Contents

GV-IP Camera Version History

Firmware V3.22 2020-10-14

Firmware V3.22 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / 1200 / 1210 / 1300 / 1500 / 1501 / 1511 / 2400 / 2410 / 2500 / 2501 / 2510-E / 2511 / 2511-E / 3400 / 3410 / 3411 / 5310 / 5310-E / 5311

- GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX1500-E / 2400-E / 2510-E / 3400-E / 5300-E / 5310-E

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300

- GV-FE420 / 421 / 520 / 521 / 2301 / 2302 / 3402 / 3403 / 4301 / 5302 / 5303

- GV-FER521 / 3402 / 3403 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series / 3400 Series / 5300 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-PT130D / 220D / 320D

- GV-UBL1211 / 1301 Series / 2401 Series / 2411 / 3401 Series / 3411

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 1530 / 1540 / 2400 / 2430 / 2440 / 2500 / 2530 / 2540 / 2540-E / 3400 / 3430 / 3440 / 5340 / 5340-E

Firmware V3.22 does not apply to the following GV-IP Camera models:

- GV-BX120D / 130D / 140DW / 220D / 320D / 520D

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-UNP2500 / UNFE2502 / 2503

- Models installed with a 32 MB NAND flash

Fixed:

- Chances of buffer overflow when using ONVIF discovery

Modified:

- Certain audio codec removed

Firmware V3.21 2020-06-16

Firmware V3.21 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / 1200 / 1210 / 1300 / 1500 / 1501 / 1511 / 2400 / 2410 / 2500 / 2501 / 2510-E / 2511 / 2511-E / 3400 / 3410 / 3411 / 5310 / 5310-E / 5311

- GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX1500-E / 2400-E / 2510-E / 3400-E / 5300-E / 5310-E

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300

- GV-FE420 / 421 / 520 / 521 / 2301 / 2302 / 3402 / 3403 / 4301 / 5302 / 5303

- GV-FER521 / 3402 / 3403 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series / 3400 Series / 5300 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-PT130D / 220D / 320D

- GV-UBL1211 / 1301 Series / 2401 Series / 2411 / 3401 Series / 3411

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 1530 / 1540 / 2400 / 2430 / 2440 / 2500 / 2530 / 2540 / 2540-E / 3400 / 3430 / 3440 / 5340 / 5340-E

- GV-UNP2500 / UNFE2502 / 2503

Firmware V3.21 does not apply to the following GV-IP Camera models:

- GV-BX120D / 130D / 140DW / 220D / 320D / 520D

- GV-CB120 / 220

- GV-CBW120 / 220

- Models installed with a 32 MB NAND flash

Modified:

- Copyright notices accessible on the Web UI

Firmware V3.17 2018-12-13

Firmware V3.17 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / 1200 / 1210 / 1300 / 1500 / 1501 / 1511 / 2400 / 2410 / 2500 / 2501 / 2510-E / 2511 / 2511-E / 3400 / 3410 / 3411 / 5310 / 5310-E / 5311

- GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX1500-E / 2400-E / 2510-E / 3400-E / 5300-E / 5310-E

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300

- GV-FE420 / 421 / 520 / 521 / 2301 / 2302 / 3402 / 3403 / 4301 / 5302 / 5303

- GV-FER521 / 3402 / 3403 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series / 3400 Series / 5300 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-PT130D / 220D / 320D

- GV-UBL1211 / 1301 Series / 2401 Series / 2411 / 3401 Series / 3411

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 1530 / 1540 / 2400 / 2430 / 2440 / 2500 / 2530 / 2540 / 2540-E / 3400 / 3430 / 3440 / 5340 / 5340-E

- GV-UNP2500 / UNFE2502 / 2503

Improved:

- Security-protection for successive firmware files

Modified:

- Built-in GV-WebViewer program updated

- Ability to adjust DST based on a particular day of a week within a month

Fixed:

- Login page failing to display in the language coinciding to as set on Web interface

- Chances of System log freezing

Firmware V3.14 2017-12-06

Firmware V3.14 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / 1200 / 1210 / 1300 / 1500 / 1501 / 1511 / 2400 / 2410 / 2500 / 2501 / 2510-E / 2511 / 2511-E / 3400 / 3401 / 3410 / 3411 / 5310 / 5310-E / 5311

- GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX1500-E / 2400-E / 2510-E / 3400-E / 5300-E / 5310-E

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300

- GV-FE420 / 421 / 520 / 521 / 2301 / 2302 / 3402 / 3403 / 4301 / 5302 / 5303

- GV-FER521 / 3402 / 3403 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series / 3400 Series / 5300 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-PT130D / 220D / 320D

- GV-UBL1211 / 1301 Series / 2401 Series / 2411 / 3401 Series / 3411

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-UNFE2502 / 2503 / UNP2500

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 1530 / 1540 / 2400 / 2430 / 2440 / 2500 / 2530 / 2540 / 2540-E / 3400 / 3430 / 3440 / 5340 / 5340-E

Firmware V3.14 does not apply to the following GV-IP Camera models:

- GV-BX120D / 130D / 140DW / 220D / 320D / 520D

- GV-CB120 / 220

- GV-CBW120 / 220

- Models installed with a 32-MB NAND flash

Fixed:

- A garbled notification message shown when typing a duplicate IP or more than four IP addresses in IP Filter setting

- Certain network security vulnerabilities

Changed:

- PSIA protocol no longer supported

Firmware V3.12 2017-06-19

Firmware V3.12 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / 1200 / 1210 / 1300 / 1500 / 1501 / 1511 / 2400 / 2410 / 2500 / 2501 / 2510-E / 2511 / 2511-E / 3400 / 3401 / 3410 / 3411 / 5310 / 5310-E / 5311

- GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX1500-E / 2400-E / 2510-E / 3400-E / 5300-E / 5310-E

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300

- GV-FE420 / 421 / 520 / 521 / 2301 / 2302 / 3402 / 3403 / 4301 / 5302 / 5303

- GV-FER521 / 3402 / 3403 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series / 3400 Series / 5300 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-PT130D / 220D / 320D

- GV-UBL1211 / 1301 Series / 2401 Series / 2411 / 3401 Series / 3411

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-UNFE2502 / 2503 / UNP2500

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 1530 / 1540 / 2400 / 2430 / 2440 / 2500 / 2530 / 2540 / 2540-E / 3400 / 3430 / 3440 / 5340 / 5340-E

Firmware V3.12 does not apply to the following GV-IP Camera models:

- GV-BX120D / 130D / 140DW / 220D / 320D / 520D

- GV-CB120 / 220

- GV-CBW120 / 220

- Models installed with a 32 MB NAND flash

New:

- Support for the new model: Unicam Fisheye IP Camera (GV-UNFE2502)

- Support for the GV-WiFi USB Adaptor V2 for the following models:
  - GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series
  - GV-MFD1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series
  - GV-FE2302 / 3402 / 5302 / 3403 / 5303

- New access policies added to IP Filter settings to allow or disallow access to the camera

- Subject column and Note column added to the E-mail function to allow users to type the mail subject and mail content

Fixed:

- Motion Detection failure when connected to Hikvision SNVR through ONVIF protocol

- D/N mode of Mini Rugged Dome and Mini Fixed Dome cameras permanently set to Color mode when Auto is selected for Low Lux Enhancement setting

- Metering zone shown in different places after re-logging in

- Camera name unchangeable when connected to Avigilon or Genetec software though ONVIF protocol

Modified:

- Warning messages added to urge the users to change default and weak Administrator username and password

- Password strength shown when changing the password of Administrator or Guest user account

- Preset settings available for GV-IP Cameras with Motorized Varifocal Lens through ONVIF protocol

- Username / password of Administrator / Guest User Account changeable through ONVIF protocol

- Dual streams of GV-IP Cameras available when connected to Genetec VMS

- Authentication needed for access through RTSP server

Firmware V3.10 2016-12-02

Firmware V3.10 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / 1200 / 1210 / 1300 / 1500 / 1501 / 1511 / 2400 / 2410 / 2500 / 2501 / 2510-E / 2511 / 2511-E / 3400 / 3410 / 5310 / 5310-E

- GV-BX1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX1500-E / 2400-E / 2510-E / 3400-E / 5300-E / 5310-E

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300

- GV-FE420 / 421 / 520 / 521 / 2301 / 2302 / 3402 / 3403 / 4301 / 5302 / 5303

- GV-FER521 / 3402 / 3403 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series / 3400 Series / 5300 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-PT130D / 220D / 320D

- GV-UBL1211 / 1301 Series / 2401 Series / 2411 / 3401 Series / 3411

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-UNFE2503 / UNP2500

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 1530 / 1540 / 2400 / 2430 / 2440 / 2500 / 2530 / 2540 / 2540-E / 3400 / 3430 / 3440 / 5340 / 5340-E

Firmware V3.10 does not apply to the following GV-IP Camera models:

- GV-BX120D / 130D / 140DW / 220D / 320D / 520D

- GV-CB120 / 220

- GV-CBW120 / 220

- Models installed with a 32 MB NAND flash

Fixed:

- The problem where the algorithm of UPnP causes IP Cameras to send out excessive packet

Improved:

- The user interface with a new blank field for users to type CBR bit rate value

Firmware V3.06 2015-12-25

Firmware V3.06 applies to the following GV-IP Camera models

- GV-BL1500 / 2500 / 1501 / 2501 / 1511 / 2511 / 2511-E

- GV-BX1500 Series / 2500 Series

- GV-BX1500-E / 2510-E

- GV-FD1500 / 2500 / 1510 / 2510

- GV-MDR1500 Series

- GV-MFD1501 Series / 2501 Series

- GV-VD1500 / 2500 / 1530 / 2530 / 1540 / 2540 / 2540-E

- GV-UNP2500, GV-UNFE2503

New:

- Support for the new model: IR Fisheye Camera (GV-UNFE2503)
- ONVIF motion alarm event and pullpoint event filter
- Support for using a device input to trigger D/N mode

Improved:

- Temporary image exposure or darkening after long-time use for GV-UNP2500

- Image issue with jagged edge at CIF resolution for all the applicable models except GV-UNFE2503

Firmware V3.0 2015-04-23

Firmware V3.0 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / GV-BL1200 / 1300 / 1500 / 2400 / 2500 / 3400 / 1210 / 2410 /3410 / 5310 / 2510-E / 5310-E

- GV-BX1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX1500-E / 2400-E / 3400-E / 5300-E / 2510-E / 5310-E

- GV-CA120 / 220 and GV-CAW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1500 / 2400 / 2500 / 3400 / 5300 / 1210 / 1510 / 2410 / 2510 / 3410

- GV-FE420 / 421 / 520 / 521 / 2301 / 4301 / 2302 / 3402 / 3403 / 5302 / 5303

- GV-FER3402 / 3403 / 521 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series / 3400 Series / 5300 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-PT130D / 220D / 320D

- GV-UBL1211 / 2411 / 3411 / 1301 Series / 2401 Series / 3401 Series

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 2400 / 2500 / 3400 / 1530 / 2430 / 2530 / 3430 / 1540 / 2440 / 2540 / 3440 / 5340 / 2540-E / 5340-E

Firmware V3.0 does not apply to the following GV-IP Camera models:

- GV-BX120D / 130D / 140DW / 220D / 320D / 520D

- GV-CB120 / 220

- GV-CBW120 / 220

- Models installed with a 32 MB NAND flash

New:

- Support for the following models:
    - GV-BX2510-E and GV-BX5310-E
    - GV-VD2500
    - P-Iris for GV-BX1500-3V / 2500-3V / 3400-3V / 5300-6V
- Support for Preset Set and Preset Go functions for models equipped with motorized varifocal lens
- Support for recording to GV-NAS Systems, provided that the camera adhere to the following settings:
    - VBR is set to "Good"
    - Maximal Bit Rate is set to "6" Mbit or lower for 1.3 MP models, and "8" Mbit or lower for 2 MP, 3 MP, 4 MP, and 5 MP models
- Support for motion and audio settings using CGI SDK command
- Support for a new DDNS server "gvdip.com"
- Support for dual streams in GeoVision Fisheye Cameras
- Support for the following functions through ONVIF
    - WDR, BLC
    - Device searching
    - PTZ control (of GV-PTZ Series and models equipped with motorized varifocal lens)
- Support for ONVIF test tool version 14.06
- Support for new image orientation options, "Rotate 90" and "Rotate 270"
- Support for H.264 video codec CABAC encoding
- Support for text overlay by on-screen display which are viewable through GeoVision software or third-party software through ONVIF and RTSP connection
- Support for continuously sending of captured images to the FTP server
- Support for UMTS protocol (3G Modem)

Brand	Model
Huawei	E220, E392
	E169, E1692, E156, EC189, E1752, E1756, E1756C, E169C
Novatel	MC998D
	USB760, USB727, MC950D

ONDA	MSA523HS
ZTE	MF100

Fixed:

- Possible disruption of file time for files recorded during DST periods

- SSLv3 flaw in OpenSSL library

- Interruption of file backup from GV-Backup Center when the backup is carried out to the next day or next month

- Issue of live view closing when the resolution is set to 448 x 252 and a region for Privacy Mask (under ROI Settings, for GV-IP Cameras connected to third-party software through ONVIF/RTSP) touches the edge of the live view

- Distorted image size when PIP is enabled in full screen

- Issue of frame skipping when any of the following scenarios occur:

  - files are being recycled on the inserted memory card during motion events

  - motions are triggered immediately after post-alarm recording ends

- Possible live view lag for:

  - GV-IP Cameras that are set to 1920 x 1080, dual streams

  - 4 M GV-Fisheye Cameras

- Interruption of recording when the GV-IP Camera time is 2000/01/01, monitoring is enabled and the Synchronized with Network Time Server is activated

- Network interruption when the camera is connected to the network through PPPoE and that the camera's date and time have been configured to synchronize automatically with a Network Time Server

Improved:

- Firmware upgrade which can now prevent hardware failure when the upgrade fails

- Import setting of GV-IP Device Utility where settings can be imported without changing the device name

- Frame rate options which are changed from 8 options ("2", "3", "5", "6", "10", "15", "20", and "30") to 15 or 30 options ("1" to "15" or "to "30")

- Default maximum frame rate for VBR which is now changed to 12 Mbit for all 3 M, 4 M, and 5 M models

- Tampering Alarm function where the Alarm for Dark Images option is now enabled by default when the Tampering Alarm function is enabled

- D/N mode settings which now also includes "Auto" and "B/W" options when the Super Low Lux is set to "Auto" (for GV-MFD1501 Series / 2501 Series and GV-MDR1500 Series only)

- Denoise functionality for levels 2 to 10

- FTP settings where the user can select between the active or the passive mode

- Web interface language setting where the language options are now shown in its corresponding language instead of English

- Wordings for the Slovakian version of the Web interface

Firmware V2.15 2014-11-07

Firmware V2.15 applies to the following GV-IP Camera models:

- GV-BX120D / 140DW

- GV-BX120D-E

Fixed:

- Possible failure to detect connected input and output devices (for GV-BX120D and GV-BX140DW)

Improved:

- Image brightness which was previously dimmer (for GV-BX120D and GV-BX120D-E)

Firmware V2.14 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / GV-BL1200 / 1300 / 1500 / 2400 / 2500 / 3400 / 1210 / 2410 / 3410 / 5310 / 2510-E / 5310-E

- GV-BX130D Series / 220D Series / 320D Series / 520D / 1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 5300-E

- GV-CA120 / 220 and GV-CAW120 / 220

- GV-CB120 / 220 and GV-CBW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1500 / 2400 / 2500 / 3400 / 5300 / 1210 / 1510 / 2410 / 2510 / 3410

- GV-FE420 / 421 / 520 / 521 / 2301 / 4301 / 2302 / 3402 / 3403 / 5302 / 5303

- GV-FER3402 / 3403 / 521 / 5302 / 5303

- GV-MDR120 / 220 / 320 / 520 / 1500 Series

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-UBL1211 / 2411 / 3411 / 1301 Series / 2401 Series / 3401 Series

- GV-UBX1301 Series / 2301 Series / 3301 Series

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-VD1500 / 2400 / 3400 / 1530 / 2430 / 2530 / 3430 / 1540 / 2440 / 2540 / 3440 / 5340 / 2540-E / 5340-E

New:

- Support for the following new models:
    - Bullet Camera (GV-BL2510-E / 5310-E)
    - Bullet Camera (GV-BL1500 / 1510 / 2500 / 2510 / 3400 / 3410 / 5310 with P-Iris)
    - Fixed IP Dome (GV-FD1500 / 1510 / 2500 / 2510 / 3400 / 3410 with P-Iris)
    - Mini Fixed Rugged Dome (GV-MDR3400 Series / 5300 Series)
    - Vandal Proof IP Dome (GV-VD2500)
- GV-IP Device Utility
    - Support for an import feature with which users can choose to import the device name or not
    - Support for password change
- Support for Push-to-Talk (for Advanced Cube Camera, cube Camera and Fisheye Camera only)
- Support for Recording Profile function with which recording bitrate is kept at 4 Mbit (at maximum) and Sharpness value at 30 to ensure reasonable amount of data writing to the memory card
- Support for image denoising and exposure metering

Fixed:

- Live view where objects appear stripped along the edges when the image orientation is set to "Horizontal Mirror" or "Rotate 180" and the camera is under low light conditions (for Fisheye Camera only)
- Quality discrepancy on live view between WDR enabled and disabled conditions (for models equipped with WDR Pro)
- Abnormal switch between day mode and night mode for cameras that require frequent mode change
- Possible backup omission from GV-Backup Center

Improved:

- Memory card recording stability

- Speaker audio quality (Advanced Cube Camera and Cube Camera only)

- Sharpness and clarity of moving objects on live view

- Jagged edges of objects on live view

- Precision of auto focus (for models equipped with motorized varifocal lens)

Modified:

- Default WDR setting from "Auto (Normal)" to "Close" (except for models equipped with WDR Pro)

- Default Defog setting from "Auto" to "Close"

- Sharpness setting to be automatically adjusted based on the Video Quality setting:

Video Quality Setting	Sharpness
Excellent	60
Great	40
Good	50

- Shutter Speed setting where the Slowest Shutter Speed is changed from "1/15" to "1/30" when the Shutter Speed is set to "Auto" (for models equipped with WDR Pro)

- Default GOP value from "0.25" to "1" second (for Fisheye Camera only)

- Default video resolution from "2560 x 1920" to "2048 x 1944" (for GV-FE5302 / 5303 and GV-FER5302 / 5303 only)

- Video slice mode setting where the "Multi Slice" option is no longer supported

- GPS Maps setting which is no longer supported

- System log function which is no longer supported

Firmware V2.12 2014-06-07

Firmware V2.12 applies to the following GV-IP Camera models:

- GV-BL5310

- GV-FD1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300

- GV-FE2302 / 2303 / 3402 / 3403 / 4302 / 4303 / 5302 / 5303

- GV-FER3402 / 3403 / 5302 / 5303

- GV-MDR1500 / 2400 / 2500 / 3400 / 5300 Series

- GV-VD5340 / 5340-E

New:

- Support for the following new models:
    - Fisheye Camera (GV-FE2302 / 2303 / 3402 / 3403 / 4302 / 4303 / 5302 / 5303)
    - Fisheye Rugged Camera (GV-FER3402 / 3403 / 5302 / 5303)
    - Mini Fixed Rugged Dome (GV-MDR1500 / 2400 / 2500 / 3400 / 5300 Series)
- Support for motion detection settings through the CGI SDK Command

Fixed:

- Interruption of file transfer (backup) from GV-IP Camera to GV-Backup Center
    - File transfer stops from 01:00 am if the schedule for GV-Backup Center has been set across two days
    - File transfer is not resumed if GV-IP Camera and GV-Backup Center disconnect with each other during the backup process and are only re-connected on the next day
- Jagged edges of objects on live view when the scene contains contrasting intensity of lights and the Image Orientation is set to "Horizontal Mirror" or "Rotate 180" (GV-BL5310, GV-VD5340 / 5340-E)
- Constant switch between the day mode and night mode due to the presence of large amount of IR lights in the scene

Midified:

- Parameters for iris IC (GV-FD1200 / 1210 / 1500 / 1510 / 2400 / 2410 / 2500 / 2510 / 3400 / 3410 / 5300) to reduce errors

- Optical parameters for more accurate detection of light volume and hence refining the day/night mode function (GV-BL5310 and GV-VD5340 / 5340E)

Firmware V2.111 2014-06-19

Firmware V2.111 applies to the following GV-IP Camera models:

- GV-PT130D / 220D / 320D

New:

- Support for PTZ functionality through ONVIF
- Support for recurring Auto Pan and Sequence movements

Fixed:

- Disruption of image quality settings (Camera Adjustment) in which these values are changed to 0 when the camera connects to a third-party NVR through ONVIF and when the camera resumes from power failure or is rebooted

Firmware V2.11 2014-02-14

Firmware V2.11 applies to the following GV-IP Camera models:

- GV-BL120D / 130D / 220D / 320D / 1200 / 1300 / 1500 / 2400 / 2500 / 3400 / 1210 / 2410 / 2510 / 3410 / 5310

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 2500 Series / 3400 Series / 5300 Series

- GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 5300-E

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1500 / 2400 / 2500 / 3400 / 5300 / 1210 / 1510 / 2410 / 2510 / 3410

- GV-FE2301 / 420 / 421 / 4301 / 520 / 521

- GV-FER521

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 2501 Series / 3401 Series / 5301 Series

- GV-MDR120 / 220 / 320 / 520

- GV-PT130D / 220D / 320D

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D / 1500 / 2400 / 2500 / 3400 / 1530 / 2430 / 2530 / 3430 / 1540 / 2440 / 2540 / 3440 / 5340 / 1540-E / 2440-E / 2540-E / 3440-E / 5340-E

- GV-UBL1211 / 1511 / 2411 / 2511 / 3411 / 1301 Series / 2401 Series / 3401 Series

- GV-UBX1301 Series / 2301 Series / 3301 Series

New:

- Support for the following new models:
    - Box Camera (GV-BX2500 Series)
    - Bullet Camera (GV-BL2500 / 2510)
    - Fixed IP Dome (GV-FD2500 / 2510)
    - Mini Fixed Dome (GV-MFD2501 Series)
    - Ultra Bullet Camera (GV-UBL2511)
    - Vandal Proof IP Dome (GV-VD1530 / 1540 / 1540-E / 2430 / 2440 / 2440-E / 2500 / 2530 / 2540 / 2540-E / 3430 / 3440 / 3440-E / 5340 / 5340-E)
- Support for Internet Explorer 11
- Support for RTSP through CGI SDK Command

Fixed:

- Shutter speed setting which changes to "Auto" after refreshing the web page when it has been previously set as "Auto (High Speed Mode)"
- Maximum bit rate and frame per second settings which do not synchronize when the codec and resolution settings are changed on a connected GV-System
- Failure of GV-System to automatically detect a GV-IP Camera and the possibility of popping out the window for ONVIF connection at the same time
- Constant switch between day mode and night mode under low-light scenes (GV-BX1500 Series)
- Huge recording size and possible live view failure when the camera is set to 2 fps and 0.25 sec (GOP)
- Upgrade failure of bootloader (for firmware upgrade of version 2.00 and earlier to version 2.10)

Improved:

- Authenticity of live view (oversharpness of GV-BL1500, GV-BX1500 Series, GV-BX1500-E, GV-MFD1501 Series)

- Pinkish tone on the sky part of outdoor scenes (GV-BL2400 / 2410 / 3400 / 3410, GV-BX2400 Series / 3400 Series, GV-BX2400-E / 3400-E, GV-MFD2401 Series / 3401 Series / GV-FD2400 / 2410 / 3400 / 3410, GV-UBL2411 / 3411, and GV-VD2400 / 3400 only)

- Live view brightness under low-light scenes (GV-BL1300 / 5310, GV-BX1300 Series / 5300 Series, GV-BX5300-E, GV-FD5300, GV-MFD5301 Series, GV-UBL1301 Series and GV-UBX1301 Series / 2301 Series / 3301 Series only)

- Jagged edges of objects on live view

- Blockish live view (All 5 MP GV-IP Camera or all GV-IP Camera connected through ONVIF/RTSP)

Modified:

- Default setting of Video Slice Mode from "Auto" to "Single"

- Wording on German interface

Firmware V2.09 2013-11-07

Firmware V2.09 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 220D Series / 320D Series / 520D

- GV-BX1200 Series / 1300 Series / 1500 Series / 2400 Series / 3400 Series / 5300 Series

- GV-BX120D-E / 220D-E / 320D-E / 520D-E / 1500-E / 2400-E / 3400-E / 5300-E

- GV-BL120D / 130D / 220D / 320D / 1200 / 1300 / 1500 / 2400 / 3400 / 1210 / 2410 / 3410 / 5310

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D / 1200 / 1500 / 2400 / 3400 / 5300 / 1210 / 1510 / 2410 / 3410

- GV-FE2301 / 420 / 421 / 4301 / 520 / 521

- GV-FER521

- GV-MFD120 / 130 / 220 / 320 / 520 / 1501 Series / 2401 Series / 3401 Series / 5301 Series

- GV-MDR120 / 220 / 320 / 520

- GV-PT130D / 220D / 320D

- GV-VD120D / 121D / 122D / 123D

- GV-VD220D / 221D / 222D / 223D

- GV-VD320D / 321D / 322D / 323D

- GV-VD1500 / 2400 / 3400

- GV-UBL1211 / 1511 / 2411 / 3411 / 1301 Series / 2401 Series / 3401 Series

- GV-UBX1301 Series / 2301 Series / 3301 Series

New:

- Support for the following new models:

    - Fixed IP Dome (GV-FD1500 / 1510)

    - Mini Fixed Dome (GV-MFD1501-0F and GV-MFD2401 Series / 3401 Series / 5301 Series)

    - Ultra Bullet Camera (GV-UBL1511)

    - Vandal Proof IP Dome (GV-VD1500)

- Support for the following functions through CGI commands

  - Camera login

  - Configuration on IP address, password, video settings and camera name

  - Live view snapshot

  - Restoration to factory default settings

  - Firmware upgrade (for 128 MB NAND flash models)

- Support for Region of Interest (ROI) which is used to define clarity and set privacy masks for cameras connecting to third-party software through ONVIF/RTSP

- Support for 2 more streaming options (3 fps and 5 fps)

Fixed:

- Encoding efficiency for recording stability

- Possible disconnection to GV-DVR/NVR V8.5.7 through ONVIF

- Possible failure of firmware upgrade when the camera is connected by multiple devices and set to record to its storage device

- Possible recording interruption for motion detection mode

- Incorrect recording length which occurs for the first file saved to the camera's storage device

- Possible false detection of motions under extremely low-light (for GV-BX1500)

- Disruption of frame rate setting which changes to 2 fps when the camera is upgraded from version 1.09 to 2.07

- Possible change of wireless MAC address after reboot when the camera works with GV-WiFi adapter (for GV-BX1200 series / 1300 series / 2400 series / 3400 series / 5300 series and GV-MFD1501 Series)

- Inability to detect wireless access points (for GV-CBW120/220 with 32 MB NAND Flash)

- Live view display problem when the camera focus is set to Regional Scan (for motorized varifocal lens models)

- Live view ghosting under low light when the Super Low Lux function is enabled (for GV-BX1500, GV-BX1500-E, GV-BL1500, GV-MFD1501)

- Disruption of live view due to frame skipping when the live view is recorded upon motion and saved to the camera's storage device

- Smoothness of live view (for dual-stream, 720p/1.3 MP/2 MP)

- Functioning of live view dewarping (for GV-FE2301)

- Possible green live view of GV-IP Camera on GV-Decoder Box

Modified:

- Support for ONVIF Test Tools V12.12

- Default maximal bitrate for Variable Bitrate (VBR) as follows:

GV-IPCam H.264		Max. bitrate for VBR
1.3 MP	Stream 1	6 Mbit
	Stream 2	2 Mbit
2 MP	Stream 1	8 Mbit
	Stream 2	2 Mbit
3 MP	Stream 1	12 Mbit
	Stream 2	2 Mbit
4 MP	Stream 1	16 Mbit
5 MP	Stream 1	20 Mbit
	Stream 2	2 Mbit

- Stream 1 resolution options where VGA and CIF options are added

- Stream 2's default resolution setting which is changed from Close to CIF

- Default Noise Tolerance setting (Motion Detection) to Enabled

- Default D/N sensitivity setting which is changed to 3 (for GV-BX120D / BL1200 / FD120D / FD1200 / FD1210 / MDR120 / MFD120 / UBL1211 / VD120D)

- GV-FE2301 resolution which is changed from 1200 x 1136 to 1280 x 1200

Firmware V2.08 2013-08-07

Firmware V2.08 applies to the following GV-IP Camera models:

- GV-BX1500 Series

- GV-BX1500-E

- GV-BL1500

- GV-MFD1501 Series

New:

- Support for the following new models:

    - Arctic Box Camera (GV-BX1500-E)

    - Box Camera (GV-BX1500 Series)

    - Bullet Camera (GV-BL1500)

    - Mini Fixed Dome (GV-MFD1501 Series)

- Support for super low lux function which enhances the live view under insufficient light

Modified:

- Default value for VMR's (Variable Bitrate) maximal bitrate, which is changed from Auto to 6 MB

Firmware V2.07 2013-06-13

Firmware V2.07 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX1200 Series / 1300 Series / 2400 Series / 3400 Series / 5300

- GV-BX120D-E / 220D-E / 320D-E / 520D-E

- GV-BX2400-E / 3400-E / 5300-E

- GV-BL120D / 130D / 220D / 320D

- GV-BL1200 / 1300 / 2410 / 3410

- GV-BL1210 / 2410 / 3410 / 5310

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-FD1200 / 2400 / 3400 / 5300

- GV-FD1210 / 2410 / 3410

- GV-FE2301 / 420 / 421 / 4301 / 530 / 521

- GV-FER521

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-MDR120 / 220 / 320 / 520

- GV-VD120D / 121D / 122D / 123D GV-VD220D / 221D / 222D / 223D GV-VD320D / 321D / 322D / 323D

- GV-UBL1211 / 2411 / 3411

- GV-UBL1301 Series / 2401 Series / 3401 Series

- GV-UBX1301 Series / 2301 Series / 3301 Series

New:

- Support for the following new models:

    - Arctic Box Camera (GV-BX2400-E / 3400-E / 5300-E)

- Support for digital PTZ for non-PTZ cameras

- Support for external USB hard drive (for GV-BX1200 Series / 1300 Series / 2400 Series / 3400 Series / 5300). Mind the following limitations and requirements:

    - The USB hard drive must be of 2.5" or 3.5", version 2.0 or above

    - The USB hard drive's storage capacity must not exceed 2TB

    - USB flash drives and USB hubs are not supported

    - External power supply is required for the USB hard drive

- Support for the following functions through ONVIF:

    - Motion detection

    - Frame rate settings and quality

    - Dual streaming

    - GOP settings

    - I/O trigger

- Support for ONVIF Profile S

Fixed:

- Possible disconnection with certain wireless routers when the camera is encrypted using WAP, WPA or WPA2 (for GV-CBW120 / 220 and GV-CAW120 / 220)

- Temporary frozen live view when there is a motion (for all GV IP cameras except GV-BX520D, GV-BX520D-E, GV-BL5310, GV-FE420 / 421 / 4301 / 520 / 521, GV-FER521, GV-MFD520 and GV-MDR520)

- Live view quality in low-light environments where the image becomes purplish (for GV-BL2400 / 2410 / 3400 / 3410, GV-BX2400 Series / 3400 Series and GV-UBL2411 / 3411 / 2401 Series / 3401 Series)

- Possible disconnection and resumption of live view due to encoding errors

- Live view throbbing when CBR (Constant Bitrat) is set to 4 MB or below

Improved:

- Waiting time for live view for new login

- Frame rate settings in which the 20 fps option is added (only for 1.3 MP and 2 MP models)

- Recording efficiency and stability in which the recorded files remains accessible when power is disrupted during monitoring (recording)

- Live view quality by increasing the frame rate when the camera is accessed by multiple systems through ONVIF or RTSP

- Live view quality in which the contrast value is adjusted to better represent the actual scene (for GV-BX520D, GV-BX520D-E, GV-BL5310, GV-FE520/521, GV-FER521, GV-MFD520 and GV-MDR520)

- Live view quality where the image becomes bluish when it enters night mode at outdoor scenes (for GV-BL2400 / 2410 / 3400 / 3410, GV-BX2400 Series / 3400 Series and GV-UBL2411 / 3411 / 2401 Series / 3401 Series)

- Live view quality where the image becomes bluish when the Flick-Less is set to 50 Hz and the scene is illuminated with intense yellow light

- Wide Dynamic Range functionality in which the internal algorithm is adjusted to enhance the effect

Modified:

- Storage mechanism, for which the user, after device firmware upgrade, now needs to first back up the data stored in the SD card and format the SD card before recording again

- GOP and frame rate per second settings in which the GOP setting automatically changes to a specific value as the frame rate per second setting changes

- Stream 1 resolution settings which all VGA and CIF resolution options are removed

- Stream settings for GV-Video Gateway and GV-Recording Server in which the stream 2 option is removed

- ViewLog server setting in which the ViewLog service is now enabled by default

- Recording setting in which the Continue recording to the local storage option is enabled by default

- Maximum number of RTSP / 3GPP connection to the camera, which is changed from 10 to 8

- Default audio setting of RTSP, which is now enabled

Firmware V2.06 2013-06-01

Firmware V2.06 applies to the following GV-IP Camera models:

- GV-FD1200 / 1210 / 2400 / 2410 / 3400 / 3410 / 5300

- GV-PT130D / 220D / 320D

Firmware V2.05 2013-03-23

Firmware V2.05 applies to the following GV-IP Camera models:

- GV-BL1200 / 1300 / 2400 / 3400 / 1210 / 2410 / 3410 / 5310

- GV-UBL1211 / 2411 / 3411 / 1301 Series / 2401 Series / 3401 Series

- GV-UBX1301 Series / 2301 Series / 3301 Series

New:

- Support for the following new models:

    - Ultra Bullet Camera with motorized varifocal lens (GV-UBL1211 / 2411 / 3411)

    - Ultra Bullet Camera with fixed lens (GV-UBL1301 Series / 2401 Series / 3401 Series)

Fixed:

- White balance function which may generate scenes that are reddish (for GV-BL2400 / 2410 / 3400 / 3410)

- WDR function which may generate scenes that are bluish (for GV-UBX1301 Series / 2301 Series / 3301 Series)

- Focus Change, Focus Mode and Day Night Focus functions which are disrupted when the same computer has been used to access a GV IP Camera of firmware V2.01 or V2.03 (for GV-BL1210 / 2410 / 3410 / 5310)

- Possible flickering on live view when there are moving objects in an outdoor scene (for GV-BL2410 / 3410 / 2400 / 3400)

Firmware V2.04 2013-01-16

Firmware V2.04 applies to the following GV-IP Camera models:

- Bullet Camera (GV-BL2400/3400)

- Motorized Bullet Camera (GV-BL1210/2410/3410/5310)

- Ultra Box Camera (GV-UBX1301/2301/3301)

Firmware V2.03 2012-12-27

Firmware V2.03 applies to the following GV-IP Camera models:

- Bullet Camera (GV-BL1200 / 1300)

- Fisheye Camera (GV-FE2301 / 4301)

Firmware V2.02 2012-11-20

Firmware V2.02 applies to the following GV-IP Camera models:

- GV-FE420 / 421 / 520 / 521

- GV-FER521

Improved:

- Support for GPU dewarping of fisheye view to decrease CPU loading

Firmware V2.01 2012-11-19

Firmware V2.01 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX2400 Series / 3400 Series

- GV-BX120D-E / 220D-E / 320D-E / 520D-E

- GV-BL120D / 130D / 220D / 320D

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-MDR120 / 220 / 320 / 520

- GV-VD120D / 121D / 122D / 123D GV-VD220D / 221D / 222D / 223D GV-VD320D / 321D / 322D / 323D

Improved:

- Camera system loading which is reduced when the device is accessed over a long period of time (for GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series, GV-BX120D-E / 220D-E / 320D-E, GV-CB120 / 220 and GV-CBW120 / 220 only)

Changed:

- Wide Angle Lens Dewarping function which is not supported on the camera's Web interface but can be activated from other GeoVision programs

Firmware V2.0 2012-10-05

Firmware V2.0 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX2400 Series / 3400 Series

- GV-BX120D-E / 220D-E / 320D-E / 520D-E

- GV-BL120D / 130D / 220D / 320D

- GV-CA120 / 220

- GV-CAW120 / 220

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-FER521

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-MDR120 / 220 / 320 / 520

- GV-VD120D / 121D / 122D / 123D GV-VD220D / 221D / 222D / 223D GV-VD320D / 321D / 322D / 323D

New:

- Support for ONVIF

Fixed:

- Possible failure of firmware upgrade when the audio function is enabled

- Possible failure of the IR-cut filter to switch between day mode and night mode when the camera is connected to GV-System

Modified:

- Codec options in which the MPEG4 option in removed

Firmware V1.15 2012-08-30

Firmware V1.15 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX120D-E / 220D-E / 320D-E / 520D-E

- GV-BL120D / 130D / 220D / 320D

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-FER521

- GV-VD120D / 121D / 122D / 123D GV-VD220D / 221D / 222D / 223D GV-VD320D / 321D / 322D / 323D

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-MDR120 / 220 / 320 / 520

New:

- Support for new camera models, including:

  - Box Camera (GV-BX1200 Series, GV-BX1300 Series, GV-BX2400 Series, GV-BX3400 Series and GV-BX5300)

  - Advanced Cube Camera (GV-CA120 / 220) and Wireless Advanced Cube Camera (GV-CAW120 / 220)

- Support for Wide Dynamic Range settings (except GV-BX140DW)

- Support for image defogging (except GV-BX140DW)

- Support for storing log information to an inserted memory card

Fixed:

- Possible scrambled texts on the Web interface using IE browser Version 6 when the language is changed from the Web interface

- Connection issue of Qnap devices to GV-IP Camera through PSIA

- Possible failure of detecting an inserted memory card when the GV-IP Camera has been recording over a period of time

- Possible resumption failure of GV-IP Camera live view on third-party NVR system if the GV-IP Camera is connected to the system through RTSP

Improved:

- The effect of Wide Dynamic Range Pro (WDR Pro) with which human faces are seen more clearly (for GV-BX140DW only)

- Audio codec functionality which is now configurable through PSIA

- The repair function for the inserted Micro SD Card

Firmware V1.14 2012-07-03

Firmware V1.14 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX120D-E / 220D-E / 320D-E / 520D-E

- GV-BL120D / 130D / 220D / 320D

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-FER521

- GV-VD120D / 121D / 122D / 123D GV-VD220D / 221D / 222D / 223D GV-VD320D / 321D / 322D / 323D

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-MDR120 / 220 / 320 / 520

New:

- Support for the high speed automatic shutter mode

- Support for recording to the camera's local storage device when its live view is accessed through its Web interface or when the camera is connected to the GV-System

- Support for Mobile Connection mode which maintains the frame rate at 15 fps with VGA resolution and MJPEG codec

- Support for language change from the Web interface

- Support for the 2 M (1440 x 1376) resolution option (only for GV-FE420 / 421)

- Support for live view buffer

Fixed:

- Possible recording failure when the monitoring function is disabled and enabled several times in a short period of time

- Possible failure of motion detection when both the motion detection and input alarm are enabled

- Possible detection failure of SD card

- Incorrect display of device name when connected by third-party DVR software through PSIA protocol

- False monitoring time when the Recording Schedule (Camera and/or I/O Monitoring) is set to Only Sunday

- Recording Schedule setting in which the Special Day 08. option fails to function

- Zigzagged live view when the camera resolution is set to CIF (320 x 240)

- IR mode switch problem in which the IR fails to switch from the night mode to day mode

Modified:

- GOP options which are changed from the number of frame to length of time

- D/N sensitivity options which are changed from 5 level (1 ~ 5) to 11-level (0 ~ 10)

- Default sensitivity value for motion detection which is changed from 5 to 9

Improved:

- Response speed of Automatic Exposure control when the camera switches between day and night

- Flickering live view in scenes with dark background and brighter foreground

- White balance functioning which generates greenish live view in low light conditions (for GV-CB120/220 and GV-BX130D)

- White balance functioning which generates greenish live view (for GV-BX140DW)

- Image clarity in low-light conditions

Firmware V1.13 2012-06-12

Firmware V1.13 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX120D-E / 220D-E / 320D-E / 520D-E

- GV-BL120D / 130D / 220D / 320D

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-FER521

- GV-VD120D / 121D / 122D / 123D

- GV-VD220D / 221D / 222D / 223D

- GV-VD320D / 321D / 322D / 323D

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-MDR120 / 220 / 320 / 520

Improved:

- Support for 128 MB NAND flash memory of new process technology

Firmware V1.11 2012-05-14

Firmware V1.11 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 140DW / 220D Series / 320D Series / 520D

- GV-BX120D-E / 220D-E / 320D-E / 520D-E

- GV-BL120D / 130D / 220D / 320D

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-FER521

- GV-VD120D / 121D / 122D / 123D

- GV-VD220D / 221D / 222D / 223D

- GV-VD320D / 321D / 322D / 323D

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-MDR120 / 220 / 320 / 520

New:

- Support for RTSP Authentication with which the camera's ID and password are required when accessing the live view through RTSP

- Support for system log query with which event information are sorted and displayed

- Support for network connection check with which the camera automatically reboots when it is disconnected form the Internet

- Support for GV-SDCard Sync Utility which is used to remotely retrieve and play back files recorded on SD Card

Fixed:

- Incorrect camera status as recording when the inserted SD card has actually been locked and recording is not taking place

- Possible backup failure when the camera is connected to GV-Backup Center for more than two days

- Possible connection failure to GV-Backup Center if the camera has been re-connected to the GV-Backup Center for several times

- Device name display error in network device table (with UPnP enabled)

- SD card recording failure upon entering the DST time

- Possible access failure of the Web interface when the date setting is changed to any time before the year 2000, and is changed back to the current date

- Incomplete notification message when a tampering alarm event occurs

- Possible failure of sending notification messages to GV-Center V2 server and VSM server

- Possible failure of sending notification messages to remote applications when the remote connections to camera are established within a succession of motion events

- Possible error with GV-IP Device Utility in which IP devices cannot be detected when anti-virus software is used

- False motion detection after the camera resolution is switched from 4:3 or 5:4 to 16:9

- Possible IP address conflict caused by failure of camera to request for DHCP lease renewal

Modified:

- Default speaker volume which is adjusted higher (for GV-FE420 / 421 / 520 / 521 and GV-FER521)

Improved:

- Procedure for loading default settings
- Automatic reset of the TV-out setting when the output image fails to display

Firmware V1.09 2012-01-02

Firmware V1.09 applies to the following GV-IP Camera models:

- Box Camera - GV-BX120D/130D/220D/320D/520D

- Bullet Camera - GV-120D/BL130D/BL220D/320D

- Vandal Proof Dome - GV-VD120D/220D/320D

- Fixed Dome - GV-FD120D/220D/320D

- Mini Fixed Dome - GV-MFD120D/130/220/320/520

- Fisheye Camera - GV-FE420/421/520/521

- Cube Camera - GV-CB120/220, CBW120/220

New:

- Supports the GV-IP Cameras with 32 MB and 128 MB flash memory

Firmware V1.08 2011-12-30

Firmware V1.08 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 220D Series / 320D Series / 520D

- GV-BL120D / 130D / 220D / 320D

- GV-CB120 / 220

- GV-CBW120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-VD120D / 121D / 122D / 123D

- GV-VD220D / 221D / 222D / 223D

- GV-VD320D / 321D / 322D / 323D

- GV-MFD120 / 130 / 220 / 320 / 520

Fixed:

- Failure of turning IR Light off in GV-BL, GV-VD and GV-FD series

Firmware V1.07 2011-12-20

Firmware V1.07 applies to the following GV-IP Camera models:

- GV-BX120D / 130D Series / 220D Series / 320D Series / 520D

- GV-BL120D / 130D / 220D / 320D

- GV-CB120 / 220

- GV-CBW120 / 220 (brand-new)

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-VD120D / 121D / 122D / 123D GV-VD220D / 221D / 222D / 223D GV-VD320D / 321D / 322D / 323D

- GV-MFD120 / 130 / 220 / 320 / 520

New:

- Support for electronic day and night function in GV-CB120 / 220 and GV-MFD120 / 130 / 220 / 320 / 520

- Support for intelligent motion detection function with which environmental conditions (e.g. rain and snow) and noise can be ignored

- Support for Google Chrome, Mozilla Firefox and Safari

- Support for 12 new languages on Web interface, including Bulgarian, Dutch, Greek, Indonesian, Lithuanian, Norwegian, Persian, Romanian, Slovakian, Slovenian, Thai and Turkish

- Support for disabling setting of IR lights in Fixed IP Dome and Vandal Proof IP Dome

- Support for saturation adjustment on live view

- Support for RTSP streaming over HTTP

Fixed:

- Overexposure or blackout issue on live view when auto iris function is enabled

- Issues of unknown lines on live view when there is intense light around these camera models: GV-BX130D / 220D / 320D / 520D, GV-BL130D / 220D / 320D, GV-CB120 / 220, GV-FD220D / 320D, GV-FE420 /421 / 520 / 521, GV-VD220D / 221D / 222D / 223D, GV-VD320D / 321D / 322D / 323D, and GV-MFD130 / 220 / 320 / 520

- Noise on darker areas of live view

- Noise on bottom of live view when the camera is set to 448 x 252 and MJPEG

- Unsmooth images on Live view and recording video under high bitrate environment or when scenes involve moving objects

- FTP upload failure when the camera is connected to the local LAN

- Network connection failure if the power supply had been disrupted during reboot

Modified:

- RTSP default setting which is now set as enabled

- Naming of a Variable Bitrate setting in which the option name Poor is changed to Standard

- Default network connection mode in which the previous connection mode, static IP connection with default IP address 192.168.0.10 is now changed to DHCP connection

- Motion detection setting in which the default detection area is removed

Improved:

- PSIA with which Milestone 8.0b is supported

- Motion detection settings in which the sensitivity options are changed from three to ten

- Image adjustment settings (brightness, contrast, saturation, sharpness and gamma) in which the adjustment levels are increased to 100

- Overlaid text size

- Abnormal lighting on live view when IR LED are on (for Bullet Camera, Vandal Proof IP Dome and Fixed IP Dome only)

- Live view quality in outdoor scenes

- Camera parameters to lower the bitrate and decrease file size

Firmware V1.06 2011-09-15

Firmware V1.06 applies to the following GV-IP Camera models:

- GV-BX120D / 130D / 220D Series / 320D Series / 520D Series

- GV-BL120D / 130D / 220D / 320D

- GV-MFD120 / 130 / 220 / 320 / 520

- GV-CB120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 / 521

- GV-VD120D / 121D / 122D / 123D

- GV-VD220D / 221D / 222D / 223D

- GV-VD320D / 321D / 322D / 323D

Fixed:

- Incorrect sharpness value sent to GV-System

Modified:

- Default sharpness value which is changed from 2 to 4

Firmware V1.05 2011-08-31

Firmware V1.05 applies to the following GV-IP Camera models:

- GV-BX120D / 130D / 220D Series / 320D Series / 520D Series (brand-new)

- GV-BL120D / 130D / 220D / 320D

- GV-MFD120 (brand-new) / 130 / 220 (brand-new) / 320 (brand-new) / 520 (brand-new)

- GV-CB120 / 220

- GV-FD120D / 220D / 320D

- GV-FE420 / 421 / 520 (brand-new) / 521 (brand-new)

- GV-VD120D / 121D / 122D / 123D

- GV-VD220D / 221D / 222D / 223D

- GV-VD320D / 321D / 322D / 323D

New:

- Support for RTSP audio option

- Support for text overlay

- Support for brand-new Box Camera models: GV-BX520D series

- Support for brand-new Mini Fixed Dome models: GV-MFD120 / 220 / 320 / 520

- Support for brand-new Fisheye models: GV-FE520 / 521

Fixed:

- Overexposure and clarity issue on live view

- Overexposure in Vandal Poof IP Dome, Bullet Camera and Fixed IP Dome using intelligent IR, which automatically adjusts IR light intensity

- Image horizontal noise with IR LED (in GV-BX120D / BL120D / VD120D / VD121D / VD122D / VD123D / FD120D)

- Abnormal switch between day and night mode when iris is set as automatic

- Irregular aperture control when iris is set as automatic

- Failure of the auto white balance function when white balance is configured from outdoor to auto option

- Inconsistent device temperature display between GV-IP Device Utility and Web interface

- Recording error on GV-FE420 / 421 in which initial images may turn black under H.264 codec

- Live view error on GV-FE420 / 421 in which the images may turn green for 1 or 2 seconds when Geo Fisheye function is enabled

- Failure to add watermark to files recorded on micro SD/SDHC memory card of the camera

Modified:

- Incorrect frame rate for stream 2 when both streams are enabled, the connection set as fast and the stream 1 resolution set as 2 M or lower (not applicable for GV-FE420 / 421)

- Web interface information in which an acceptable internal temperature range (0°C ~ 95°C / 32°F ~ 203°F) is noted

Improved:

- Video attributes such as brightness, contrast, gamma and sharpness

Firmware V1.03 2011-04-26

Firmware V1.03 applies to the following GV-IP Camera models:

- GV-VD120D / 121D / 122D / 123D / 220D / 221D / 222D / 223D / 320D / 321D / 322D / 323D

- GV-BL120D / 220D / 320D

- GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1

- GV-FE420 / 421

New:

- Support for D/N sensitivity adjustment

- Support for wide angle lens dewarping

- Support for GV-Backup Center, GV-Video Gateway and GV-Recording Server

- Support for QoS (DSCP)

- Support for HTTPS (GV-BX / VD / BL series only)

- Support for SNMP (GV-BX / VD / BL series only)

- Support for BLC (Backlight Compensation) (GV-BX / VD / BL series only)

- Convenient and easy focus adjustment using GV-IP Device Utility (GV-BX / VD / BL series only)

- Support for database repair (GV-BX / FE series only)

- Support for automatic reboot (GV-BX / FE series only)

Fixed:

- Inaccurate device temperature displayed on GV-IP Device Utility

- Failure to add the camera manually to Milestone NVR using PSIA protocol

- System time error and recording interruption when using micro SD card to record for long hours

- White balance issue in which the live view appeared blue when white balance was used under high color temperatures (GV-BX / VD / BL series only)

- Failure to support audio in stream 2 when RTSP protocol was enabled (GV-BX / VD / BL series only)

- Reconnection issue after the camera was disconnected (GV-BX / FE series only)

- Failure to capture snapshots using CGI command (GV-BX / FE series only)

- Failure to record by schedule after the camera was rebooted (GV-BX / FE series only)

- IP address refresh problem when using the GV-IP Device Utility to modify the camera's IP address (GV-BX / FE series only)

- Failure to enable time zone setting after reboot (GV-VD / BL series only)

- Failure to send e-mail alerts to multiple recipients (GV-BX series only)

- Failure to send e-mail and FTP alerts when both functions were enabled (GV-BX series only)

- Flickering image under some environments (GV-BX series only)

- Narrow bandwidth problem that may cause login failure (GV-BX series only)

- Failure to recycle and record when the storage space was not enough and the camera was restarted (GV-BX series only)

Modified:

- The network buffer size to increase data transmission rate

- Maximum frame rate which is modified from 20 fps to 15 fps at Stream 2 when 2048 x 1536 is selected (GV-BX / VD / BL series only)

- Default signal format which is changed from "NTSC" to "Disable" (GV-BX series only)