AXIS OS Release Notes

Release notes

This is where you'll find the latest release notes for products on AXIS OS.

Release notes for the active track are available from 10.0.0 and onwards. Release notes for the LTS tracks are available from 6.50.5.3 (LTS 2016), 8.40.4.1 (LTS 2018) and 9.80.3.3 (LTS 2020) and onwards.

For more in-depth information about AXIS OS features and functionality, go to *AXIS OS Portal*.

Upgrade recommendations

If you need to step up your firmware several steps, it's recommended to do an intermediate upgrade to an LTS track before proceeding. For example, if the current version is 7.40.1 and you want to upgrade to 10.1.0, you should do the upgrade in these steps: 7.40 > 8.40 LTS > 9.80 LTS > 10.1.0.

Upgrade the firmware according to the instructions in *How to upgrade in AXIS OS Portal*.
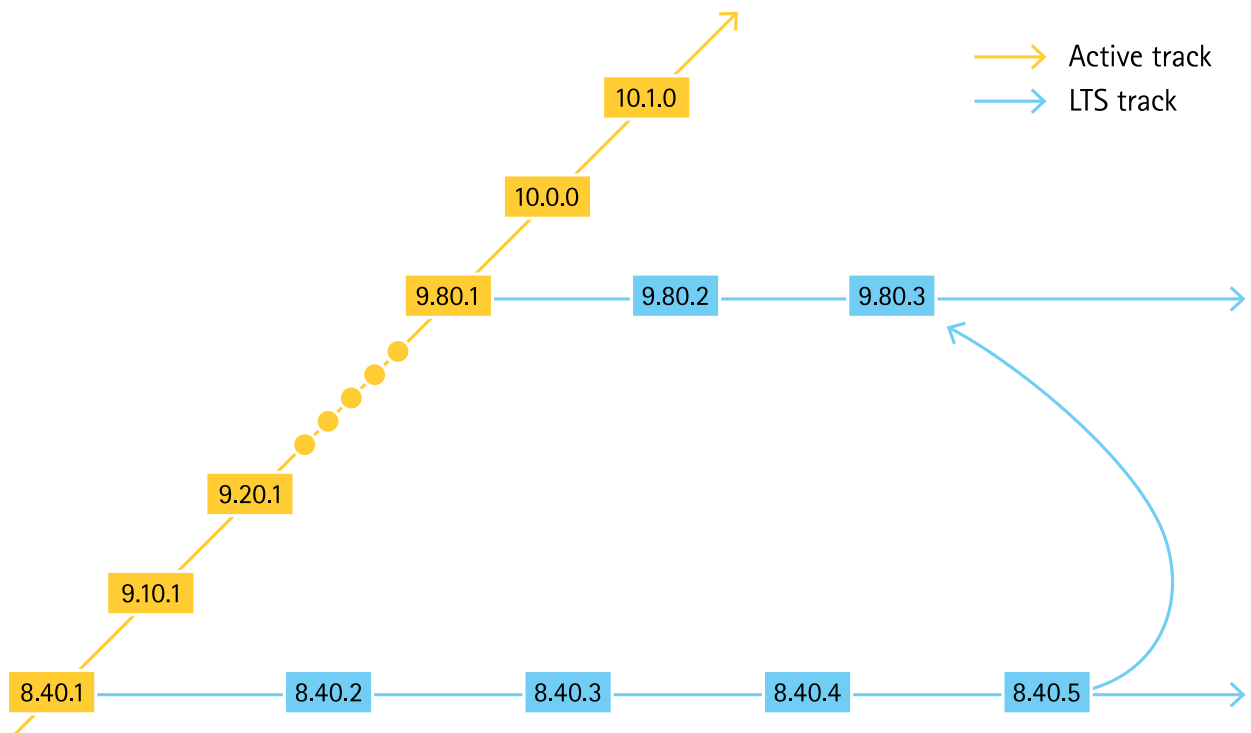
AXIS OS 10

10.8

AXIS OS 10.8.1

Release date: week 47 2021

Features

- Updated Apache to version 2.4.51 to increase overall cybersecurity level.

Corrections

- Corrected an issue where the heater would not run at maximum power if only one of the two channels were heated up.
  Applies to: AXIS P3715-PLVE

AXIS OS 10.8.0

Release date: week 47- 49 2021

Features

- Added support in action service - send notification action (HTTP/HTTPS) for optionally supplying; method, HTTP headers and (for applicable method types) a body.

  - Added support in HW2 action engine UI to specify method, HTTP headers and body.

  - Added support in preview UI to specify method, HTTP headers and body.

- Added support for POST/PUT/PATCH/DELETE HTTP methods in event rule HTTP notifications actions. Together with the new methods, it's also possible to provide custom request body and HTTP headers. UI support is only available in the new web interface. See example in this *video clip*.

- Device-level topic prefix support added. This feature can be used to specify a topic prefix that can be reused when publishing and subscribing to MQTT messages. This prefix can also be utilized as a device id within the global topic structure.

- Added support to create filepath when exporting to external disk.

- Added support for ONVIF profile M.
  Applies to: AXIS FA51/-B, AXIS M1134, AXIS M1135/-E, AXIS M1137/-E, AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V, AXIS M3115-LVE, AXIS M3116-LVE, AXIS M3205-LVE, AXIS M3206-LVE, AXIS M4308-PLE, AXIS P1367/-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P1455-LE-3, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS P3245-LVE-3, AXIS P3807-PVE, AXIS P3818-PVE, AXIS P3925-R/LRE, AXIS P3935-LR, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1951-E, AXIS Q1952-E, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE, AXIS Q3518-LVE, AXIS Q3527-LVE, AXIS Q6215-LE, AXIS Q9216-SLV, AXIS V5925, AXIS V5938, D101-A XF P3807, ExCam XF P1367, ExCam XF Q1645, ExCam XF Q1785, F101-A XF P1367, F101-A XF Q1785 and XP40-Q1785

- Added *straighten image* as a new image correction functionality.
  Applies to: AXIS P3255-LVE

- Added the possibility to individually control IR-light intensity.
  Applies to: AXIS P1455-LE and AXIS P1455-LE-3

- Added a 10 band audio equalizer. Currently only available via the audio mixer cgi API. Functionality is currently limited to the first input.
  Applies to: AXIS M3205-LVE, AXIS M3206-LVE, AXIS Q3515-LV/-LVE, AXIS Q9216-SLV, AXIS P3245-LV/-LVE, AXIS P3247-LV/-LVE and AXIS P3248-LV/-LVE

Corrections

- Corrected a display issue when a user logs in as a viewer on the **Statistics** tab.

- Improved recording stability.
  Applies to: AXIS S3008

- Improved autofocus speed.
  Applies to: AXIS M7104, AXIS M7116, AXIS P5654-E, AXIS P5655-E, AXIS P7304, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1798-LE, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6135-LE, AXIS Q6215-LE, AXIS Q6315-LE, AXIS Q8752-E, AXIS V5925, AXIS V5938, ExCam XF Q1785, F101-A XF Q1785 and XP40-Q1785

- Corrected an issue where the "not enough power" text overlay was not shown.
  Applies to: AXIS Q3819-PVE

- Updated the header for H.265 streams to not include delay information in order to avoid that some video clients may mistake it for B-frames.
  Applies to: AXIS D2110-VE, AXIS I8016-LVE, AXIS M1134, AXIS M1135/-E, AXIS M1137/-E, AXIS M3057-PLVE Mk II, AXIS M3067-P, AXIS M3068-P, AXIS M3077-PLVE, AXIS M3115-LVE, AXIS M3116-LVE, AXIS M4308-PLE, AXIS M7104, AXIS M7116, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1455-LE, AXIS P1455-LE-3, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3245-LVE-3, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS P3727-PLE, AXIS P3818-PVE, AXIS P3925-R/-LRE, AXIS P3935-LR, AXIS P5654-E, AXIS P5655-E, AXIS P7304, AXIS Q1615/-LE Mk III, AXIS Q1798-LE, AXIS Q1951-E, AXIS Q1952-E, AXIS Q3819-PVE, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6135-LE, AXIS Q6315-LE, AXIS Q8752-E, AXIS V5925 and AXIS V5938

- Corrected an issue where the camera sometimes did not recover from night mode. Please power off/on the camera after upgrade for this correction to take effect.
  Applies to: AXIS M3205-LVE and AXIS M3206-LVE

Limitations

- On single channel products, text and image overlays are no longer shown for streams using **overview=1**. This results in some ACAPs, like AXIS VIdeo Motion Detection and AXIS Live Privacy Shield, will no longer have text and image overlays on their configuration pages. It also means that text and image overlays are not shown on the **Image**, **Privacy mask**, and **View area** tabs in the web interface if a view area is created.
  Applies to: AXIS M1134, AXIS M1135/-E, AXIS M1137/-E, AXIS M3057-PLVE, AXIS M3058-PLVE, AXIS M3057-PLVE Mk II, AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V, AXIS M3067-P, AXIS M3068-P, AXIS M3115-LVE, AXIS M3116-LVE, AXIS M3205-LVE, AXIS M3206-LVE, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3245-LVE-3, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS Q1615/-LVE Mk III, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1645/-LE, AXIS Q1659, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1798-LE, AXIS Q3819-PVE, AXIS Q9216-SLV and ExCam XF Q1645,

ACAP updates

- *AXIS Object Analytics* 1.0.33 is pre-installed.
  Applies to: AXIS P3255-LVE, AXIS Q1615/-LE Mk III, AXIS M4308-PLE, AXIS M1137/-E, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1455-LE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3727-PLE, AXIS P5654-E, AXIS P5655-E, AXIS Q1798-LE, AXIS Q3819-PVE, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6135-LE and AXIS Q6315-LE

  - Stability improvements

  - Minor UI changes

10.7

AXIS OS 10.7.3

Release date: October 2021

Corrections

- Improved streaming stability for devices used in AXIS Companion systems.
  Applies to: AXIS M1137/-E, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1455-LE, AXIS P1455-LE-3,

AXIS P3245-V/-LV/-VE/-LVE, AXIS P3245-LVE-3, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P5654-E, AXIS P5655-E, AXIS Q1798-LE, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6135-LE and AXIS Q6315-LE

ACAP updates

- Axis Object Analytics 1.0.30 is preinstalled.

    - Corrected an issue with the stream in the configuration web page.

AXIS OS 10.7.2

Release date: October 2021

ACAP updates – AXIS Q3819-PVE only

- Axis Object Analytics 1.0.30 is preinstalled.

    - Corrected an issue with the stream in the configuration web page.

AXIS OS 10.7.1

Release date: October 2021

Corrections

- Corrected a network issue that on rare occasions could cause the product to lose its internet connection.

AXIS OS 10.7.0

Release date: week 39 - 41 2021

Features

- ACAPs containing a manifest.json file are now fully supported. The manifest.json file contains settings and parameters for the application. The older package.conf file is still supported.

- Net-SNMP is now the new SNMP backend for AXIS OS devices and will replace the legacy SNMP backend that was used previously. Net-SNMP provides significantly higher security mechanisms and authentication for SNMPv3 than previously could be provided. Highlights and other changes:

    - The default "initial"-user is now pre-configured with SHA-1 and AES-128 authentication/privacy compared to MD5 and DES previously. A factory default is required in order to use the new security settings.

    - Added support for SHA-1, SHA-256, SHA-384, SHA-512 for authentication and AES-128, AES-256 for privacy. For additional configuration of these methods, please contact the Axis Support Helpdesk.

    - A firmware upgrade to AXIS OS 10.7 with SNMP enabled will migrate the configured SNMP settings, with the exception of the SNMPv3 user access configuration.

    - Added support for switching between either UDP or TCP as transport protocol during runtime via the VAPIX parameter **SNMP.TransportProtocol** in **Plain Config > SNMP**.

    - Multiple SNMPv3 users as well as corresponding different access-role configurations are currently not supported.

- Added support for MQTT subscription. With this support, it will be possible to use incoming MQTT messages as action triggers in the rule engine of the new preview web interface.

- Added optional API status property in VAPIX API Discovery JSON response body.

- Updated Apache to version 2.4.48 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1l to increase overall minimum cybersecurity level.

- Extended the 802.1x EAP-Identity field character limit from 32 to 128 characters.

- Added support for .ogg and .opus encoded mediaclips.
  Applies to: AXIS A8207-VE, AXIS A8207-VE Mk II, AXIS D2110-VE, AXIS FA54, AXIS I8016-LVE, AXIS M1134, AXIS M1135/-E, AXIS M1137/-E, AXIS M3057-PLVE, AXIS M3057-PLVE Mk II, AXIS M3058-PLVE, AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V, AXIS M3067-P, AXIS M3068-P, AXIS M3077-PLVE, AXIS M3115-LVE, AXIS M3116-LVE, AXIS M3205-LVE, AXIS M3206-LVE, AXIS P1367/-E, AXIS P1368-E, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1455-LE, AXIS P1455-LE-3, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3245-LVE-3, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS P3715-PLVE, AXIS P3719-PLE, AXIS P3807-PVE, AXIS P3925-R/-LRE, AXIS P5655-E, AXIS P8815-2, AXIS Q1615/-LE Mk III, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1700-LE, AXIS Q1798-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, AXIS Q3527-LVE, AXIS Q6010-E, AXIS Q6074, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6100-E, AXIS Q6135-LE, AXIS Q6315-LE, AXIS Q8752-E, AXIS Q9216-SLV, AXIS V5925, AXIS V5938 and ExCam XF Q1645

- Added *straighten image* as a new image correction functionality.
  Applies to: AXIS P3245-V/-VE/-LV/-LVE, AXIS P3247-LV/-LVE, and AXIS P3248-LV/-LVE

- Added web pages for visualizing occupancy value and stop & go signage based on occupancy levels.
  Applies to: AXIS P8815-2

- Improved privacy protection for customers choosing to upload pipeline debug data to external storage.
  Applies to: AXIS P8815-2

- Added support for 1080p 60 fps.
  Applies to: AXIS M1137/-E

- Added the possibility to start/stop object tracking with the autopilot in the camera's event system.
  Applies to: AXIS Q6010-E and AXIS Q6100-E

- Added the possibility to allow/disallow PTZ movement with directional audio detection in the camera's event system.
  Applies to: AXIS Q6100-E

- Added support for allocation of max-power via Link Layer Discovery Protocol (LLDP) in addition to PoE-class based power allocation. This allows the switch to allocate less power to the camera and potentially a greater number of PoE devices can be connected to the switch. LLDP can be enabled in **Settings > System > PlainConfig > Network >LLDP POE > LLDP Send Max PoE**.
  Applies to: AXIS M3077-PLVE

- Added support for a new NTCIP solution. NTCIP was previously supported through an ACAP, but is now enabled using the parameter root.SNMP.NTCIP.Enabled in **Plain Config > SNMP**. Please remove the NTCIP ACAP after upgrading to AXIS OS 10.7 or higher.
  Applies to: AXIS P5654-E, AXIS P5655-E, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1798-LE, AXIS Q6010-E, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6100-E, AXIS Q6135-LE, AXIS Q6215-LE, AXIS Q6315-LE, AXIS Q8752-E, AXIS V5925, AXIS V5938, ExCam XF Q1785, F101-A XF Q1785 and XP40-Q1785

Corrections

- Corrected *CVE-2021-31986*.

- Corrected *CVE-2021-31988*.

- Corrected an issue that prevented legacy motion detection from working.

- Corrected an issue with MQTT subscriptions when reconnecting.

- Corrected MQTT default message so it no longer starts with an empty string.

- Corrected an issue that caused the anonymous viewer functionality to be removed after upgrade to 10.6.0.

- Audio now uses the new audiodevicecontrol.cgi instead of the old API. This means that the gain values may be different in the web interface, but the actual audio level should be the same as before.

- Corrected an issue that prevented the Sound Intelligence Sound Detector ACAP to get an audio stream.

- Improved RTP timestamp accuracy for metadata streams.

- Corrected an issue that could cause an RTSP stream to stop after 60+ seconds if streamed to an openRTSP client.

- Corrected the product name in the web interface
  Applies to: AXIS M3058-PLVE

- Corrected an issue that caused too many SNMP PTZ error codes to be spammed in the logs.
  Applies to: AXIS Q6215-LE and AXIS Q6315-LE

- Masks created in the digital zoom range before upgrade might not cover the same exact area after upgrade.
  Applies to: AXIS M7104, AXIS P5654-E, AXIS P5655-E, AXIS P7304, AXIS P7316, AXIS Q1798-LE, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6135-LE, AXIS Q6215-LE, AXIS Q6315-LE, AXIS Q8752-E, AXIS V5925 and AXIS V5938

- Corrected an issue that caused the radar to point in the wrong direction, relative to the user input, if the stream was rotated before calibration.
  Applies to: AXIS D2110-VE

- Corrected an issue that could prevent installation configuration in iOS.
  Applies to: AXIS P3719-PLE, AXIS Q6010-E and AXIS Q6100-E

- Corrected an issue that prevented the possibility to change manual IR Illumination angle in the web interface.
  Applies to: AXIS Q1785-LE, AXIS Q1786-LE and AXIS Q1798-LE

- Improved stability when using rotated streams.
  Applies to: AXIS FA54

- Improved start-up process.
  Applies to: AXIS P3719-PLE

- Corrected an issue that caused input gain to revert to default value after upgrade.
  Applies to: AXIS M1134, AXIS M1135/-E, AXIS M1137/-E, AXIS M3057-PLVE Mk II, AXIS M3057-PLVE, AXIS M3058-PLVE, AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V, AXIS M3067-P, AXIS M3068-P, AXIS M3077-PLVE, AXIS M3115-LVE, AXIS M3116-LVE, AXIS M3205-LVE, AXIS M3206-LVE, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3245-LVE-3, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS P3715-PLVE, AXIS P3719-PLE, AXIS P3807-PVE, AXIS P3925-LRE, AXIS P3925-R, AXIS P8815-2, AXIS Q6135-LE abd AXIS Q8752-E

ACAP updates

- *AXIS Video Motion Detection* has been updated to version 4.5.1.

  - Fixed a streaming issue on the configuration web page for some products.

- *AXIS Motion Guard* 2.3.0 is preinstalled.

  - Fixed a streaming issue on the configuration web page for some products.

- *AXIS Fence Guard* 2.3.0 is preinstalled.

  - Fixed a streaming issue on the configuration web page for some products.

- *AXIS Loitering Guard* 2.3.0 is preinstalled.

  - Fixed a streaming issue on the configuration web page for some products.

- *Axis Object Analytics* 1.0.28 is preinstalled.

  - Relaxed requirements on cgi calls with empty params field to match documented VAPIX API.

  - Fix for buildup of consumed memory over time when specifically using *AnyMotion* in a crowded scene.

AXIS OS Release Notes

AXIS OS 10

10.6

AXIS OS 10.6.10

Release date: July 2021

Corrections

- Improved stability of blocked view detection.
  <u>Applies to</u>: AXIS P3925-R and AXIS P3935-LR

AXIS OS 10.6.9

Release date: July 2021

Features

- Added the parameter "Locked focus presets" in plain config, which saves new autofocus presets with fixed focus.
  <u>Applies to</u>: AXIS Q6074/-E and AXIS Q6075/-E/-S/-SE

- Added the parameter "Set preset trigger focus" in plain config, which opens the iris and does a refocus when a new preset is set.
  <u>Applies to</u>: AXIS Q6074/-E and AXIS Q6075/-E/-S/-SE

AXIS OS 10.6.8

Release date: July 2021

Corrections

- Improved double talk performance in SIP/VMS calls.
  <u>Applies to</u>: AXIS A8207-VE, AXIS A8207-VE Mk II and AXIS I8016-LVE

AXIS OS 10.6.7

Release date: July 2021

Corrections

- Corrected an issue with MQTT subscriptions when reconnecting.
  <u>Applies to</u>: Products in *Group A on page 30* and *Group B on page 30.*

AXIS OS 10.6.6

Release date: June 2021

Corrections

- Corrected an issue with MQTT subscriptions when reconnecting.
  <u>Applies to</u>: AXIS A8207-VE, AXIS A8207-VE Mk II and AXIS I8016-LVE
- Corrected an issue with O3C-based solutions when accessing the intercom interface remotely.
  <u>Applies to</u>: AXIS A8207-VE, AXIS A8207-VE Mk II and AXIS I8016-LVE

AXIS OS 10.6.4

Release date: June 2021

Corrections

- Corrected an issue that caused ONVIF conformance to fail.
  <u>Applies to</u>: AXIS P3719-PLE

- Corrected an issue that could cause streaming to fail to O3C devices.
  <u>Applies to</u>: AXIS P3719-PLE, AXIS Q6010-E and AXIS Q6100-E

AXIS OS 10.6.1

Release date: June 2021

Corrections

- Enabled Axis Edge Vault.
  <u>Applies to</u>: AXIS Q3819-PVE

AXIS OS 10.6.0

Release date: week 24 - 26 2021

Features

- Added the possibility to show day/night information in overlay text by using **#dn**. This will show both the current value and the threshold value for the day/night change.

- HTTPS Ciphers are checked and unsupported ciphers removed on standard firmware upgrade

- Added a parameter to disable Apache and OpenSSL version in HTTP(S) responses via **Plain Config > System**.

- Upgraded OpenSSL to 1.1.1k to increase overall minimum cyber security level.

- Added barrel distortion correction.
  <u>Applies to</u>: AXIS M1134, AXIS M1135/-E and AXIS M1137/-E

- Added object classifications in metadata stream when *AXIS Object Analytics* ACAP is running. If the ACAP is restarted for any reason, the metadata stream also needs to be restarted.
  <u>Applies to</u>: AXIS M1137/-E, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1455-LE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS P5654-E, AXIS P5655-E, AXIS Q1615/-LE Mk III, AXIS Q1798-LE, AXIS Q3819-PVE,AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6135-LE and AXIS Q6315-LE

- Support for stream specific legacy overlays has been removed. With this change, the URL option for both legacy image and text overlay will no longer be supported.
  <u>Applies to</u>: products in *Group A on page 30* and *Group B on page 30.*

- Added support for ONVIF profile T.
  <u>Applies to</u>: AXIS P3807-PVE and AXIS Q1659

- Updated AXIS License Plate Verifier to 2.1.0.
  <u>Applies to</u>: AXIS P1455-LE-3

- Added the option to select which overlay should be used in a stream profile.
  <u>Applies to</u>: products with support for text overlay

- Added "Audio clip playing" as a new condition in the event system.
  <u>Applies to</u>: all products **except** AXIS A8207-VE, AXIS A8207-VE Mk II, AXIS I8016-LVE and AXIS S3008

- Changed the default values for input and output gain to better reflect what is used in normal installations. Values will not change after upgrade, only after default.
  <u>Applies to</u>: AXIS A8207-VE and AXIS A8207-VE Mk II

- Changed the default values for input gain to better reflect what is used in normal installations. Values will not change after upgrade, only after default.
  <u>Applies to</u>: AXIS I8016-LVE

- New VAPIX intercom APIs can be found at *https://www.axis.com/vapix-library*
  <u>Applies to</u>: AXIS A8207-VE and AXIS A8207-VE Mk II

- Added support for ONVIF profile M
  <u>Applies to</u>: AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1455-LE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS P5654-E, AXIS P5655-E, AXIS Q1615/-LE Mk III, AXIS Q1798-LE, AXIS Q3819-PVE, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6078-E, AXIS Q6135-LE and AXIS Q6315-LE

Corrections

- Improved motion detection to handle scenes with extreme lighting changes and improved the general behavior for applications that make use of this engine and data.

- Corrected an issue that did not account for MTU packet fragmentation for IEEE 802.1x authentication. Previously the Axis device was not able to authenticate properly against an 802.1x network when the MTU was configured to 1410 or lower.

- Corrected an issue that on some occasions could prevent the export of a part of a recording.

- Corrected an issue that in combination with some VMSes and low resolution could cause brief disconnections in the video stream.

- Corrected an issue that caused AXIS Fence Guard to fail to install and run when the camera's date and time changed to year 19xx after a reset or factory default, and no date and time was configured by the user.
  <u>Applies to</u>: products with support for *AXIS Fence Guard*

- Improved handling of large objects by adding height filter parameter.
  <u>Applies to</u>: AXIS P8815-2

- Corrected an issue that removed events using wiper action after upgrade.
  <u>Applies to</u>: AXIS Q8752-E

- Improved behavior when using guard tour with the control queue.
  <u>Applies to</u>: products with support for guard tour

- Corrected an issue that made ceiling mounted cameras go to the wrong position when using absolute movements via VISCA commands.
  <u>Applies to</u>: AXIS V5925 and AXIS V5938

- Increased the maximum speaker output volume which helps to improve conversations in loud environments.
  <u>Applies to</u>: AXIS A8207-VE and AXIS A8207-VE Mk II

- Improved autodetection of NTSC cameras.
  <u>Applies to</u>: AXIS M7104 and AXIS P7304

Known bugs/limitations

- AXIS License Plate Verifier must have version 2.0 or higher to work with AXIS OS version 10.6.0.
  <u>Applies to</u>: AXIS P1445-LE

- Sometimes the web page gets stuck in a loop trying to load the Plain Config page. Refreshing the page will solve this.
  <u>Applies to</u>: AXIS A8207-VE, AXIS A8207-VE Mk II and AXIS I8016-LVE

- Automatic detection of video source might not always detect the correct video standard. If the camera is not detected correctly, use manual mode instead.
  <u>Applies to</u>: AXIS M7104 and AXIS P7304

ACAP updates

- *AXIS Motion Guard* 2.2.9 is preinstalled.

- *AXIS Fence Guard* 2.2.9 is preinstalled.

- *AXIS Loitering Guard* 2.2.9 is preinstalled.

- *AXIS Video Motion Detection* has been updated to version 4.5.0.

- *Axis Object Analytics* 1.0.22 is preinstalled.

10.5

AXIS OS 10.5.2

Release date: April/May 2021

Corrections

- Corrected an issue that on some occasions prevented an upgrade to firmware version 10.5.0.

- Corrected an issue that could cause O3C-based connections with the device to be interrupted.

AXIS OS 10.5.1

Release date: April 2021

Corrections

- Added an option to manually re-calibrate focus. Please do not re-calibrate until you have read the instructions related to this available here: *https://www.axis.com/files/manuals/Re-calibrationQ6074_6075.pdf*
  <u>Applies to</u>: AXIS Q6074/-E

AXIS OS 10.5.0

Release date: week 17 - 20 2021

Features

- OpenSSL has been upgraded to 1.1.1j to fix *CVE-2021-23841* and *CVE-2021-23840*.

- RTSP and HTTP stream URL:s now allow for filtering overlays based on overlay type. This is done by setting 'overlays=<all|text|image|application|off>' in the URL (only one value).
  <u>Applies to</u>: all products with overlay support

- Updated pjsip to version 2.10 to increase overall cyber security.
  <u>Applies to</u>: products with SIP support (AXIS I8016-LVE, AXIS A8207-VE/-VE MK II, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3245-LVE-3, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, AXIS Q9216-SLV and AXIS V5925)

- Added support for day-night shift in onscreen control.
  <u>Applies to</u>: AXIS P5654-E, AXIS P5655-E, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE and AXIS Q6135-LE

- Added support for defog and image stabilization in onscreen control.
  <u>Applies to</u>: AXIS Q6075/-E

- Added support for polygon privacy masks.
  <u>Applies to</u>: AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V, AXIS M3205-LVE and AXIS M3206-LVE

AXIS OS Release Notes

AXIS OS 10

- Added one shot auto focus. To set, go to **Settings > System > Plain config > PTZ**. Scroll down to UserAdv U1 and tick the check box **One shot AF**. Scroll down to the end of the page and click the **Save** button.
  <u>Applies to</u>: AXIS Q6074/-E and AXIS Q6075/-E/-S/-SE

- Added an option to manually re-calibrate focus. Please do not re-calibrate until you have read the instructions related to this available here: *https://www.axis.com/files/manuals/Re-calibrationQ6074_6075.pdf*
  <u>Applies to</u>: AXIS Q6075/-E/-S/-SE

- The occupancy level estimation is increased any time a person enters, regardless of previously recorded statistics.
  <u>Applies to</u>: AXIS P8815-2

- Q87 Zoom Sync is now a pre-installed ACAP to make it possible for a synchronized zoom movement between the visual and thermal lens. The visual zoom acts as a primary and the thermal zoom follows as a secondary. **Note!** This function only applies to AXIS Q87 cameras equipped with thermal zoom
  <u>Applies to</u>: AXIS Q8752-E

- Added the possibility to switch between HDMI and SDI in the web interface (**System > HDMI**).
  <u>Applies to</u>: AXIS V5925

- It is now possible to transmit audio to AXIS T6101 audio output.
  <u>Applies to</u>: AXIS P3245-LVE

- A new configuration check page have been added for ease of installation and troubleshooting, making it possible to verify configurations without physically being on site at the unit.
  <u>Applies to</u>: AXIS A8207-VE/-VE Mk II and AXIS I8016-LVE

- The call button LED behavior in the web interface has been clarified.
  <u>Applies to</u>: AXIS A8207-VE/-VE Mk II and AXIS I8016-LVE

- Added the feature to retrieve OAK in the web interface, found under Services/AVHS.
  <u>Applies to</u>: AXIS I8016-LVE

- Improved day/night switching algorithm.
  <u>Applies to</u>: AXIS I8016-LVE

- Added option to perform a factory default in combination with upgrading/downgrading. It's mandatory to factory default the product when downgrading to an older firmware.
  <u>Applies to</u>: AXIS I8016-LVE

Corrections

- Increased the number of allowed characters for event condition name to 512.

- Corrected an issue that prevented the use of some special characters in ONVIF passwords.

- Corrected an issue that prevented the Axis device to respond with "HTTP 403 Forbidden" when the source-ip address was blocked when using PreventDOSAttack in **Plain Config > System**. Previously "HTTP 401 Unauthorized" was returned.

- Corrected an issue that caused the video to be stretched if in corridor mode and cropped.
  <u>Applies to</u>: all products in *Group A on page 30*.

- Added possibility to reset occupancy level at a user-defined specific time.
  <u>Applies to</u>: AXIS P8815-2

- Corrected an issue that caused the video over HDMI to show the stream from overview instead of the selected view area.
  <u>Applies to</u>: all products in *Group C on page 31*.

- Improved image tuning to avoid ghosting of moving objects.
  <u>Applies to</u>: AXIS Q6010-E and AXIS Q6100-E

- Corrected an issue that caused already established secure connections such as HTTPS or O3C (one-click cloud connection) to be interrupted.
  <u>Applies to</u>: AXIS P3715-PLVE

- Corrected an issue when query=position sometimes did not show the right auto-iris state.
  <u>Applies to</u>: AXIS Q6215-LE

Limitations

- On products using capture mode 720p, the edges of the polygon privacy masks could be rough.
  <u>Applies to</u>: AXIS M3064-V and AXIS M30675-V

ACAP updates

- *Axis Object Analytics* 1.0.20 is pre-installed.

10.4

AXIS OS 10.4.5

Release date: March 2021

- AXIS Object Analytics 1.0.19 has been preinstalled. Go to *AXIS Object Analytics* for a list of supported products.

- Corrected an AXIS Object Analytics configuration issue that occurred while using HTTPS.

AXIS OS 10.4.3

Release date: March 2021

- Updated AXIS License Plate Verifier to version 1.8.4 in AXIS P1445-LE-3.

- Added option to perform a factory default in combination with upgrading/downgrading. It's mandatory to factory default the product when downgrading to an older firmware.
  <u>Applies to</u>: AXIS A8207-VE and AXIS A8207-VE Mk II.

AXIS OS 10.4.2

Release date: March 2021

Corrections

- Corrected an issue that made the PT functionality not work in combination with AXIS T99A10 Positioning Unit 24 V AC/DC.
  <u>Applies to</u>: AXIS Q1645/-LE, AXIS Q1647/-LE, ExCam XF Q1645, AXIS P1375/-E, AXIS P1377/-LE, F101-A XF P1377, AXIS P1378/-LE and AXIS Q1615/-LE Mk III.

AXIS OS 10.4.1

Release date: March 2021

- Corrected an issue that on rare occasions caused the image in one or more sensors to show horizontal lines or an oversaturated image.
  <u>Applies to</u>: AXIS Q6010-E and AXIS Q6100-E.

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AXIS OS 10.4.0

Features

- Added support for new action "Publish MQTT", available in the web interface via **Events > Device events > Rules setup**. This new action makes it possible to publish MQTT messages with custom topic and payload.

To watch this video, go to the web version of this document.

www.axis.com/products/online-manual/#t10164897

- OpenSSL upgraded to version 1.1.1i to fix *CVE-2020-1971*.

- Successful and failed user login attempts are now logged in detail when the *access log* parameter is enabled from **Plain Config > System > Access Log**.

- For products with view areas it is now possibile to select which source should be shown by default in the web interface. To set, go to **Settings > System > Plain config > Layout > Live view video** and select the number for the source.

- Added actions "Play audio clip while active" and "Stop playing audio clip" to the event system for products that support audio out.

- Added support for quad view.
  Applies to: AXIS Q6010-E and AXIS Q6100-E.

- Added TVI 4K 12.5/15 fps support on channel 1. Note: 4K mode disables channel 3 and it is no longer possible to use cameras connected to the third channel.
  Applies to: AXIS P7304

- Improved angle accuracy.
  Applies to: AXIS D2110-VE.

- Added support for portcast in order to support AXIS T6101- and AXIS T6112-based solutions.
  Applies to: AXIS Q6135-LE.

- Added support for allocation of max-power via Link Layer Discovery Protocol (LLDP) in addition to PoE-class based power allocation. This allows the switch to allocate less power to the camera and potentially a greater number of PoE devices can be connected to the switch. LLDP can be enabled in **Settings > System > PlainConfig > Network >LLDP POE > LLDP Send Max PoE**.
  Applies to: AXIS M3115-LVE and AXIS M3116-LVE.

Corrections

- Corrected an issue that erased the password from the MQTT broker connection settings when editing settings occasionally, which required the user to re-enter the password when it happened.

- Corrected an issue that caused the MQTT configuration in the device to get corrupt on rare occasions.

- Corrected an issue that could cause an MQTT event to be duplicated upon registering the same event multiple times.

- Updated digital input LogicalState metadata API to consistently use 0/1 on all camera models.

- Corrected an issue that caused the device to send an EPRT command when transferring an image or video via FTP instead of an EPSV command.

- Corrected an issue where a network share used as a recipient could get its properties overwritten by another network share created from the Storage page.

- Corrected nice names for the PreventDoSAttack parameters in **Settings > System > Plain Config > System > PreventDoSAttack**.

- Improved Link Layer Discovery Protocol (LLDP) system stability.

- Improved the PoE budget management for AXIS S3008.

- Corrected an issue that on rare occasions caused the image to turn green after a power loss.
  Applies to: AXIS Q6215-LE

- Enabled device preset number for a server preset to be set by user.
  Applies to: AXIS P7304 and AXIS M7104.

- Corrected an issue with the installation height parameter that previously was truncated to an integer value.
  Applies to: AXIS D2050-VE and AXIS D2110-VE.

- Improved system stability for multisensor products when streaming multiple video streams at the same time.

Limitations

- When connecting a camera to AXIS M7104 Network Video Encoder on channel 2 only, there are sometimes image disruptions resulting in "No video". By connecting the cameras from left to right starting with channel 1, these disruptions are removed.

ACAP updates

- *AXIS Object Analytics* (Machine Learning Processing Unit) is updated to version 1.0.18.

- *AXIS Object Analytics* (Deep Learning Processing Unit) is updated to version 1.0.18.

10.3

AXIS OS 10.3.4

Release date: February 2021

- Corrected an issue with mirrored image that occurred on some units.
  Applies to: AXIS P3807-PVE and D101-A XF P3807.

AXIS OS 10.3.3

Release date: February 2021

- Fixed the camera booting issue when the cover top is off for AXIS M3077-PLVE.

AXIS OS Release Notes

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AXIS OS 10.3.2

Release date: January 2021

- Improved manual focus adjustment.
  <u>Applies to</u>: AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE and ExCam XPT Q6075.

- Corrected an issue where gain got higher value when toggling AGC on/off.
  <u>Applies to</u>: AXIS M3077-PLVE.

AXIS OS 10.3.1

Release date: January 2021

- Added missing help text sections for AXIS P3255-LVE.

AXIS OS 10.3.0.2

Release date: January 2021

- Corrected an issue that sometimes made the IR-LED not work as expected.
  <u>Applies to</u>: AXIS P1447-LE, AXIS P1448-LE and AXIS P1455-LE.

AXIS OS 10.3.0.1

Release date: January 2021

- **AXIS M1134 and AXIS M1135/–E**:
  - Products with Hardware ID 924.2, 924 and 925 only supports firmware 10.3.0.1 and later.
  - Products with HardwareID 7A7.2, 7A7 and 7A8 supports all firmware versions.
  - The HardwareID can be found in **Plain config > Properties > System > HardwareID**
  - For more information, see *https://www.axis.com/support/faq/FAQ116512*

- **AXIS P3245–LV/–LVE, AXIS P3247–LV/–LVE and AXIS P3248–LV/–LVE**:
  - Products with HardwareID 910.1 and 910.2 only support firmware 10.3.0.1 and later.
  - Products with HardwareID 79F.1 and 79F.2 support all firmware versions.
  - The HardwareID can be found in **Plain config > Properties > System > HardwareID**
  - For more information, see *https://www.axis.com/support/faq/FAQ116511*

- **AXIS P3245–V/–VE**:
  - Products with HardwareID 90F.1 and 90F.2 only support firmware 10.3.0.1 and later.
  - Products with HardwareID 79E.1 and 79E.2 support all firmware versions.
  - The HardwareID can be found in **Plain config > Properties > System > HardwareID**
  - For more information, see *https://www.axis.com/support/faq/FAQ116511*

- **AXIS P1447-LE, AXIS P1448-LE, AXIS P1455-LE:**

    - Products with HardwareID 90B, 90C and 90D only supports firmware 10.3.0.1 and later.

    - Products with HardwareID 7DD, 763 and 764 supports all firmware versions.

    - The HardwareID can be found in **Plain config > Properties > System > HardwareID**

    - For more information, see *https://www.axis.com/support/faq/FAQ116510*

AXIS OS 10.3.0

Breaking changes

- Removed support for trigger data functionality. Support for trigger data will continue on 9.80 LTS.

Features

- Updated OpenSSL to version 1.1.1h to increase overall minimum cyber security level.

- MQTT is now activated by default upon power loss or reboot if MQTT was enabled prior to it.

- Added the possibility to set a wear level for the SD card that the event system can trigger on. This is set and displayed on the **Storage** page if the SD card supports this feature.

- Added support for audit logging when a user exports video from the device's edge recording (SD card, network share).

- Improved video streaming stability in multi-stream and ONVIF Audio Backchannel scenarios.

- Added support for allocation of max-power via Link Layer Discovery Protocol (LLDP) in addition to PoE-class based power allocation for selected products. This allows the switch to allocate less power to the camera and potentially a greater number of PoE devices can be connected to the switch. LLDP can be enabled in **Settings > System > PlainConfig > Network >LLDP POE > LLDP Send Max PoE**. Go to *LLDP max-power allocation* for more information.

- Camstreamer ACAP is no longer preinstalled on newer versions of AXIS V5925. Voucher for download is included in box.

- Added support for controlling PTZ using the VISCA protocol over IP and RS232 for AXIS V5925.

- Added the feature *image freeze* for AXIS V5925.

- Improved controls for switching video output in onscreen controls for AXIS V5925.

- Added support for live occupancy metrics and stateful events based on occupancy thresholds for AXIS P8815-2.

- Improved autofocus accuracy.
  Applies to: AXIS P1367-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE, AXIS Q3518-LVE and AXIS Q3527-LVE.

- Added installation feature *quad and 360 view* for newer fisheye cameras like AXIS M3067-P and AXIS M3068-P.

- Added support for a new revision of the audio solution in AXIS M7304. The new revision is included in products with part number 01680-001-02. Note that these products will not work with firmware older than the current release.

Corrections

- Corrected an issue that caused the audio transfer over HTTPS to not work properly and with that, the audio-gain-level behavior was also reverted back to the state it was known in AXIS OS releases up to AXIS OS 10.0.2. It is therefore

mandatory to upgrade to AXIS OS 10.3 when experiencing audio-related issues on Axis devices running on AXIS OS 10.1 and 10.2. Upon release of AXIS OS 10.3, AXIS OS 10.1 and 10.2 will be made unavailable for download from *www.axis.com*.

- Corrected an issue that prevented setting the gain individually on the left and right channel on products with stereo audio input.

- Corrected an issue that caused PKCS#12-formatted certificate uploads to fail when certain special characters were used as a password.

- Corrected text for time offset in the **Date & Time** page, the offset is now shown in milliseconds instead of seconds.

- Corrected an issue that caused the value of Quality of Service (QoS) to not be respected in always multicast mode.

- Corrected an issue that prevented the device to stream in always-multicast mode after the video stream processing has been restarted.

- Corrected an issue where overlays sometimes could be placed incorrectly in the video stream.
  Applies to: products in *Group C on page 31*.

- Corrected a focus issue that occurred after upgrade.
  Applies to: AXIS Q1615/-LE Mk III, AXIS Q1645/-LE and AXIS Q1647/-LE.

- Corrected an issue that always displayed a current focal length value of 0 in overlays for AXIS Q1798-LE.

- Corrected an issue for AXIS P1377-LE that did not give the entire OID list and their corresponding information when polling via SNMP.

- Corrected an issue that on rare occasions could cause the live image to blink in dark conditions.
  Applies to: products in *Group A on page 30*.

- Corrected an issue with pause-frame handling that could cause network disconnections if pause-frames were enabled and used in the network.
  Applies to: products in *Group A on page 30* and *Group B on page 30*.

- Corrected an issue that prevented the device to utilize the available network bandwidth in high-latency networks such as 4G cellular network.
  Applies to: products in *Group A on page 30* and *Group B on page 30*.

- Removed 100Mbit/s and 10Mbit/s half and full duplex network speed options as valid available selections from **Plain Config > Network > Connection Type** for AXIS Q6010-E.

- Corrected header response videostatus.cgi in which headers were in same line to individual header lines for AXIS P7304.

- Corrected an issue to allow users to be able to select balanced in for audio in AXIS V5925.

- Corrected an issue that caused video clients to not display a low-fps video stream due to missing base fps info in VUI timing info.
  Applies to: products in *Group A on page 30* and *Group B on page 30*.

ACAP updates

- *AXIS Object Analytics* (Machine Learning Processing Unit) is updated to version 1.0.17.

- *AXIS Object Analytics* (Deep Learning Processing Unit) is updated to version 1.0.17.

- *AXIS Video Motion Detection* has been updated to version 4.4.9

- *AXIS Guard Suite* has been updated to version 2.2.8

AXIS OS Release Notes

AXIS OS 10

10.2

AXIS OS 10.2.2

Release date: 2020-12-02

Features

- Added health monitoring of radar transmitter and receiver for AXIS D2110-VE.

Corrections

- Corrected an issue that sometimes made AXIS D2110-VE lose the ability to detect objects.

AXIS OS 10.2.1

Release date: 2020-11-20

ACAP updates

- Updated *AXIS License Plate Verifier* to version 1.80.0 for AXIS P1445-LE-3.

AXIS OS 10.2.0

Release date: 2020-11-10

Features

- From this release all camera products support SRTP (Secure Real-time Transport Protocol).

- Updated Apache web server to version 2.4.46 to increase overall minimum cybersecurity level.

- Support for supervised digital audio has been added to products with digital audio. Four new events for supervising the digital audio input have been added to the event system in the web interface.

- Removed support for AXIS Internet Dynamic DNS Service (*axiscam.net*). For more information, see *https://www.axis.com/support/technical-notes/broadband-connection*.

- Removed the previously deprecated VAPIX Record/Play CGI that allowed for playback of MJPEG recordings. It is recommended to use the RTSP protocol instead with support for all formats (H.264, H.265, MJPEG, etc.)

- Removed support for NAT Traversal. It is recommended to use AXIS Secure Remote Access or similar services instead. The following NAT Traversal related VAPIX parameters have been removed:

    - Network.UPnP.NATTraversal.Active

    - Network.UPnP.NATTraversal.Enabled

    - Network.UPnP.NATTraversal.ExternalIPAddress

    - Network.UPnP.NATTraversal.MaxPort

    - Network.UPnP.NATTraversal.MinPort

    - Network.UPnP.NATTraversal.Router

- Added support for ONVIF profile T to AXIS Q6215-LE. Go to *ONVIF profile T* for more information.

AXIS OS Release Notes

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- Added support for LLDP allocation of max-power for AXIS S3008. Enabled per default in AXIS S3008, which allows for smarter PoE-management when the connected Axis device has support for and has this feature enabled as well. Go to *LLDP max-power allocation* for more information.

- Added support for single sensor mode for AXIS D2110-VE.

- Added support for mirroring and rotation in dual view.
  Applies to: AXIS P3715-PLVE, AXIS P3717-PLE and AXIS P3719-PLE.

Corrections

- Corrected an issue that caused the *last will & testament* message not to work. Therefore, the default behavior for connect, disconnect and last will & testament messages have been modified. By default a common topic, {device serial number}/event/connection, and a common payload structure will be used for such messages.

- Corrected an issue that sometimes could make it impossible to export the full length of recordings.

- Corrected an issue that caused the device to stop video streaming over multicast after receiving multiple RTSP PLAY requests with "npt=0.000-" payload.

- Corrected an issue that caused an error message to pop up when pressing the test button of an event using HTTP recipients.

- Corrected an issue with riris adjustments for AXIS Q6215-LE.

- Corrected an issue that caused parallel HTTPS cgi requests to fail on rare occasions.
  Applies to: AXIS P3715-PLVE, AXIS Q1615/-LE Mk III, AXIS Q3527-LVE, AXIS Q6074/-E, AXIS Q6075/-E/-S, AXIS Q9216-SLV.

- Corrected an issue that sometimes prevented adjustment of the focus window.
  Applies to: AXIS P1367/-E, AXIS P1368-E, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS Q1615/-LE Mk III, AXIS Q1645/-LE, AXIS Q1647/-LE.

- P-Iris lens driver selection menu is now hidden when an i-CS lens is connected. Selecting P-Iris driver for a connected P-Iris lens also works as expected now.
  Applies to: AXIS Q1615/-LE Mk III, AXIS Q1645/-LE, AXIS Q1647/-LE.

ACAP updates

- *AXIS Object Analytics Beta* (Deep Learning Processing Unit) has been updated to version 1.0.15.

- *AXIS Object Analytics* (Machine Learning Processing Unit) has been updated to version 1.0.15.

10.1

AXIS OS 10.1.2

Release date: 2020-10-05

Corrections

- Improved manual focus behavior for AXIS Q6074/-E and AXIS Q6075/-E/-S.

- Corrected an issue that caused the privacy masks to be rendered incorrectly affecting AXIS FA54 and AXIS Q6010-E.

- Corrected a stability issue that could occur when AXIS P3719-PLE or AXIS Q6010-E was connected to a VMS and used motion stability.

AXIS OS Release Notes

AXIS OS 10

AXIS OS 10.1.1

Release date: 2020-10-01

Known bugs/limitations — AXIS P8815-2 only

- Export data function within the **Statistics** page produces the last 30 days of data.

- Only the live view and live counts from primary device are shown in the **Statistics** page.

- Primary and secondary devices need to be restored to factory default settings to renew certificate.

- Data that has previously been successfully reported to server cannot be re-sent.

- UTC is utilized in the time stamps for data reported to server.

- Turning back the date and time of the device will result in application not counting, the device needs to be restarted to resume normal operation.

AXIS OS 10.1.0

Release date: 2020-09-23

Features

- Added support for Remote Syslog API which enables Axis devices to send log messages to a remote syslog server. Remote Syslog can be configured via the web interface under **Settings > System > TCP/IP** or using the VAPIX API that can be found *here*. Look at *this example* on how to use this.

- The download.cgi API has been removed. The exportrecording.cgi API which was introduced in 5.60 is the substitute.

- The parameters Time.ServerTime and Time.ServerDate that have been deprecated for some time have now been removed.

- Added support for a new overlay modifier "%v" that displays seconds in 1/1000 fractions.

- Added support for HTTP Strict Transport Security (HSTS) when using HTTPS

- Added support for certificate-based client authentication in MQTT.

- Support for average bitrate (ABR) has been added to selected products, see *Average bitrate (ABR)* for more information.

- A factory default is now mandatory when trying to downgrade the device. See *How to downgrade* for more information.

- Improved performance when building up an RTSP video stream by 30%.

- Updated UPnP to version 1.8.7 which patches *CVE-2020-12695* (Callstranger).

- The following HTTP headers are now configured per default to increase overall cybersecurity level:

  - X-Frame-Options: SAMEORIGIN

  - X-Content-Type-Options: nosniff

  - X-XSS-Protection: 1; mode=block.

- Changes in 802.1x:

  - Added support for IEEE 802.1x-2010 which provides support for EAPoL version 3 and changed default IEEE 802.1x EAPoL settting from version 1 to 3.

  - Added support for configuring 802.1X without CA certificate. This will make the device authenticate on any network, not just the trusted one.

  - The EAP-TLS-identity field in the 802.1x configuration is now by default filled with "axis-<serial-number>" value.

- IEEE 802.1x is enabled per default on Axis products that support AXIS Edge Vault, e.g. AXIS S3008. This enables Axis products to utilize Axis device ID via IEEE 802.1AR.

- Added autotracking 2 for AXIS P5654-E and AXIS P5655-E.

- Removed support for SMB versions lower than 2.1 in AXIS S3008.

- Added the possibility to use AXIS Q6010-E in solo mode without having a PTZ camera connected.

- Added automatic gain control for AXIS M3075-V, see *Automatic gain control* for more information.

ACAP updates

- *AXIS License Plate Verifier* has been updated to version 1.7.2. Pre-installed on AXIS P1445 LE-3 only.

- *AXIS Guard Suite* has been updated to version 2.2.7.

- *AXIS Video Motion Detection* has been updated to version 4.4.8.

- *AXIS Object Analytics Beta* has been pre-installed in another few selected products, e.g. AXIS Q1615/-LE Mk III which is compatible with AXIS Object Analytics using deep learning.

10.0

AXIS OS 10.0.2

Corrections

- Corrected an issue that sometimes caused event triggered recordings to fail.

- Corrected an issue for AXIS S3008 that prohibited the use of a new firmware.

AXIS OS 10.0.1

Release date: 2020-07-06

Corrections

- Corrected an issue that prevented mute to work.
  Applies to: AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V and AXIS P3719-PLE.

- Corrected an issue that prevented the heater from working properly.
  Applies to: AXIS P3245-V/-VE/-LV/-LVE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE and AXIS Q3518-LVE.

AXIS OS 10.0.0

Release date: 2020-11-10

Features

- For products with audio clips it is now possible to use MP3 format.

- ONVIF profile T has been added to ExCam XF Q1785 and F101-A XF Q1785. Go to *ONVIF profile T* for more information.

- LLDP allocation for max-power is available for AXIS M3205-LVE and AXIS M3206-LVE. This allows the switch to allocate less power to the camera and potentially a greater number of PoE devices can be connected to the switch. LLDP allocation for max-power can be enabled in **Settings > System > PlainConfig > Network > LLDP POE > LLDP Send Max PoE**. Go to *LLDP max-power allocation* for more information.

- Added VAPIX API for enabling/disabling all privacy masks.
  <u>Exception</u>: AXIS D2050-VE.

- Administrator credentials are now required to access privacymask.cgi.
  <u>Exception</u>: AXIS D2050-VE.

- Added the possibility to retrieve the device Owner Authentication Key (OAK) in the web interface. Note that this functionality requires that the product have direct access to the internet.

- Updated Apache to version 2.4.43 to increase overall cyber security level.

- Updated OpenSSL to version 1.1.1g to increase overall minimum cyber security level.

Corrections

- Corrected an issue that sometimes could cause problems with edge sync between the camera and Genetec VMS.

- Corrected an issue that prevented cross device triggering to work properly when IPv6 was used.

- Corrected an issue that sometimes made it impossible to edit action rules after upgrade.

- Corrected an issue in products with temperature compensation that could potentially cause bad focus.

- Corrected an issue that caused AXIS Q6215-LE to get stuck with the IR-cut filter off after power-loss.

- Corrected an issue in radar products where the user interface did not show the current values when radar transmission was toggled.

ACAP updates

- *AXIS License Plate Verifier* has been updated to version 1.7.0. Pre-installed on AXIS P1445 LE-3 only.

- *AXIS Object Analytics Beta* version 1.0.4 has been pre-installed.

LTS 2020 - 9.80

AXIS OS 9.80.3.5

Features

- Updated Apache to version 2.4.48 to increase overall cybersecurity level.

- Updated curl to version 7.78.0 to increase overall cybersecurity level.

Corrections

- The porttest-cgi is not used and is now removed from the platform.

- Corrected an issue that could cause an RTSP stream to stop after 60+ seconds if streamed to an openRTSP client.

- Corrected an issue that interrupted the NTP-time-sync between the Axis device and NTP-server when the NTP-server was unstable and suffered fluctuating time-changes.

- Made sure audio and video frames are grouped correctly in exportrecording.cgi.

- Corrected the following CVEs:

  - *CVE-2021-31988*

  - *CVE-2021-31987*

  - *CVE-2021-31986*

  - *CVE-2021-27219*

  - *CVE-2021-27218*

  - *CVE-2020-26558*

- Corrected an issue that prevented the mute signal to be properly transmitted to the audio controller.
  <u>Applies to</u>: AXIS Companion Cube L/-LW and AXIS M1065-L/-LW

AXIS OS 9.80.3.4

Only for AXIS Q6074/-E, AXIS Q6075/-E, D201-S XPT Q6075 and ExCam XPT Q6075.

Features

- General improvements to the LTS 2020 platform.

- Hardware ID updates (the Hardware ID can be found in **Plain config > Properties > System > HardwareID**):

  - Products with HardwareID 918, 917, 916, 915 and 914 only support firmware 10.6.5 and later, or 9.80.3.4 and later on LTS 2020.

  - Products with HardwareID 7D9, 7DA, 7B0, 7B1 and 7FA support all firmware versions.

AXIS OS 9.80.3.3

Features

- Updated OpenSSH to version 8.6p1 to increase the overall minimum cyber security level.

- Added support for dynamic power allocation via Link Layer Discovery Protocol (LLDP) in addition to PoE-class based power allocation. This allows the switch to allocate less power to the camera and potentially a greater number of PoE devices can

be connected to the switch. LLDP can be enabled in Settings > System > PlainConfig > Network > LLDP POE > LLDP Send Max PoE.
Applies to: AXIS M3115-LVE and AXIS M3116-LVE

Corrections

- Corrected an issue that did not account for MTU packet fragmentation for IEEE 802.1x authentication. Previously the Axis device was not able to authenticate properly against an 802.1x network when the MTU was configured to 1410 or lower.

- Corrected an issue that prevented the device to stream in always-multicast mode after the video stream processing was restarted.

- Extended the 802.1x EAP-Identity field character limit from 32 to 128 characters.

- Increased the number of characters allowed in the name of an Action Event Condition, from 80 to 512.

- Corrected an issue that caused already established secure connections such as HTTPS or One-Click Cloud Connections to be interrupted.
Applies to: AXIS Q6074/-E and AXIS Q6075/-E/-S

- Corrected an issue that caused distorted images in cropped corridor mode.
Applies to: AXIS D2050-VE, AXIS FA54, AXIS M3057-PLVE, AXIS M3058, AXIS P1367/-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS P3717-PLE, AXIS P3807-PVE, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, AXIS Q3527-LVE, AXIS Q6215-LE, ExCam XF Q1785, F101-A Q1785 and XP40-Q1785

LTS 2018 - 8.40

AXIS OS 8.40.4.3

Features

- Updated Apache to version 2.4.48 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1l to increase overall cyber security level.

- Updated curl to version 7.78.0 to increase overall cybersecurity level.

- Updated OpenSSH to version 8.6p1 to increase the overall minimum cybersecurity level.

Corrections

- Corrected an issue that in combination with some VMSes and low resolution could cause brief disconnections in the video stream.

- Improved memory management in the network services daemon.

- Improved memory management in the DHCP lease update daemon.

- Corrected an issue that prevented the Axis device to respond with "HTTP 403 Forbidden" when the source-ip address was blocked when using PreventDOSAttack in **Plain Config > System**. Previously "HTTP 401 Unauthorized" was returned.

- Corrected nice names for the PreventDoSAttack parameters in **Settings > System > Plain Config > System > PreventDoSAttack**.

- Corrected an issue that did not account for MTU packet fragmentation for IEEE 802.1x authentication. Previously the Axis device was not able to authenticate properly against an 802.1x network when the MTU was configured to 1410 or lower.

- Corrected an issue that prevented streaming in always-multicast mode on rare occasions.

- Extended the 802.1x EAP-Identity field character limit from 32 to 128 characters.

- Corrected an issue that interrupted the NTP-time-sync between the Axis device and NTP-server when the NTP-server was unstable and suffered fluctuating time-changes.

- Corrected an issue that could cause an RTSP stream to stop after 60+ seconds if streamed to an openRTSP client.

- Corrected the following CVE:s

    - *CVE-2021-31988*

    - *CVE-2021-31987*

    - *CVE-2021-31986*

    - *CVE-2021-27219*

    - *CVE-2021-27218*

    - *CVE-2020-26558*
      Affected products: AXIS M1045-LW, AXIS M1065-LW, AXIS M3045-WV, AXIS M3044-WV, AXIS Companion Cube LW and AXIS Companion Dome WV

    - *CVE-2019-12450*

- Corrected an issue that caused images to be unusually dark when using WDR mode.
  Applies to: AXIS Companion Bullet LE, AXIS Companion Eye L/-LVE, AXIS M1124/-E, AXIS M1125/-E, AXIS M2025-LE, AXIS M3104-L/-LVE, AXIS M3105-L/-LVE, AXIS P1244, AXIS P1245, AXIS P1254, AXIS P1264, AXIS P1265, AXIS P1275, AXIS P1280-E, AXIS P1290-E, AXIS P1364/-E, AXIS P1365/-E Mk II, AXIS P1435-E/-LE, AXIS P3224-V/-VE/-LV/-LVE Mk II, AXIS P3225-V/-VE/-LV/-LVE Mk II, AXIS P3235-LV/-LVE, AXIS P3374-V/-LV, AXIS P3375-V/-VE/-LV/-LVE,

AXIS Q1615/-E Mk II, AXIS Q1941-E, AXIS Q1941-E PT Mount, AXIS Q1942-E, AXIS Q1942-E PT Mount, AXIS Q3615-VE, AXIS Q3617-VE, AXIS Q6154-E, AXIS Q8641-E, AXIS Q8642-E and XP40-Q1942

- Corrected an issue that caused installation of ACAP using packagemanager.cgi to fail.
  <u>Applies to</u>: AXIS M3045-V

- Improved system stability when streaming multiple video streams at the same time.
  <u>Applies to</u>: AXIS FA54

- Improved stability in recording management.
  <u>Applies to</u>: AXIS Companion Cube L/-LW, AXIS Companion Dome V/-WV, AXIS M1045-LW, AXIS M1065-L/-LW, AXIS M2026-LE, AXIS M3044-V/-WV, AXIS M3045-V/-WV, AXIS M3046-V, AXIS P9106-V, AXIS M3106-L/-LVE

AXIS OS 8.40.4.2

Features

- Updated OpenSSL to version 1.1.1k to fix *CVE-2021-3449* and *CVE-2021-3450*.

- Updated curl to version 7.73.0 to increase overall cybersecurity level.

Corrections

- Improved Link Layer Discovery Protocol (LLDP) system stability.

- Corrected an issue that caused IEEE 802.1x network authentication to fail sometimes after unexpected reboots.

- Corrected an issue in oak.cgi that could cause invalid requests.

- Corrected an issue that caused the value of Quality of Service (QoS) to not be respected in always multicast mode.

- Corrected an issue that caused PKCS#12-formatted certificate uploads to fail when certain special characters were used as a password.

- Corrected an issue that caused video clients to not display a low-FPS video stream due to missing base FPS info in VUI timing info.
  <u>Applies to</u>: AXIS FA54, AXIS M3057-PLVE, AXIS M3058-PLVE, AXIS P1367/-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE and AXIS Q3518-LVE

- Corrected an issue that could cause live image to blink in dark conditions on rare occasions.
  <u>Applies to</u>: AXIS FA54, AXIS M3057-PLVE, AXIS M3058-PLVE, AXIS P1367/-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE and AXIS Q3518-LVE

- Corrected an issue with pause-frame handling that could cause network disconnections if pause-frames were enabled and used in the network.
  <u>Applies to</u>: AXIS FA54, AXIS M3057-PLVE, AXIS M3058-PLVE, AXIS P1367/-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE and AXIS Q3518-LVE

- Corrected an issue that prevented the device to utilize the available network bandwidth in high-latency networks such as 4G cellular network.
  <u>Applies to</u>: AXIS FA54, AXIS M3057-PLVE, AXIS M3058-PLVE, AXIS P1367/-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LVE, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE and AXIS Q3518-LVE

AXIS OS 8.40.4.1

Features

- Updated Apache to version 2.4.46 to increase overall cybersecurity level.

- Added support for HTTP Strict Transport Security (HSTS) when using HTTPS.

- Reduced time to build-up an RTSP video stream by 30% and more.

Corrections

- Corrected an issue that caused an error message to pop up when pressing the test button of an event using HTTP recipients.

- Corrected an issue that caused distorted H.265 streams on rare occasions.
  Applies to: AXIS M2026-LE Mk II, AXIS M3015, AXIS M3016, and AXIS M3106-L/-LVE Mk II

- Corrected an issue that could cause image to shake when Electronic Image Stabilization (EIS) was activated during high zoom (x32) operations.
  Applies to: AXIS Q1785-LE and AXIS Q1786-LE

LTS 2016 - 6.50

AXIS OS 6.50.5.5

Features

- Updated Apache to version 2.4.48 to increase overall cybersecurity level.

- Updated OpenSSH to version 8.6p1 to increase the overall minimum cybersecurity level.

- Updated curl to version 7.78.0 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1l to increase overall minimum cybersecurity level.

Corrections

- Corrected the following CVEs:

    - *CVE-2021-31988*

    - *CVE-2021-31987*

    - *CVE-2021-31986*

    - *CVE-2021-27219*

    - *CVE-2021-27218*

    - *CVE-2019-12450*

- Corrected an issue that caused video clients such as VLC to not display a low-FPS video stream due to missing base FPS info in VUI timing info.

AXIS OS 6.50.5.4

Features

- Updated OpenSSL to version 1.1.1k to fix *CVE-2021-3449* and *CVE-2021-3450*.

Corrections

- Corrected an issue that caused the value of Quality of Service (QoS) to not be respected in always multicast mode.

AXIS OS 6.50.5.3

Features

- Updated Apache to version 2.4.46 to increase overall cyber security level.

Corrections

- Corrected an issue that caused a test button in the web interface to not work when mounting network-attached atorage (NAS) configured with SMB v3.

- Added a sensitivity parameter for tampering detection in PlainConfig that can now be adjusted by the user.
  Applies to: AXIS P1244, AXIS P1245, AXIS P1254, AXIS P1264, AXIS P1265, AXIS P1275, AXIS P1364/-E, AXIS P1365/-E Mk II and AXIS P1435-E/-LE

- Corrected an issue that caused a failure to send images with action rules to email recipients.
  Applies to: AXIS P1244, AXIS P1245, AXIS P1254, AXIS P1264, AXIS P1265, AXIS P1275, AXIS P1364/-E, AXIS P1365/-E Mk II and AXIS P1435-E/-LE

AXIS OS Release Notes

Product groups

Product groups

Features or corrections are sometimes applied to a group of products based on the same platform. The groups are listed below and are sometimes referenced in the release notes. The products in the groups are all available on the active track.

Group A

• AXIS A8207-VE • AXIS A8207-VE Mk II • AXIS D2050-VE • AXIS FA54 • AXIS M3057-PLVE • AXIS M3058-PLVE • AXIS P1367/-E • AXIS P1368-E • AXIS P1445-LE • AXIS P1445-LE-3 • AXIS P1447-LE • AXIS P1448-LE • AXIS P3227-LV/-LVE • AXIS P3228-LV/-LVE • AXIS P3715-PLVE • AXIS P3717-PLE • AXIS P3807-PVE • AXIS P8815-2	• AXIS Q1645/-LE • AXIS Q1647/-LE • AXIS Q1659 • AXIS Q1700-LE • AXIS Q1785-LE • AXIS Q1786-LE • AXIS Q3515-LV/-LVE • AXIS Q3517-LV/-LVE/-SLVE • AXIS Q3518-LVE • AXIS Q3527-LVE • AXIS Q6215-LE • D101-A XF P3807 • ExCam XF P1367 • ExCam XF Q1645 • ExCam XF Q1785 • F101-A XF P1367 • F101-A XF Q1785 • XP40–Q1785

Group B

• AXIS D2110-VE • AXIS I8016-LVE • AXIS M1134 • AXIS M1135/-E • AXIS M1137/-E • AXIS M3057-PLVE Mk II • AXIS M3067-P • AXIS M3068-P • AXIS M3077-PLVE • AXIS M3115-LVE • AXIS M3116-LVE • AXIS M7104 • AXIS P1375/-E • AXIS P1377/-LE • AXIS P1378/-LE • AXIS P1455-LE • AXIS P1455-LE-3 • AXIS P3245-V/-VE/-LV/-LVE • AXIS P3245-LVE-3 • AXIS P3247-LV/-LVE	• AXIS P3248-LV/-LVE • AXIS P3255-LVE • AXIS P3925-R/-LRE • AXIS P3935-LR • AXIS P5654-E • AXIS P5655-E • AXIS P7304 • AXIS Q1615-/LE Mk III • AXIS Q1798-LE • AXIS Q3819-PVE • AXIS Q6074/-E • AXIS Q6075/-E/-S/-SE • AXIS Q6078-E • AXIS Q6135-LE • AXIS Q6315-LE • AXIS Q8752-E • AXIS V5925 • AXIS V5938 • ExCam XPT Q6075 • F101-AXF P1377

Group C

- AXIS M3064-V
- AXIS M3065-V
- AXIS M3066-V
- AXIS M3075-V
- AXIS M3205-LVE
- AXIS M3206-LVE
- AXIS Q9216-SLV

Group D

- AXIS P3719-PLE
- AXIS Q6010-E
- AXIS Q6100-E