saved. It is necessary to select "Remote: Notify Surveillance Center/Trigger Alarm Output" option for operator.

- Support metadata of Smart event, Queue Management and Face Capture, which is raw data the camera collects before algorithm processing. If enabled, the metadata of the corresponding event are available for users to explore the possibility of various data usage.

- The metadata of the Smart event includes the target ID, target coordinate and time information.

- The metadata of Queue Management includes the rule information, region ID, target ID, target coordinate and time information. The camera detects the whole image by default. If the region is configured in the queue management settings, the camera detects the configured region.

- The metadata of Face Capture includes the rule information, target ID, target coordinate, face grading and time information. The camera detects the whole image by default. If the region is configured in the face capture settings, the camera detects the configured region.

- 5-Line IPCs: Only support Metadata of Smart Event.

- 7-Line IPCs: Three metadata options (Smart event, Queue Management, Face Capture) are displayed according to device capability.

- Optimize the algorithm of Queue Detection. All 7-line IPCs support queue detection function. It supports display the algorithm version information.

- Support HTTP Listening configuration. Notify Surveillance Center of Linkage Method is enabled by default

Limited condition: If there are frequent alarms, the minimum time interval is 10s between each alarm.

- Multicast configuration and FEC (Forward Error Correction).

Note: Large FEC can keep video fluently when network is high packet loss, but audio doesn't support FEC.

- Change SD card Formatting Type to EXT4, windows system need to download a drive tool to read EXT4. Old version device both support FAT32 and WXT4 when it's just updated to V5.6.0, but there is only EXT4 after formatting SD card.

- Optimize the report of Queuing Detection and Queue Management.

- Optimize the Face Capture function. It newly adds the Capture/Record button for fast configuration.

- Support ONVIF1812 and profile T.

- For Face Capture, Smart Event and Queue Detection, the arming schedule is default set as 24*7 and Notify Surveillance Center is enabled by default.

- For Motion Detection, the arming schedule is default set as 24*7 and Trigger Recording is enabled by default

- Support enable SSH on web and it is disabled by default.

- Alarm output delay time can be set to 1s.

- Support verify the installed Certificate of https and it will display the verification result of certificate.

- Add the button of Create Certificate, which only displays when the status is abnormal. It is necessary to reboot the device after creating the certificate. The Websockets, http and SDKS will be disabled if creating certificate failed.

- SDK supports Win64.

- IVMS-4200 support detect Hik-Connect upgrading firmware. If it detects the new one, it will hint the upgrade information and user can click it to upgrade directly and automatically. Only 8000 port is supported when online upgrading with IVMS-4200.

- Optimize the Motion Detection algorithm. When the sensitivity is set as 60 or above, the object pixel of 2*2 will trigger the alarm under 352*288 resolution. For other resolution, it can be enlarged and calculated with the equal proportion.

- It supports display the Width and Height pixel of the selected area when previewing

with main stream.

- The authentication protocol of 802.1X includes EAP-MD5, EAP-TLS, EAP-LEAP.

- It supports reset the password via E-mail. The illegal login attempt includes the times of password recovery.

- Face capture function supports snapshot settings.

- Face capture function supports quick shot. The default mode is best shot.

- In the playback interface of Web and IVMS-4200, it will display the tab on the calendar if there has the record. The initial search time of record is modified to local OSD time, not PC' time.

- Support uploading the alarm with http protocol for Face Capture, Smart Event and Queue Detection.

- Support uploading alarm with http protocol for exception type including HDD Full, HDD Error, Queue Detection and Illegal Login, except Network Disconnected and IP Address Conflicted. Notify Surveillance Center is enabled by default.

- ANR is not supported for http alarm.

- Add key log record.

- IP will be locked if entering wrong user name or password over 7 times, including user and administrator level.

- Support upload the SDK local time adds UTC time for Face Capture, Face Detection and Queue Detection.

Compatibility Update

- Milestone:

Milestone Corporate (ISAPI) version: 2018R2, 12.2a, 8608

- **Exacq_ISAPI version:**

Version: 19.03.6.152960 (×64)

- **Avigilon (ONVIF) version:**

 Version: V6.8.20180110

- **Digifort:**

  Version: V7.2.0.0

- **Tested NVRs:**

  DeepInmind NVR: iDS-96128NXI-I16 V4.1.25, only for vehicle detection testing.

  I Series:

  DS-7716NI-I4 V4.1.64 build190119

  DS-96256NI-I24/H V4.1.63 build181106

  DS-7716NI-I4 NVR_K51_BL_CN_STD_V4.21.000_190409

- **Others:**

  HikCentral platform version: V1.4.0.6, EHOME5.0

  EHOME DEMO version: V2.2.1.151

  8200 platform: V3.7.0

  2016 debug software: V1.0

Customer Impact and Recommended Action

This update refers to function/compatibility improvement and will take effect automatically after the Date of Change. We are very sorry for any inconvenience of use-habit changes caused by this action.

For any questions and request for this firmware, please contact our local technical support team.

Remarks:

- Hikvision reserves the right to change, alter or withdraw the above notification without prior notice.

- Product design and specifications are subject to change without prior notice.

- The Hikvision firmware may contain defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

- Hikvision is not liable for any typing or printing errors.

Hikvision Digital Technology CO., Ltd.
No. 555 Qianmo Road, Binjiang District, Hangzhou 310051, China
Tel: +86-571-8807-5998
FAX: +86-571-8993-5635

Supported Product List (5XXX, 7XXX)

NOTES: The models with red are new.

Product Category	Model Number	Product Description
Box Camera	DS-2CD5026G0-(A)(P)	2MP, 60fps, 140dB WDR
Box Camera	DS-2CD5046G0-(A)(P)	4MP, 140dB WDR
Box Camera	DS-2CD5065G0-(A)(P)	6MP, ABF, P-iris optional
Box Camera	DS-2CD5085G0-(A)(P)	8MP, ABF, P-iris optional
Box Camera	DS-2CD50C5G0-(P)	12MP, P-iris optional
Indoor Dome Camera	DS-2CD5126G0-IZS (2.8-12mm)(8-32mm)	2MP, 60fps, 140dB WDR
Indoor Dome Camera	DS-2CD5146G0-IZS (2.8-12mm)	4MP, IK10, 140dB WDR
Indoor Dome Camera	DS-2CD5165G0-IZS (2.8-12mm)	6MP, IK10, WDR
Indoor Dome Camera	DS-2CD5185G0-IZS (2.8-12mm)	8MP, IK10, WDR
Indoor Dome Camera	DS-2CD51C5G0-IZS (2.8-12mm)	12MP, IK10, WDR
Indoor Dome Camera	DS-2CD5126G0-IZS (2.8-12mm)(B)	2MP, 60fps, 140dB WDR
Indoor Dome Camera	DS-2CD5146G0-IZS (2.8-12mm)(B)	4MP, IK10, 140dB WDR
Indoor Dome Camera	DS-2CD5165G0-IZS (2.8-12mm)(B)	6MP, IK10, WDR

Indoor Dome Camera	DS-2CD5185G0-IZS (2.8-12mm)(B)	8MP, IK10, WDR
Indoor Dome Camera	DS-2CD51C5G0-IZS (2.8-12mm)(B)	12MP, IK10, WDR
Indoor Dome Camera	DS-2CD51C5G0-IZS (2.8-12mm)	12MP, IK10, IR
Anti-Corrosion Dome Camera	DS-2CD5526G0-IZ(H)SY(2.8-12mm)(B)	2MP, IR, Anti-Corrosion
Anti-Corrosion Dome Camera	DS-2CD5546G0-IZ(H)SY(2.8-12mm)(B)	4MP, IR, Auto-iris, Anti-Corrision
Outdoor Dome Camera	DS-2CD5526G0-IZ(H)S(2.8-12mm)(8-32mm)	2MP, IR, Heater optional
Outdoor Dome Camera	DS-2CD5546G0-IZ(H)S(2.8-12mm)(8-32mm)	4MP, IR, WDR
Outdoor Dome Camera	DS-2CD5565G0-IZ(H)S(2.8-12mm)	6MP, IR, WDR
Outdoor Dome Camera	DS-2CD5585G0-IZ(H)S(2.8-12mm)(8-32mm)	8MP, IR, Heater optional
Outdoor Dome Camera	DS-2CD55C5G0-IZ(H)S(2.8-12mm)	12MP, IR, Heater optional
Outdoor Dome Camera	DS-2CD5565G0-IZ(H)S(2.8-12mm)(B)	6MP, IR, WDR
Outdoor Dome Camera	DS-2CD5585G0-IZ(H)S(2.8-12mm)(B)	8MP, IR, Heater optional
Outdoor Dome Camera	DS-2CD55C5G0-IZ(H)S(2.8-12mm)(B)	12MP, IR, Heater optional
Outdoor Dome Camera	DS-2CD5526G1-IZ(H)S(2.8-12mm)(8-32mm) External cable	2MP, IR, Heater optional
Outdoor Dome Camera	DS-2CD5546G0-IZ(H)S(2.8-12mm)(8-32mm) External cable	4MP, IR, WDR
Outdoor Dome Camera	DS-2CD5585G0-IZ(H)S(2.8-12mm)(8-32mm) External cable	8MP, IR, WDR
Bullet Camera	DS-2CD5A26G0-IZ(H)S(2.8-12mm)(8-32mm)	2MP, IR, WDR, Heater optional
Bullet Camera	DS-2CD5A46G0-IZ(H)S(2.8-12mm)(8-32mm)	4MP, IR, WDR, Heater optional
Bullet Camera	DS-2CD5A46G0-IZ/UH(H)S(2.8-12mm)	4MP, IR, WDR, Heater optional
Bullet Camera	DS-2CD5A65G0-IZ(H)S(2.8-12mm)(8-32mm)	6MP, IR, Heater optional
Bullet Camera	DS-2CD5A85G0-IZ(H)S(2.8-12mm)(8-32mm)	8MP, IR, Heater optional
Bullet Camera	DS-2CD5AC5G0-IZ(H)S(2.8-12mm)	12MP, IR, Heater optional
Bullet Camera	DS-2CD5A26G0-IZ(H)SY(2.8-12mm)(B)	2MP, IR, WDR, Anti-Corrision
Bullet Camera	DS-2CD5A46G0-IZ(H)SY(2.8-12mm)(B)	4MP, IR, WDR, Anti-Corrision
Bullet Camera	DS-2CD5A65G0-IZ(H)S(2.8-12mm)(B)	6MP, IR, Heater optional
Bullet Camera	DS-2CD5A85G0-IZ(H)S(2.8-12mm)(B)	8MP, IR, Heater optional

Bullet Camera	DS-2CD5AC5G0-IZ(H)S(2.8-12mm)(B)	12MP, IR, Heater optional
Bullet Camera	DS-2CD5A26G1-IZ(H)S(2.8-12mm)(8-32mm) External cable	2MP, IR, WDR
Bullet Camera	DS-2CD5A26G0-IZ(H)SY(2.8-12mm)(C)	2MP, IR, WDR
Bullet Camera	DS-2CD5A46G1-IZ(H)S(2.8-12mm)(8-32mm) External cable	4MP, IR, WDR
Bullet Camera	DS-2CD5A46G0-IZ(H)SY(2.8-12mm)(C)	4MP, IR, WDR
Bullet Camera	DS-2CD5A85G1-IZ(H)S(2.8-12mm)(8-32mm) External cable	8MP, IR, WDR
Box Camera	DS-2CD7026G0-(A)(P)	2MP, P-iris optional
Box Camera	DS-2CD7046G0-(A)(P)	4MP, P-iris optional
Box Camera	DS-2CD7065G0-(A)(P)	6MP, P-iris optional
Box Camera	DS-2CD7085G0-(A)(P)	8MP, P-iris optional
Indoor Dome Camera	DS-2CD7126G0-IZS(2.8-12mm)(8-32mm)	2MP, IK10, WDR, IR
Indoor Dome Camera	DS-2CD7126G0/L-IZS(2.8-12mm)	2MP, IK10, WDR, IR
Indoor Dome Camera	DS-2CD7146G0-IZS(2.8-12mm)(8-32mm)	4MP, IK10, WDR, IR
Indoor Dome Camera	DS-2CD7165G0-IZS(2.8-12mm)	6MP, IK10, IR
Indoor Dome Camera	DS-2CD7185G0-IZS(2.8-12mm)(8-32mm)	8MP, IK10, IR
Indoor Dome Camera	DS-2CD7126G0-IZS(2.8-12mm)(B)	2MP, IK10, WDR, IR
Indoor Dome Camera	DS-2CD7126G0/L-IZS(2.8-12mm)(B)	2MP, IK10, WDR, IR
Indoor Dome Camera	DS-2CD7146G0-IZS(2.8-12mm)(B)	4MP, IK10, WDR, IR
Indoor Dome Camera	DS-2CD7165G0-IZS(2.8-12mm)(B)	6MP, IK10, IR
Indoor Dome Camera	DS-2CD7185G0-IZS(2.8-12mm)(B)	8MP, IK10, IR
Outdoor Dome Camera	DS-2CD7526G0-IZ(H)SY(2.8-12mm) (8-32mm)	2MP, IR, Anti-Corrision
Outdoor Dome Camera	DS-2CD7546G0-IZ(H)SY(2.8-12mm) (8-32mm)	4MP, IR, Anti-Corrision
Outdoor Dome Camera	DS-2CD7526G0-IZ(H)S(2.8-12mm) (8-32mm)	2MP, IR, WDR
Outdoor Dome Camera	DS-2CD7546G0-IZ(H)S(2.8-12mm)(8-32mm)	4MP, IR, WDR
Outdoor Dome Camera	DS-2CD7565G0-IZ(H)S(2.8-12mm)	6MP, IR, WDR
Outdoor Dome Camera	DS-2CD7585G0-IZ(H)S(2.8-12mm)(8-32mm)	8MP, IR, WDR
Outdoor Dome Camera	DS-2CD7526G0-IZ(H)SY(2.8-12mm)(B)	2MP, IR, Anti-Corrision

Outdoor Dome Camera	DS-2CD7546G0-IZ(H)SY(2.8-12mm)(B)	4MP, IR, Anti-Corrision
Outdoor Dome Camera	DS-2CD7526G0-IZ(H)S(2.8-12mm)(B)	2MP, IR, WDR
Outdoor Dome Camera	DS-2CD7546G0-IZ(H)S(2.8-12mm)(B)	4MP, IR, WDR
Outdoor Dome Camera	DS-2CD7565G0-IZ(H)S(2.8-12mm)(B)	6MP, IR, WDR
Outdoor Dome Camera	DS-2CD7585G0-IZ(H)S(2.8-12mm)(B)	8MP, IR, WDR
Bullet Camera	DS-2CD7A26G0-IZ(H)S(2.8-12mm)(8-32mm)	2MP, IR, WDR
Bullet Camera	DS-2CD7A26G0-IZ(H)SY(2.8-12mm)(8-32mm)	2MP, IR, Anti-Corrision
Bullet Camera	DS-2CD7A46G0-IZ(H)S(2.8-12mm)(8-32mm)	4MP, IR, WDR
Bullet Camera	DS-2CD7A46G0-IZ(H)SY(2.8-12mm)(8-32mm)	4MP, IR, Anti-Corrision
Bullet Camera	DS-2CD7A65G0-IZ(H)S(2.8-12mm)	6MP, IR, Heater optional
Bullet Camera	DS-2CD7A85G0-IZ(H)S(2.8-12mm)(8-32mm)	8MP, IR, Heater optional
Bullet Camera	DS-2CD7A26G0-IZ(H)S(2.8-12mm)(B)	2MP, IR, WDR
Bullet Camera	DS-2CD7A46G0-IZ(H)S(2.8-12mm)(B)	4MP, IR, WDR
Bullet Camera	DS-2CD7A65G0-IZ(H)S(2.8-12mm)(B)	6MP, IR, WDR
Bullet Camera	DS-2CD7A85G0-IZ(H)S(2.8-12mm)(B)	8MP, IR, WDR

Supported P-iris Model:

DS-2CD5546G0-IZ(H)S(8-32)
DS-2CD5585G0-IZ(H)S(8-32)
DS-2CD5A46G0-IZ(H)S(8-32)
DS-2CD5A85G0-IZ(H)S(8-32)
DS-2CD7146G0-IZS(8-32)
DS-2CD7185G0-IZS(8-32)
DS-2CD7546G0-IZ(H)S(8-32)
DS-2CD7585G0-IZ(H)S(8-32)
DS-2CD7A46G0-IZ(H)S(8-32)
DS-2CD7A85G0-IZ(H)S(8-32)
DS-2CD5526G1-IZ(H)S(2.8-12)
DS-2CD5526G1-IZ(H)S(8-32)
DS-2CD5546G1-IZ(H)S(2.8-12)
DS-2CD5546G1-IZ(H)S(8-32)
DS-2CD5585G1-IZ(H)S(2.8-12)
DS-2CD5585G1-IZ(H)S(8-32)
DS-2CD5A26G1-IZ(H)S(2.8-12)
DS-2CD5A26G1-IZ(H)S(8-32)

DS-2CD5A46G1-IZ(H)S(2.8-12)
DS-2CD5A46G1-IZ(H)S(8-32)
DS-2CD5A85G1-IZ(H)S(2.8-12)
DS-2CD5A85G1-IZ(H)S(8-32)
DS-2CD5126G0-IZS(2.8-12)（B）
DS-2CD5146G0-IZS(2.8-12)（B）
DS-2CD5165G0-IZS(2.8-12)（B）
DS-2CD5185G0-IZS(2.8-12)（B）
DS-2CD51C5G0-IZS(2.8-12)（B）
DS-2CD5526G0-IZ(H)S(2.8-12)（B）
DS-2CD5546G0-IZ(H)S(2.8-12)（B）
DS-2CD5565G0-IZ(H)S(2.8-12)（B）
DS-2CD5585G0-IZ(H)S(2.8-12)（B）
DS-2CD55C5G0-IZ(H)S(2.8-12)（B）
DS-2CD5A26G0-IZ(H)S(2.8-12)（B）
DS-2CD5A46G0-IZ(H)S(2.8-12)（B）
DS-2CD5A65G0-IZ(H)S(2.8-12)（B）
DS-2CD5A85G0-IZ(H)S(2.8-12)（B）
DS-2CD5AC5G0-IZ(H)S(2.8-12)（B）
DS-2CD5526G0-IZ(H)SY(2.8-12)（B）
DS-2CD5546G0-IZ(H)SY(2.8-12)（B）
DS-2CD5A26G0-IZ(H)SY(2.8-12)（B）
DS-2CD5A46G0-IZ(H)SY(2.8-12)（B）
DS-2CD7126G0-IZS(2.8-12)（B）
DS-2CD7146G0-IZS(2.8-12)（B）
DS-2CD7165G0-IZS(2.8-12)（B）
DS-2CD7185G0-IZS(2.8-12)（B）
DS-2CD7126G0/L-IZS(2.8-12)（B）
DS-2CD7526G0-IZ(H)S(2.8-12)（B）
DS-2CD7546G0-IZ(H)S(2.8-12)（B）
DS-2CD7565G0-IZ(H)S(2.8-12)（B）
DS-2CD7585G0-IZ(H)S(2.8-12)（B）
DS-2CD7A26G0-IZ(H)S(2.8-12)（B）
DS-2CD7A46G0-IZ(H)S(2.8-12)（B）
DS-2CD7A65G0-IZ(H)S(2.8-12)（B）
DS-2CD7A85G0-IZ(H)S(2.8-12)（B）