

Evolution 05 / Evolution 05 Mini 360-degree Camera Series

This document describes the enhancements and major fixes for Evolution 05 360-degree series camera firmware. Review each section to determine if an upgrade is warranted for your installation.

NOTICE: Verify compatibility with any required VMS versions before upgrading your firmware in a live site.

NOTICE: Upgrading from below 1.9.16 to 1.9.16 or higher will reset the camera to factory defaults, except for User Accounts and IP settings.

NOTICE: Upgrading from 1.4.X to 1.9.4 or above can change system functionality.

- Firmware version 1.9.4 introduced changes which could result in incompatibility with certain VMS integrations.
- Factory default settings are automatically restored immediately after upgrading the firmware. The procedure to back-up the current configuration of the camera is on support.oncamgrandeye.com.
- Firmware prior to v1.9.x featured square motion detection regions. This version features new polygonal regions. If you are upgrading from firmware 1.4.12 or earlier to 1.9.x, you will need to recreate motion detection regions, if required. When factory default settings are applied, the whole scene is used for motion detection until explicit regions are defined.

NOTICE: Downgrading from releases above 1.9.11 to releases below 1.9.11 requires a factory reset that includes resetting all the camera's network settings.

- When downgrading the camera over a routed connection, it will become unreachable outside the local subnet if there is no DHCP server to reapply the previous settings.

For additional camera information (including the latest updates to documentation, product specifications, and software downloads), visit the Oncam web site at: www.oncamgrandeye.com

SUPPORT

For technical issues, contact Oncam Technical Support at:

US +1 978 735 4860 x112

UK +44 207 371 2324

Visit support.oncamgrandeye.com for the latest FAQs and Downloads, and how to upgrade camera firmware.

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2.2.0 / 2.2.0L Release (November 2020)

This maintenance release applies to all Evolution 05 (Build 697) and Evolution 05 Mini (Build 697L) 360-degree 5MP cameras.

This firmware has been tested to be Profile S and Profile G conformant with the ONVIF Device Test Tool v20.06 (revision 6086)

Enhancements

First time access – Password and Username Setting

To connect to the camera for the first time, a Username and Password will need to be set for the Primary Administrator. For enhanced security, default usernames and passwords are not supported.

Notifications

Improvements have been made to system notifications involving the SD card.

Fixes

MJPEG Error message

Camera no longer displays a “Bad HTTP” error message on the control panel when only streaming MJPEG.

Ref: 1512

Known Issues

Recording state change impact on Audio

If the Primary recording job is switched to IDLE, the audio for the stream is switched off. A reboot is required to enable it again.

Ref: 1911

Audio Gaps (EVOLUTION 05 Only, not Mini)

Under certain conditions, when the audio connection is used on the EVO-5 camera, intermittent audio gaps of less than a second can be observed.

Ref: 1454

Audio Requires a Reboot After Enabling

Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

Ref: 1433

Dual Streaming

Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 1143,1152

2.1.2 / 2.1.2L Release (October 2020)

This maintenance release applies to all Evolution 05 (Build 696) and Evolution 05 Mini (Build 696L) 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v20.06 (revision 6086)

Fixes

Streaming Stability Improvements

Resolves an issue with EVO-05 streaming stability on a very busy network.

- RTSP over TCP streaming retries increased before disconnecting.
- Increased TCP send buffer size to allow for heavily loaded network that are slow to acknowledge.
- WebRequest timeout value increased for heavily loaded networks that are slow to acknowledge.

Ref: 1992

Known Issues

Audio Gaps (EVOLUTION 05 Only, not Mini)

Under certain conditions, when the audio connection is used on the EVO-5 camera, intermittent audio gaps of less than a second can be observed.

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Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

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Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 1143,1152

2.1.1 / 2.1.1L Release (August 2020)

This maintenance release applies to all Evolution 05 (Build 683) and Evolution 05 Mini (Build 684L) 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v19.12 (revision 5170)

Enhancements

ONVIF Profile G

Conformance with the ONVIF Profile G specification has been implemented on the EVO-5 camera. Profile G defines the criteria for a device to record video data over an IP network or on the device itself.

SNMP

Simple Network Management Protocol (SNMP) is an application-layer protocol used to manage and monitor network devices and their functions. SNMP version 2 and version 3 have been integrated into the EVO-5 camera range.

Ref: 1931

802.1x/EAP

802.1x authentication standard is used for passing Extensible Authentication Protocol (EAP) over Local Area Networks (LAN). It provides an encrypted EAP tunnel that prevents outside users from intercepting information. The EVO-5 camera supports the MD5, TLS and PEAP authentication types.

Ref: 1820

Multicast

Multicast capability has been extended to include all streams of the EVO-5 cameras. Prior, only the primary stream was able to be multicast.

Ref: 1723

Password Special Character

Able to use special characters in passwords for user credentials to access EVO-5 cameras.

Ref: 1928

Fixes

Genetec Security Center Compatibility

Resolved an issue with discovering and adding the EVO-05 camera to Genetec Security Center.

Ref: 1951

Motion not detected

Resolved an issue with motion metadata being streamed with video data. When upgrading the EVO-05 firmware from previous versions, the Motion metadata information was being disabled.

Ref: 1927

Known Issues

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image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 1143,1152

1.9.20 / 1.9.20L Release (September 2019)

This maintenance release (build 627) applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v19.06 (revision 5170)

Fixes

Invalid Subscriber errors

Resolved an issue with subscriber creation resulting in errors being generated. Ref: 1790

Known Issues

Audio Gaps (EVOLUTION 05 Only, not Mini)

Under certain conditions, when the audio connection is used on the EVO-5 camera, intermittent audio gaps of less than a second can be observed.

Ref: 1454

Audio Requires a Reboot After Enabling

Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

Ref: 1433

Dual Streaming

Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 1143

1.9.19 / 1.9.19L Release**(April 2019)**

This maintenance release (build 573) applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.18.12 (revision 4782)

Fixes**Metadata Errors**

Resolved an issue with subscriber creation resulting in errors being generated.

Ref: 1702

Admin Password Change

Resolved the inability change Admin password via ONVIF.

Ref: 1688, 1711

Enabling Secondary Stream

Resolved an issue where the camera would reboot after enabling second stream rebooted camera.

Ref: 1231, 174

Remove Unnecessary ONVIF Events – EVO-05 Mini

Removed the ONVIF events associated with Digital Input from being visible for the EVO-05 Mini.

Ref: 1746

ONVIF Notifications

Improvements were made to address the long-term stability of ONVIF notifications.

Ref: 1698, 1720

Notifications Filters

Updated XPath handling for ONVIF Message Content filtering.

Ref: 1647, 1710

Security Updates**Updated Libraries**

Updated internal versions as published in the Common Vulnerabilities and Exposures (CVE) catalog.

Ref: 1732

Known Issues

Audio Gaps (EVOLUTION 05 Only, not Mini)

Under certain conditions, when the audio connection is used on the EVO-5 camera, intermittent audio gaps of less than a second can be observed.

Ref: 1454

Audio Requires a Reboot After Enabling

Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

Ref: 1433

Dual Streaming

Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 1143

1.9.18 / 1.9.18L Release

(July 2018)

This release (build 525) applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.17.12 (revision 3102).

Enhancements

Reboot Button Added to Camera Web Page

A reboot button has been added to the camera Web interface in the "Maintenance" page of the "Admin" menu, along with the "Reset to Factory Defaults" button. The "Maintenance" page has been renamed from "Factory Defaults".

Ref: 1485,1526.

HTTP Tunnelling

Tunnelling RTSP streams over HTTP is now supported.

Ref: 1479, 1480, 1481, 1482, 1483, 1514

Fixes

FIN HTTP response missing

Fixed a minor issue where an expected confirmation message was not sent out when a client closed its connection to certain HTTP services.

Ref: 1484, 1508

Known Issues

Audio Gaps (EVOLUTION 05 Only, not Mini)

Under certain conditions, when the audio connection is used on the EVO-5 camera, intermittent audio gaps of less than a second can be observed.

Ref: 1454

Audio Requires a Reboot After Enabling

Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

Ref: 1433

Dual Streaming

Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 1143

1.9.17 / 1.9.17L Hotfix 481 Release

(May 2018)

This release (build 481) applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.17.06 (revision 2092).

Fixes

This release (build 481) provides an update to an internal diagnostic file used in the production environment of the camera. If already using build 1.9.17-460 of this release in the field, updating of the product to this release is not required. No other product updates or fixes have been included in this release.

Known Issues

Audio Gaps (EVOLUTION 05 Only, not Mini)

Under certain conditions, when the audio connection is used on the EVO-5 camera, intermittent audio gaps of less than a second can be observed.

Ref: 1454

Audio Requires a Reboot After Enabling

Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

Ref: 1433

Dual Streaming

Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 1143

1.9.17 / 1.9.17L Release**(April 2018)**

This release (build 460) applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.17.06 (revision 2092).

Fixes**Frame gaps in recordings**

Fixed an issue where intermittent frame gaps could be seen in the video stream under certain lighting conditions.

Ref: 1451

Extreme light change in scene

Resolved a rare occurrence where the camera could reboot when an extreme light source was shone directly into the sensor or an extreme light change occurred in the whole scene.

Known Issues**Audio Gaps (EVOLUTION 05 Only, not Mini)**

Under certain conditions, when the audio connection is used on the EVO-5 camera, intermittent audio gaps of less than a second can be observed.

Ref: 1454

Audio Requires a Reboot After Enabling

Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

Ref: 1433

Dual Streaming

Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

Ref: 114

1.9.16 / 1.9.16L Release **(December 2017)**

This release applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.17.06 (revision 2092).

Enhancements

Time Zone Database Update

Expanded available time zones list to cover full IANA Time Zone Database. Fixes several other minor issues relating to time zones at the same time.

Ref: 1248, 1337, 1338, 982, 1408

Fixes

Unable to delete Privacy Region

Fixed a bug where in some browsers privacy regions would occasionally refuse to delete.

Ref: 1028

Integration-specific fixes

Several minor improvements to some VMS-specific features.

Ref: 1296, 1325, 1350, 1368, 1373, 1412, 1203

Minor text updates in Motion Region page

Removed references to “custom” in the names of some motion settings.

Ref: 1353

Known Issues

Dual Streaming

Under certain conditions when using dual streams (either 2MP and 1MP, or 4MP and 1MP), the 1MP stream image can seem to be moving up and down a little. Under these same conditions in wall mount mode, the invert option inverts only half of the image.

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Audio will not stream after being enabled until the camera is rebooted, but the Web GUI message to alert the user doesn't appear. Audio will be disabled after upgrading to v1.9.16 because this new version applies factory defaults, so a reboot must be applied manually if re-enabling audio.

Ref: 1433

1.9.15 / 1.9.15L Release **(October 2017)**

This release applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.17.06 (revision 2092).

Enhancements

Improved Compression Performance in Fixed Quality mode

A new compression rate control algorithm has been introduced in Fixed Quality mode that reduces bandwidth in lower light conditions, without impacting the perceived image quality. The camera's default rate control mode remains CBR.

Ref: 1279, 1278, 1281, 1290, 1304

Fixes

Camera Stability

Fixed an issue in Fixed Quality mode where sudden large spikes in bandwidth could sometimes cause camera instability.

Ref: 1170, 1236

Fixed an issue where long term continuous attempts at camera discovery could cause the camera to reboot.

Ref: 1277

External Alarm Reset

Fixed a bug preventing the external alarm reset input from resetting the alarm state correctly.

Ref: 1238

1.9.14 / 1.9.14L Release**(May 2017)**

This release applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.17.01 (revision 1104).

Enhancements**Improved Motion Detection Accuracy in Low Light**

Motion detection algorithm has been enhanced in low-light conditions, for improved accuracy, efficiency and noise rejection, resulting in further-reduced false triggers.

Ref: 1236

Fixes**ONVIF Conformance**

Fixed ONVIF conformance issue where device offers relay output, but is not supported via ONVIF

Ref: 1222

Fixed ONVIF conformance issue with User Authentication Schema

Ref: 1242

Motion Metadata

Fixed an issue where motion metadata always reported motion from the first motion region, regardless of which region was triggered.

Ref: 1220

1.9.13 / 1.9.13L Release **(March 2017)**

This release applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

The firmware version 1.9.13L on the EVO-05 Mini camera has been tested Profile S conformant with the ONVIF Device Test Tool v.16.07 SR (revision 419).

Fixes

Fixed several low-risk security flaws

Fixed low-risk "Etherleak" security vulnerability

Ref: 1173

Fixed low-risk SSH security vulnerabilities

Ref: 1148, 1149

1.9.12 / 1.9.12L Release**(November 2016)**

This release applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras.

The firmware has been tested Profile S conformant with the ONVIF Device Test Tool v.16.01 (revision 419).

Enhancements**Improved CVBR (Capped Variable Bit-Rate)**

Added VBR and CBR bit rate controls. Resolved an issue where stream bit rate in Capped Variable Bit Rate (CVBR) remained at the maximum bit rate.

Ref: 1122

SDK for UPnP Devices

Improved security for UPnP by upgrading the Portable SDK for UPnP Devices from version 1.6.6 to version 1.6.18. This addresses several security vulnerabilities that were found in the previous SDK version.

Ref: 1128

SSH Security

Improved security for SSH by upgrading Dropbear to version 2016.74. This enhancement removes multiple vulnerabilities discovered in the previous Dropbear version.

Ref: 1129

Camera stability

Camera stability is improved by correcting a timing error that could cause the camera to stall.

Ref: 1111

ONVIF Motion Detection Events

Implementation modified for ONVIF Motion Detection Events improving Video Management System compatibility.

Ref: 1124

Fixes

N/A

1.9.11 / 1.9.11L Release**(September 2016)**

This release applies to all Evolution 05 and Evolution 05 Mini 360-degree 5MP cameras. The firmware has been tested Profile S conformant with the ONVIF Device Test Tool v.16.01 (rev419).

Enhancements**New VLC plugin**

The previous QuickTime plugin has been replaced with a VLC plugin. After installing the appropriate VLC Plugin, different browsers support H.264 video in the camera web page. Browsers supporting the VLC plugin include the following.

- Firefox
- Internet Explorer
- Edge
- Safari

Motion Detection

Enhancing efficiency, the new Motion Detection engine brings refined user settings to fine-tune motion detection. The new engine features eight user-definable regions and one full-scene region (active by default).

Motion Detection – User settings**Motion Sensitivity:**

Controls the sensitivity of the camera to object movement. Where low-contrast objects are difficult to capture, increase the sensitivity to detect these objects. Setting the sensitivity lower requires more motion to activate an alarm.

Notice: Higher sensitivity values in noisy environments may cause false alarms.

Motion Threshold:

The amount of moving pixels required to raise a motion alarm are determined by the threshold setting. Motion alarms are caused by the cumulative moving pixels regardless of their distribution. Setting the threshold higher increases the motion's time to activate an alarm.

Notice: Low motion thresholds in noisy environments may cause increased false alarms.

Motion Persistence:

The period when motion is detected in a frame prior to raising an alarm is the persistence. Raising a motion alarm immediately after the motion might lead to false alarms in noisy environments. Use the motion persistence setting to ensure the system raises an alarm only when persistent motion exists.

Motion Latency:

Motion latency defines how many frames an alarm remains true after motion stops. A low latency allows a rapid succession of motion events to appear as multiple alarms. A higher setting will group rapid triggers into a single alarm event.

Motion Detection – API calls

The four new motion detection user settings may also be configured using their corresponding CGI commands as follows:

```
http://<ip_address>/analytics/setanalyticsconfig.cgi?motionsensitivity=99
```

```
http://<ip_address>/analytics/setanalyticsconfig.cgi?motionthreshold=99
```

```
http://<ip_address>/analytics/setanalyticsconfig.cgi?motionpersistence=2000
```

```
http://<ip_address>/analytics/setanalyticsconfig.cgi?motionlatency=1000
```

Each of the commands have a matching [getanalyticsconfig.cgi](#) parameter that returns the value displayed to the user on the web page.

Motion detection – Low light

The new motion detection engine is more robust with greatly improved reliability in low light conditions.

Motion detection – Factory reset

The Factory Reset default settings have been updated. The following settings are active after a Factory Reset:

- Motion detection is enabled over the full fisheye scene
- Motion Detection is set as the Active Trigger
- Alarm is enabled

1.9.9 / 1.9.9L Release

(May 2016)

This release applies to all Evolution 05 and 05 Mini; 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with the ONVIF Device Test Tool v.16.01 (rev419).

Enhancements

- Factory Defaults Reset now retains essential IP settings unless forced
- When a user wants to reset a camera to its Factory Defaults, the following essentials IP settings will be retained by default:
 - DHCP (On or Off)
 - IP address
 - Network mask
 - Default gateway
 - Http port

However, it is possible to force the IP settings to be cleared at the same time as the Reset to Factory Defaults. To do this, the user must uncheck the box in the Factory Defaults tab of the web GUI Admin Page:



Fixes

- Metadata streaming not present
Fixed a bug where Motion Detection metadata was not streamed over RTSP
- Evo-Mini Admin page has acquired Audio Tab
Removed the Audio Tab from the web GUI Admin page, which was incorrectly present in the Evo-Mini firmware

1.9.8 / 1.9.8L Release**(March 2016)**

This release applies to all Evolution 05 and 05 Mini; 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with both v.14.12.SR1 and v.15.06 of the ONVIF Device Test Tool.

Enhancements**Monochrome / Colour Switch**

A new setting has been implemented in the web interface of the camera. This setting allows the user to control how the camera image will switch from Colour to Monochrome and Monochrome to Colour in response to different illumination levels.

The available settings for the Monochrome/Colour Switch controls are:

- Automatic
- 1 Lux
- 5 Lux
- 10 Lux
- 20 Lux
- 40 Lux
- 100 Lux
- Always Monochrome

NOTE: for a detailed explanation about this new feature, please read the User Manual, section 6.2.6

Fixes**Milestone Corporate**

Fixed a bug where Milestone Corporate 2016 was unable to see an Evolution 05 camera with either the firmware V1.9.6 or V1.9.4 over an Onvif connection.

1.9.6 / 1.9.6L Release**(Nov 2015)**

This release applies to all Evolution 05 and 05 Mini; 360-degree 5MP cameras.

This firmware has been tested to be Profile S conformant with both v.14.12.SR1 and v.15.06 of the ONVIF Device Test Tool.

Enhancements

- **ONVIF – support for 2 unique H.264 streams**

Using ONVIF, a user can now configure and stream a second h.264 stream over ONVIF; while previously, it was only possible to have a h.264+MJPEG (as a secondary stream)

This is a significant improvement for VMS Partners that benefit from a second h.264 stream over ONVIF.

Major Fixes

- **ONVIF – “SetScopes” command**

Fixed bug with ONVIF SetScopes operation

- **ONVIF – “GetDigitalInput” command**

Fixed bug with ONVIF GetDigitalInputs operation and DigitalInputTrigger notification using different tokens

This firmware also includes fixes related to Alarm Settings camera web configuration page.

1.9.4 / 1.9.4L Release**(August 2015)**

This release applies to Evolution 05 360-degree cameras.

This firmware has been tested to be Profile S conformant with both v.14.12.SR1 and v.15.06 of the ONVIF Device Test Tool.

Enhancements

- **30fps Video Stream**

The camera now supports up to 30fps at 1MP and 1/4MP resolution stream.

- **Low-light enhancements**

There has been a significant adjustment in the camera sensor settings to help address some low light performance issues that have been seen in the field. The new firmware shows a visibility improvement and reduced bandwidth (due to reduction in low-light noise) in scenes below 30lux.

- **ONVIF Motion Events Support**

ONVIF Motion Events are important for recording in partner VMS platforms that use the ONVIF driver to connect to the EVO-05 cameras.

- **SD Card Recording Support**

The camera can be configured to record a clip to an SD card based on triggered motion events.

- **Polygonal Motion and Privacy Region**

Users can now create Motion Detection Regions using a free hand drawn polygon instead of selecting rectangles from a fixed grid of motion detection areas.

- **Multicasting Support**

For customers that desire a multicast stream, this functionality is available through CGI commands and from the camera's configuration web page.

- **Manufacturing Name Changed to "Oncam Grandeye"**

This has been updated in the camera firmware to help correctly identify Oncam Evolution 05 cameras.

- **Operator and User Logins have been created and improved**

Giving customers better control of users and authentication access to the camera webpage and settings.

1.4.12 Release

(May 2015)

This release applies to Evolution 05 360-degree cameras.

Enhancements

- Hardware

We have a hardware update for the Evolution 05 platform, which is included on all Evolution 05 models; Indoor, Outdoor, Concealed and Mini.

This update has added in RTC (Real-Time Clock) circuitry, re-designed EVO-05 power and main boards on to a single board (PCB).

The purpose of updating the hardware is to improve overall reliability and ESD (Electro Static Discharge) performance to pass the latest testing requirements.

- Software

We have updated the factory firmware from 1.4.10 to a new 1.4.12 version (1.4.12L for Mini).

The 1.4.12 firmware is completely backward compatible with any old hardware in the field today and is an optional update, not a required update. This firmware will have two primary fixes:

- White balance adjustment: Fixing an issue where the image would have a yellow hue in certain lighting conditions. This was rarely seen, but a significant customer was concerned about this and we were able to update this successfully.
- Fix for RTC updated hardware: Real Time Clock updated to match new hardware

NOTE: Neither the hardware nor firmware changes will affect any Partner Integrations today

1.4.10 Release**(July 2014)**

This release applies to Evolution 05 360-degree cameras.

Major Fixes

- Corrected an error in usage of the bit rate limit in the ONVIF video encoder configuration. The bit rate was set too low.
- Fixed an issue with ONVIF that caused a crash with a particular NVR implementation due to the way the request was constructed.

1.4.8 Release**(April 2014)**

Enhancements

- Admin password is used immediately for H.264 streaming so a reboot is no longer required.
- Added option to disable uPNP.

Major Fixes

- Fixed an issue with ONVIF probe.
- Fixed an issue that caused camera to fail on reboot if an apostrophe was in the camera name.
- Fixed an issue that caused changing from static to dynamic IP addressing to corrupt subnet configuration.
- Fixed an issue that caused both external and motion alarms to occur at the same time.

1.4.7 Release**(September 2013)**

Enhancements

- ONVIF conformant with the latest test tool (13.06).
- The ONVIF profile default is now set to H.264 instead of MJPEG. If a factory defaulted camera is connected to an NVR using ONVIF, the default stream will be 4M H.264.
- The factory default for the audio feature is now set to disabled.
- The watchdog module now additionally tests the web server. If the web server stops functioning, the camera will be rebooted by the watchdog.
- The web server code has been updated to make it more robust during normal operation and firmware upgrades.

Major Fixes

- The analog output has been fixed. This output no longer “zooms in” and fails to show the whole fisheye when the second camera is enabled.

Contact Information

US / Americas

900 Middlesex Turnpike
Building 5, Suite 2E
Billerica, MA 01821
USA

+1 978 735 4860 x106

Europe

Building 4, Chiswick Park
566 Chiswick High Road
London W4 5YE
United Kingdom

+44 20 7371 6640

www.oncamgrandeye.com