AXIS OS Release Notes

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About

Welcome to the AXIS OS Release Notes, a repository for the release notes about new features, security and other improvements for different AXIS OS tracks. *AXIS OS* is the Linux-based operating system used in most of your Axis network devices. It's purpose-built to live up to the most important criteria(s) for network devices: high standards for cybersecurity, ease of integration, quality, and long-term value.

- Release notes for the archived AXIS OS releases are accessible in the *AXIS OS Release Notes Archive*.

- More information about the AXIS OS upgrade recommendations and upgrade strategy can be found in the *AXIS OS Lifecycle*.

- In the *AXIS OS Knowledge base* you will find more information about AXIS OS features and functionality.

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AXIS OS 11

AXIS OS 11

Go to *Products on the active track – AXIS OS 11 on page 81* for a list of products on this track.

AXIS OS 11.10

Release date: 2024-04-16 – 2024-04-25

AXIS OS 11.10 release update
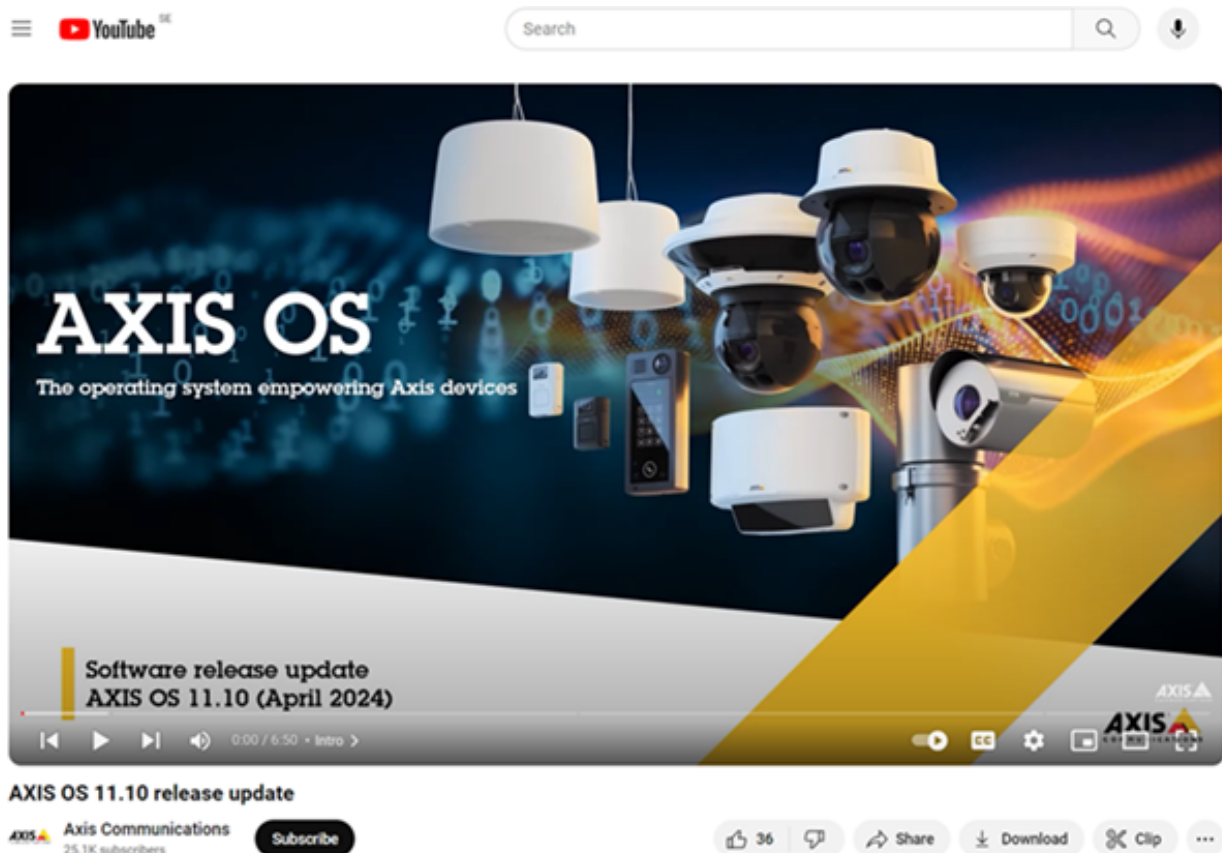
The AXIS OS 11.10 release is out. Watch the *release update video* that summarizes the highlights, or read through the complete list of changes below.

Features for all products

- Added support for running applications that use container functionality without root privileges.

- Added support for the "Erase Configuration" action in the event system for all Axis products. Previously, it was supported only by Axis intercom products. Erase Configuration will factory default the device when the action rule is triggered.

- Added support for dynamic power saving mode in the web interface.

- Added support for Control Board and Joystick.

- Added the possibility to "send video clip through HTTP/HTTPS" with MJPEG.

- Added an information note to "set export range" header which states that it is the camera's time/time-zone that applies when trying to export.

- Added error messages when installing certificate files concatenate multiple certs. This is not currently supported.

- Removed legacy overlay image CGIs i.e. create_overlay, overlay_set, overlay_del, overlay_image_formats, overlay_list.

- Made preview mode visible for all cameras.

- Set ownership of ACAP manifest files to root user and permissions to read-only.

Cybersecurity updates

- Addressed CVE-2024-0066. For more information, please visit the *Axis vulnerability management portal*.

- Updated OpenSSL to version 1.1.1x to increase overall cybersecurity level.

- Updated *OpenSSL to version 3.0.13* to increase overall cybersecurity level.

- Updated *cURL to version 8.7.1* to increase overall cybersecurity level.

- Updated runc-opencontainers to version 1.1.12 to increase overall cybersecurity level.

Analytics updates

- Corrected an issue where IR light setting was not preserved after camera upgrades.

  Applies to: All products with IR Illumination support

- Axis object analytics has been added to the analytics menu in the web interface.

- Updated Video Motion Detection to version 4.5.8.

- Updated ALPV to version 2.10.13.

  Applies to: AXIS P1445-LE-3, AXIS P1455-LE-3, AXIS P1465-LE-3, AXIS P3245-LE-3 and AXIS P3265-LE-3

- Enabled video-based features i.e. Time In Area, Crossline Counting, Occupancy in Area and Scene Autocalibration in Axis Object Analytics.

  Applies to: AXIS Q1656-DLE

- AXIS Object Analytics:

    - General improvement of AOA performance.

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, visit the *AXIS Object Analytics*.

Product specific features

- Added support for Network radar pairing (Edge-to-edge technology). Either the radar or video stream can be streamed at a time, when pairing is enabled.

  Applies to: AXIS Q1700-LE

- Added support for Power Meter.

  Applies to: AXIS M3215-LVE and AXIS M3216-LVE

- Added support for Barrel Distortion Correction (BDC).

  Applies to: AXIS P4705-PLVE, AXIS P4707-PLVE and AXIS P4708-PLVE

- Added the possibility to set audio output delay in the web interface, to sync audio with video.

  Applies to: AXIS D1110

- Added the possibility to create an event per modbus sensor in Axis Sensor Metrics Dashboard.

Applies to: AXIS F9111, AXIS F9114 and AXIS F9114-B

- Added new video channel called pinned view.

    Applies to: AXIS F9114 Main Unit and AXIS F9114-B Main Unit

- Enabled SIP support.

    Applies to: AXIS M4215-LV, AXIS M4215-V, AXIS M4216-LV, AXIS M4216-V, AXIS M4218-LV and AXIS M4218-V

- Improved day/night switching stability.

    Applies to: AXIS P3735-PLE, AXIS P3737-PLE, AXIS P3738-PLE, AXIS P4705-PLVE and AXIS P4707-PLVE

- Migrated HDMI/SDI page from ACA to ADA. It is now possible to see which connection is active.

    Applies to: AXIS V5925 and AXIS V5938

- Enabled two-way audio with echo cancellation. In the case of having internal microphone and echo cancellation enabled before upgrading, the input gain will be reset to 0 as the new solution includes automatic gain control.

    Applies to: AXIS C1210-E

- Lowered latency to enable faster audio playback on stand-alone speakers that are not used in AXIS audio manager systems.

    Applies to: AXIS C1110-E, AXIS C1111-E, AXIS C1310-E, AXIS C1410, AXIS C1610-VE, AXIS C8110 and AXIS C8210

- AXIS Audio Manager Edge: Added the possibility to have an RTP stream as paging source.

    Applies to: AXIS C1110-E, AXIS C1111-E, AXIS C1310-E, AXIS C1410, AXIS C1610-VE, AXIS C8110 and AXIS C8210

- Performed minor fusion improvements.

    Applies to: AXIS Q1656-DLE

- Beta page: added the possibility for having editable map calibration in ADA. Beta page has ability to zoom the radar image.

    Applies to: AXIS D2110-VE, AXIS D2210-VE and AXIS Q1656-DLE

- Added option to allow objects to be passed through exclude zones.

    Applies to: AXIS D2110-VE, AXIS D2210-VE and AXIS Q1656-DLE

- Early Fire Detection: Improved logic for better filtering of moving objects by a new overlay indicating the point of interest when an alarm is triggered.

    Applies to: AXIS Q1961-TE/-XTE and AXIS Q2101-TE

- Added the possibility to add thermal related data sources when setting up widgets in the web interface.

    Applies to: AXIS Q1961-TE/-XTE and AXIS Q2101-TE

AXIS OS 11.10.64

Release date: 2024-04-25

Corrections

- General improvements in the Elevator door state detector ACAP.

    Applies to: AXIS P9117-PV

AXIS OS 11.10.61

Release date: 2024-04-23

New products

- AXIS P1385/-B

- AXIS P1387/-B

- AXIS P1388/-B

- AXIS P9117-PV

Corrections

- Corrected an issue with Video Motion Detection regarding log prints.

- Corrected an issue with the time input component for "set export range".

- Corrected an issue where emails sent by the device were missing message-id http header.

- Corrected an issue where Client Stream Data showed wrong FPS as viewer.

  Limitation: FPS restriction is removed when adaptive stream is enabled for viewers.

- Corrected an issue with masking in *Ambarella CV25 on page 80* cameras when requesting a JPEG image.

- Corrected an issue in AXIS Motion Guard regarding log prints.

  Applies to: All products with *AXIS Motion Guard support*

- Corrected an issue in AXIS Fence Guard regarding log prints.

  Applies to: All products with *AXIS Fence Guard support*

- Corrected an issue with AXIS Loitering Guard regarding log prints.

  Applies to: All products with *AXIS Loitering Guard support*

- Extended the number of preset positions for the built-in Pelco driver from 32 to 100. Additionally, introduced a new config option in plain configuration (UserAdv parameter).

  Applies to: All products with Pelco driver support

- Corrected an issue where the time and date in Edge were different from the device settings which led to announcements being triggered at wrong times.

  Applies to: AXIS C1310-E

- Corrected an issue where network paired radar did not remove object inside exclude zone.

  Applies to: AXIS P1465-LE-3 and AXIS P3265-LVE-3

- Corrected an issue where the stream stopped when selecting certain regions in ALPV under settings.

  Applies to: AXIS P1445-LE-3, AXIS P1455-LE-3, AXIS P1465-LE-3, AXIS P3245-LE-3 and AXIS P3265-LE-3

- Corrected an issue where front LED not turning off.

  Applies to: AXIS A8207-VE-MKII

- Corrected an issue where call button, keypad and reader became unresponsive.

 Applies to: AXIS A8207-VE, AXIS A8207-VE Mk II and AXIS I8016-LVE

AXIS OS 11.9

Release date: 2024-02-26 – 2024-03-21

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Features for all products

- Added language as URL option. By adding "?language" to the URL, you are able to open the new web interface with different languages. Example: http://DeviceIP/?language=sv-SE

- Added the possibility in the installation page to configure individual channels when group view is selected.

- Improved behavior of the video pre-buffer when using multiple streams, so frames per seconds are more evenly distributed.

- Improved reaction time for overlays such as FPS and bit rate.

- Provided the ability to configure the host-based Firewall to the web-interface.
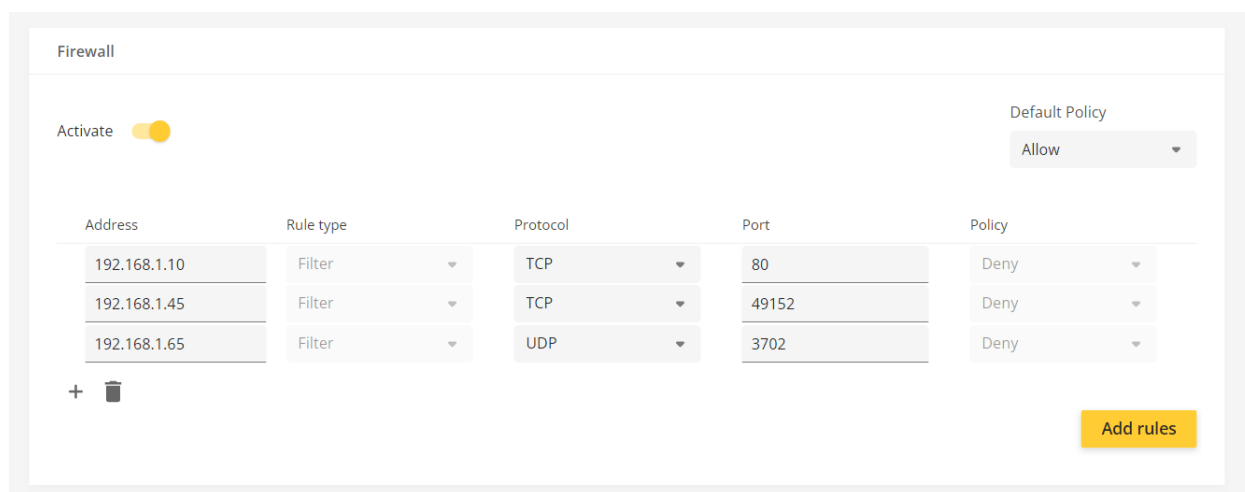
- AXIS Audio Manager Edge: Added the possibility to add both single events and intervals in one schedule, for both Advertisements and Announcements schedules.

- API updates

    - Updated user-management API. In version 1.2, it is possible to retrieve information from the device if it supports admin users named anything else than "root".

    - Added a new VAPIX REST API to be able to write a custom message into the system log of the device.

Cybersecurity updates

- Addressed CVE-2024-0054. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2024-0055. For more information, please visit the *Axis vulnerability management portal*.

- Updated *cURL to version 8.5.0* to increase overall cybersecurity level.

- Updated OpenSSH to version 9.6p1 to increase overall cybersecurity level.

- Trusted Execution Environment (TEE)

    Applies to: Products on *AXIS ARTPEC-8 on page 79*, *Ambarella CV25 on page 80*, *Ambarella S6L on page 80* and *I.MX 6SX on page 80*

    - The Trusted Execution Environment (TEE) is selectable as a secure keystore, providing higher performance and lower latency compared to the high-security and certified TPM 2.0 and Secure Element. More information and guidance can be found *here*.

    - Added a new certificate option in the web interface to be able to select Secure keystore = Trusted Execution Environment (SoC TEE).

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Analytics updates

- Improved object detection and added support for new object classes; HumanFace, LicensePlate, and vehicle sub-classes Bus, Car and Truck. These classes have been added to the RTSP video analytics metadata stream. More information is provided *here*.
  <u>Applies to:</u> AXIS P3727-PLE

  To see which classes are supported on your device, use getSupportedMetadata which is documented in the The *Analytics Metadata Producer Configuration API*. More information is provided in the *AXIS Developer Community* and the *AXIS OS Knowledge base*.

- AXIS Object Analytics:

  - Added "Time in Area" scenario for panoramic camera and multi directional camera.

  - Presented motion setting as two separate scenarios: "Motion in area" and "Motion line crossing".

  - Increased max number of vertices from 10 to 20 for include areas.

  - Improved handling of animal false alarms.

  - Added the possibility to reuse include and exclude area from previous scenarios.

  - Improved detection algorithm for *AXIS ARTPEC-7 on page 79* products.

  - Updated detection model for 360° products to ensure faster and more confident detections, especially in the periphery.

  - Improved vehicle tracking on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80* products.

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, visit the *AXIS Object Analytics*.

Software Bill Of Materials (SBOM) updates

Added:

- AXIS Fence Guard

- AXIS Motion Guard

- AXIS Loitering Guard

- Video Motion Detection (VMD)

- AXIS Object Analytics

Product specific features

- Enabled Radar and Camera Autocalibration for automatically learning scene elevation.
  <u>Applies to:</u> AXIS Q1656-DLE

- Added support for Network radar pairing (Edge-to-edge technology). The radar view will use the second view area to show the radar view when pairing is enabled.
  <u>Applies to:</u> AXIS P1465-LE-3 and AXIS P3265-LVE-3

- Beta version: New filter to decrease false alarms from ventilation systems, fans or other stationary rotating objects.
  <u>Applies to:</u> AXIS D2110-VE

- Added SIP support.
  <u>Applies to:</u> AXIS M3085-V, AXIS M3086-V and AXIS M3088-V

- Moved the button that toggles Echo cancellation on/off in the web interface to Audio > Device settings.
  <u>Applies to:</u> AXIS A8207-VE, AXIS A8207-VE Mk II, AXIS C1310-E, AXIS C1410, AXIS C1610-VE, AXIS C8110, AXIS C8210 and AXIS I8016-LVE

- Added "Traffic camera installation assistance" to the web interface.
  <u>Applies to:</u> AXIS Q1656/-B/-BE/-BLE/-DLE/-LE

- Improved Video Motion Detection (VMD) accuracy.
  <u>Applies to:</u> AXIS P3727-PLE

- Improved robustness of radar-video fusion analytics in shaky conditions, for example in strong wind.
  <u>Applies to:</u> AXIS Q1656-DLE

- Improved focus when fully zoomed in.
  <u>Applies to:</u> AXIS Q6225-LE

AXIS OS 11.9.72

Release date: 2024-03-21

New products

- AXIS Q1805-LE

- AXIS Q1806-LE

Corrections

- Corrected an issue with audio noise that could potentially be experienced on some units.
  <u>Applies to:</u> AXIS Q1805-LE and AXIS Q1806-LE

AXIS OS 11.9.71

Release date: 2024-03-20

New products

- AXIS D2210-VE

Corrections

- Corrected an issue causing zoom to stop working.
  <u>Applies to:</u> AXIS P5676-LE

- Corrected an issue causing objects to be tracked inside exclude zones.
  <u>Applies to:</u> AXIS D2110-VE, AXIS D2210-VE and AXIS Q1656-DLE

- Corrected an issue causing SmokeAlert to stop working.
  <u>Applies to:</u> AXIS P1468-XLE, AXIS XFQ1656 and AXIS XPQ1785

AXIS OS 11.9.67

Release date: 2024-03-11

Corrections

- Improved audio quality on SIP calls.
  <u>Applies to:</u> All products with SIP support.

- Improved system stability.
  <u>Applies to:</u> AXIS A8207-VE and AXIS A8207-VE Mk II

- Products with Hardware ID 9F2 only supports active track 11.9. and later. The hardware ID can be found in Plain config > Properties > System > Hardware ID. Read more about hardware changes in *AXIS OS Knowledge base*.
  <u>Applies to:</u> AXIS S3016

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AXIS OS 11.9.63

Release date: 2024-03-04 –2024-03-06

New products

- AXIS C1110-E

- AXIS C1111-E

Corrections

- General improvements to the platform.

Limitations

- Lowered the current to 50 mA on the blue LED on certain speaker products. This is done to extend life expectancy of the blue LED.
  Applies to: AXIS C1110-E, AXIS C1111-E, AXIS C1410 and AXIS C1610-VE

AXIS OS 11.9.60

Release date: 2024-02-26 – 2024-03-06

New products

- AXIS M3086-V Mic

- AXIS P3267-LVE Mic

- AXIS Q1961-XTE

- AXIS Q9307-LV

Corrections

- Corrected an issue where night mode was not switched off in some cases, when gain and exposure time was changed.
  Applies to: AXIS P1465-LE

- Corrected an issue with editing privacy masks, where the web interface was not responding correctly in some rare cases.

- Corrected an issue that made parameters inaccessible, when upgrading an ACAP application from a version using "root" user to a version with dynamic user.

- Corrected an issue with action rules, where the name of the preset was not added to the file name when exporting the image to FTP.

- Prevented ACAP application parameters from being read by a viewer account or by applications with a different primary group.

- Corrected an issue where the camera did not return to the start position after being physically forced to pan.

- Corrected an issue where the MQTT event rule stopped working after some time.

- Corrected an issue where parameters were not fetched correctly after an ACAP application upgrade.

- Corrected an issue where # in network sharing passwords was not supported.

- Corrected an issue where ACAPs that acquires VAPIX credentials via D-Bus API was not working correctly.

Limitations

- **ACAP Computer Vision SDK delay**
  In AXIS OS 11.9, ACAP Computer Vision SDK applications built with ACAP Computer Vision SDK 1.12 or earlier that have a direct or indirect dependency on the library libvdostream.so, as instructed in various *acap-computer-vision-sdk-examples*,

will encounter a runtime error. This occurs despite their successful execution on AXIS OS 11.8 and earlier versions. An update of such applications will be necessary to be compatible with 11.9 and future versions.

An updated ACAP Computer Vision SDK is currently under development, more information will come.

- Corrected an issue with editing privacy masks, where the web interface was not responding correctly in some rare cases.

- *Old web interface* was removed due to limited flash memory space. *The new web interface* will be displayed after upgrade. Applies to: AXIS Q1659

AXIS OS 11.8

Release date: 2024-01-08 – 2024-02-05

Features for all products

- Added support for EventBroker MQTT capability in ONVIF profile M.

- Added the possibility to configure a proxy when setting up MQTT client in the web interface.

- Added support for DHCP option 121. Read more about the different options at HPE Aruba's *techhub*.

- Added automatic time zone configuration through DHCPv4 option 100/101 and DHCPv6 option 40/41. Manual timezone configuration will override the DHCP time zone configuration.

- Added support for listing and removing already uploaded custom-firmware certificates (CFC) in the security section in addition to just uploading CFCs.

- Moved configurations from the paging zone to the paging source in the AXIS Audio Manager Edge.

- Added support in ACAP SDK for accessibility of static HTML files for operators and viewers, in the new manifest schema.

- Added support for Reverse Proxy configuration in the ACAP manifest/installation framework.

- Added the possibility for ACAPs using the axaudio lib to be able to get raw (pcm) audio streams even if the input is disabled.

- Added information in the old web interface about its discontinuation after 2024 LTS.

- Added support for host-based firewall to improve network security. Not applicable for AXIS S30 series.

- The legacy "IP-Filtering"-service is deprecated and will be removed after AXIS OS 2024 LTS.

- API updates

  - Added a new Log API via the device config framework. A way to see if a device supports Log API is by running http://{device}/config/discover/apis/log/v1.

  - Added a new VAPIX REST API for saving/clearing all severity logs in one single persistent file.

Cybersecurity updates

- Addressed CVE-2023-5800. For more information, please visit the *Axis vulnerability management portal*.

- Added support for IEEE 802.1AE MAC Security (MACsec) with Static CAK/Pre-Shared Key (PSK) and Dynamic CAK/EAP-TLS. Dynamic CAK/EAP-TLS is enabled by default.
MACsec can be configured from the security tab in the web-interface and allows for complete layer-2 network encryption between the Axis device and network switch. Read more in the *AXIS OS Knowledge base*.

- Disabled the root-privileged access through the SSH-interface in the factory defaulted state. To allow root-privileged access through SSH. it must be enabled in Settings > Accounts > SSH accounts. Upgrade without factory default will not affect the setting. For more information see *AXIS OS root ACAP signing* in Developer community and *Changes in AXIS OS 11* in AXIS OS portal.

- Disabled the root-privilege installation of ACAPs in the factory defaulted state. To allow the installation of root-privilege ACAPs, it must be enabled in Settings > Apps > Allow root-privileges apps. Upgrade without factory default will not affect the setting. For more information see *AXIS OS root ACAP signing* in Developer community and *Changes in AXIS OS 11* in AXIS OS portal.

- Added support for host-based firewall to improve network security. The legacy "IP-Filtering"-service is deprecated and will be removed after AXIS OS 2024 LTS.

Analytics updates

- AXIS License Plate Verfier updated to 2.9.19. Read more what's included *here*.

  - Added Diplomatic license templates for Switzerland.

  - Added to the metadata streaming when using ALPV.AllPlates the license plate crop as base64 format.

  - Added new data sets to the license plate detected, vehicle type and colour (tagged as beta).

Product specific features

- Moved information in the device configuration web from the Audio/Overview page to Status page and crated a new page for AXIS Audio Manager Edge.
  Applies to: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110 and AXIS C8210

- Corrected an issue where some web streams with OGG/VORBIS had periods of silence.
  Applies to: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110 and AXIS C8210

- Corrected an issue where some web streams with OGG/VORBIS had periods of silenceAdded support for digital input to be used with AXIS T8355 Digital Microphone.
  Applies to: AXIS C8110

- Improve the classifier.
  Applies to: AXIS D2110-VE

- Enabled reclassifications to improve the accuracy of the classifications.
  Applies to: AXIS D2110-VE and AXIS Q1656-DLE

- Axis Sensor Metrics Dashboard is pre-installed.
  Applies to: AXIS F9111, AXIS F9114 and AXIS F9114-B

- Added support for WLAN country code.
  Applies to: AXIS M1075-L

- Added the possibility to configure scene annotations in the new web interface.
  Applies to: AXIS M5000-G and AXIS M5075-G

- Enabled the new web interface by default. The former web interface is still available as a fallback.
  Applies to: AXIS M5000, AXIS M5000-G and AXIS M5075-G

- Added the possibility to manually set the white balance.
  Applies to: Products based on *Ambarella CV25 on page 80*

- Added MQTT Graph overlays.
  Applies to: Products based on *AXIS ARTPEC-8 on page 79* except AXIS P3827-PVE, AXIS M4317-PLR, AXIS M4317-PLVE, AXIS M4318-PLR, AXIS M4318-PLVE, AXIS M4327-P and AXIS M4328-P

- Added support for AXIS T6101 Mk II to get features such as I/O to Axis cameras, two-way audio, one stream for audio and video, Voice Enhancer, etc.
  Applies to: AXIS P3245-LV/-LVE/-V/-VE, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE and AXIS Q6225-LE

- Added support for containers via ACAP SDK. The purpose of embedded containers is to provide a standardized and portable runtime environment for applications running on embedded systems, enabling faster and more efficient development and deployment of software. For more information visit *Axis github*.
  Applies to: AXIS P4705-PLVE and AXIS P4707-PLVE

- Improved radar-video fusion for traffic.
  Applies to: AXIS Q1656-DLE

- Added a new VAPIX REST API to thermography-cgi.
  Applies to: AXIS Q1951-E, AXIS Q1952-E, AXIS Q1961-TE and AXIS Q8752-E

- Added support for RAID 6 RAID level.
  Applies to: AXIS S3016

- Added support for power demotion, to handle products with higher POE classes than supported.
  Applies to: AXIS S3008, AXIS S3008 Mk II and AXIS S3016

AXIS OS 11.8.74

Release date: 2024-01-31 – 2024-02-05

New products

- AXIS M5526-E

Limitations

- AXIS Audio Manager Edge requires AXIS OS version 11.8.74 or higher, alternatively LTS 2022 10.12.221.1 or higher, on all devices in the site. Other combinations of higher and lower AXIS OS versions will result in sound playing out of sync.
  Applies to: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110 and AXIS C8210

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Corrections

- Corrected a web interface issue where the SIP account was not displayed correctly on the DTMF page.
  Applies to: AXIS A8207-VE/Mk II, AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110, AXIS C8210, AXIS I8016-LVE and AXIS I8116-E

- Corrected an issue where some web streams with OGG/VORBIS had periods of silence
  Applies to: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110 and AXIS C8210

- Corrected an issue where credentials was unnecessary requested by AXIS License Plate Verfier after upgrade.
  Applies to: AXIS P1445-LE-3, AXIS P1455-LE-3, AXIS P1465-LE-3, AXIS P3245-LVE-3 and AXIS P3265-LVE-3

- Corrected an issue for user access right when using manifest.json and requiring specific HTML file access for different users.
  Applies to: AXIS P1445-LE-3, AXIS P1455-LE-3, AXIS P1465-LE-3, AXIS P3245-LVE-3 and AXIS P3265-LVE-3

AXIS OS 11.8.61

Release date: 2024-01-08

New products

- AXIS S3008 Mk II

- AXIS S3016

Corrections

- Corrected an issue where bottom part of bounding boxes in motion guard were missing in the RTSP stream.

- Corrected an issue where it was not possible to add license if the ACAP uses semantic versioning.

- Corrected an issue with control queue time not working correctly.

- Corrected an issue with overlay not shown correctly in snapshots.

- Corrected an issue where overlays were missing in snapshots.

- Corrected an issue with MQTT overlay.

- Corrected an issue where TCP notification messages would spam if the message was empty.

- Corrected an issue with AXIS License Plate Verifier application, since there is no dedicated root user in factory defaulted state.

- Corrected an issue with Night mode not possible to activate when WDR was disabled.
  Applies to: AXIS M1055-L, AXIS M1075-L, AXIS M3085-V, AXISM3086-Vand AXIS M3088-V

- Corrected an issue causing slight waves/vibrations in the image.
  Applies to: AXIS Q6225-LE

- Corrected an issue with audio sources when using AXIS T6101.
  Applies to: AXIS P3255-LVE

- Improved system stability.
  Applies to: AXIS P3265-LV

AXIS OS 11.7

Release date: 2023-11-13 – 2023-11-23

Features for all products

- Added support for configuring OAuth 2.0 RFC6749 OpenID Authorisation Code Flow in the account section of the web interface. For more information, visit the *Axis Device Configuration*.

- Added a new parameter "bootid" to Systemready.cgi to help determine if the devices have been restarted.

- Added support for creating ECC key pairs and certificates, in the web interface.

- Added Zipstream storage profile support for edge storage. Note that it is not applicable for AXIS S3008.

- Improved DTMF functionality and usability.

  - Added more flexibility to configure DTMF via the web interface, by allowing multiple SIP accounts to trigger a DTMF event and seamlessly create multiple DTMF events.

  - Moved the DTMF configuration from the SIP account settings to a separate configuration tab that collects and displays all DTMF settings.

- Added support for selecting manually 1000 Mbit/s duplex or half-duplex speeds in the web-interface for troubleshooting purposes. Note that this selection is only available for products that support this network speed.

Cybersecurity updates

- Updated *Apache to version 2.4.58* to increase overall cybersecurity level.

- Updated *cURL to version 8.4.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1w to increase overall cybersecurity level.

- Updated *OpenSSL to version 3.0.12* to increase overall cybersecurity level.

- Addressed CVE-2023-21416. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-21417. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-21418. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-5553. Note that downgrading the product to an older AXIS OS version other than the latest supported 10.12 LTS track release is not possible. For more information, please visit the *Axis vulnerability management portal*.
  Applies to: Products based on *AXIS ARTPEC-8 on page 79*

Analytics updates

- The bounding box associated to the human face class is now extended to the head.
  Applies to: Products based on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80* that support metadata

- Improved tracking of humans in situations where frequent object overlapping and occlusions can occur.
  Applies to: Products based on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80* that support metadata

- AXIS Object Analytics:

  - Removed beta tag for Occupancy in area and Crossline Counting.

  - Added CSV export function for Occupancy in area and Crossline Counting.

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, visit the *AXIS Object Analytics*.

Product specific features

- Added support for road monitoring profile.
  Applies to: AXIS Q1656-DLE

- Added a beta version of small filter, to reduce false alarms from animals and small objects.
  Applies to: AXIS D2110-VE

- Added the ability to do PTZ pairing and radar autotracking, in the new web interface.
  Applies to: AXIS D2110-VE and AXIS Q1656-DLE

- Added the possibility to configure pencil filter in plain config. Settings > Plain Config > Search for "pencil".
  Applies to: AXIS Q1656 and AXIS Q1656-B

- Added support for T6101 Mk II to get features such as I/O to Axis cameras, two-way audio, one stream for audio and video, Voice Enhancer, etc.
  Applies to: AXIS Q6315-LE, AXIS P3807-PVE, AXIS P3715-PLVE, AXIS Q6215-LE and AXIS P3717-PLE

- Added missing sensors to vipd-sensor-conf for F91-series modular cameras.
  Applies to: AXIS F9104, AXIS F9111 and AXIS F9114

- Added support for both 16:9 and 4:3 aspect ratios, in AXIS Live Privacy Shield.
  Applies to: Products based on *AXIS ARTPEC-8 on page 79*

AXIS OS 11.7.65

Release date: 2023–11–28

Corrections

- Corrected an issue with false alarms in AXIS Object Analytics.
  Applies to: AXIS Q1656-DLE

AXIS OS 11.7.61

Release date: 2023–11–21

New products

- AXIS P3268-SLVE

- AXIS P3735-PLE

- AXIS P3737-PLE

- AXIS P3738-PLE

Cybersecurity updates

- Updated *Apache to version 2.4.58* to increase overall cybersecurity level.

Corrections

- Corrected an issue where event rules using pulse schedules, stopped working after network interruption.

- Corrected an issue where sending email without subject or message, was not possible.

- Corrected an issue where FTP upload event stopped working.

AXIS OS 11.7.57

Release date: 2023–11–13

Corrections

- Corrected an issue with events related to DTMF.

- Corrected an issue where network share recipient hostname with '-' character, was not working correctly.

- Corrected an issue with LED stripe.
  Applies to: AXIS A8207-VE and AXIS A8207-VE Mk II

- Corrected an issue where day-night mode was missing in Event rules
  Applies to: AXIS M1135/-E Mk II, AXIS M1137/-E Mk II, AXIS M3085-V, AXISM3086-Vand AXIS M3088-V and AXIS M5075-G

- Corrected an issue for user access right when using *manifest.json* and requiring specific HTML file access for different users.
  Applies to: AXIS P1445-LE-3, AXIS P1455-LE-3, AXIS P1465-LE-3, AXIS P3245-LVE-3 and AXIS P3265-LVE-3

- Corrected an issue that made the group view non retrievable when using the rotation option when fetching a stream.
  Applies to: AXIS P3727-PLE, AXIS P4705-PLVE and AXIS P4707-PLVE

- Corrected an issue where "Thermographic analysis is not ready yet" was not shown after restart.
  Applies to: AXIS Q2101-TE

- Corrected an issue with multicast that caused similar but different stream to be interpreted as the same.
 Applies to: AXIS Q6010-E

AXIS OS 11.6

Release date: 2023-09-18 – 2023-10-02

Features for all products

- Changed behavior of the pre-buffer to be prioritized over the frames per second (FPS). The device might lower the configured FPS dynamically to achieve the set pre-buffer.

- A new VAPIX REST API for certificate management has been added. For more information, please visit the *VAPIX Library*.

  - Improved certificate signing request (CSR) installation flow.

  - Added the possibility for CSR-generation of ECC-cryptography..

  - Added the possibility for CSR-generation of RSA-cryptography higher than 2048-bit.

  - Added the possibility to select Secure Keystore (TPM, Secure Element).

  - Added the possibility to add subject alternative name (SAN).

- Added support for OAuth 2.0/OpenID Connect that provides centralized Identity Access Management (IAM) through active directory federated services (ADFS) and identity provider (IDP) solutions. For more information please visit the *OAuth 2.0 OpenID Connect* in AXIS OS Portal.

- Updated the terminology of "user accounts" in the web interface and renamed to "Accounts" to align with IT-industry standard terminology. Web interface URL changed from /index.html#/system/users to /index.html#/system/accounts.

- Added the possibility for feature flag toggling of restrictRootAccess. Detailed information is provided *here*.

- Added support for more than seven identical streams. The maximum identical streams is equal to the MaxViewers parameter value.

- Changed name of Date & Time to Time & Location, after adding geolocation. Web interface URL changed from /index.html#/system/dateTime to /index.html#/system/timeLocation.

- Added the possibility to set geolocation, via **System > Time and Location**.
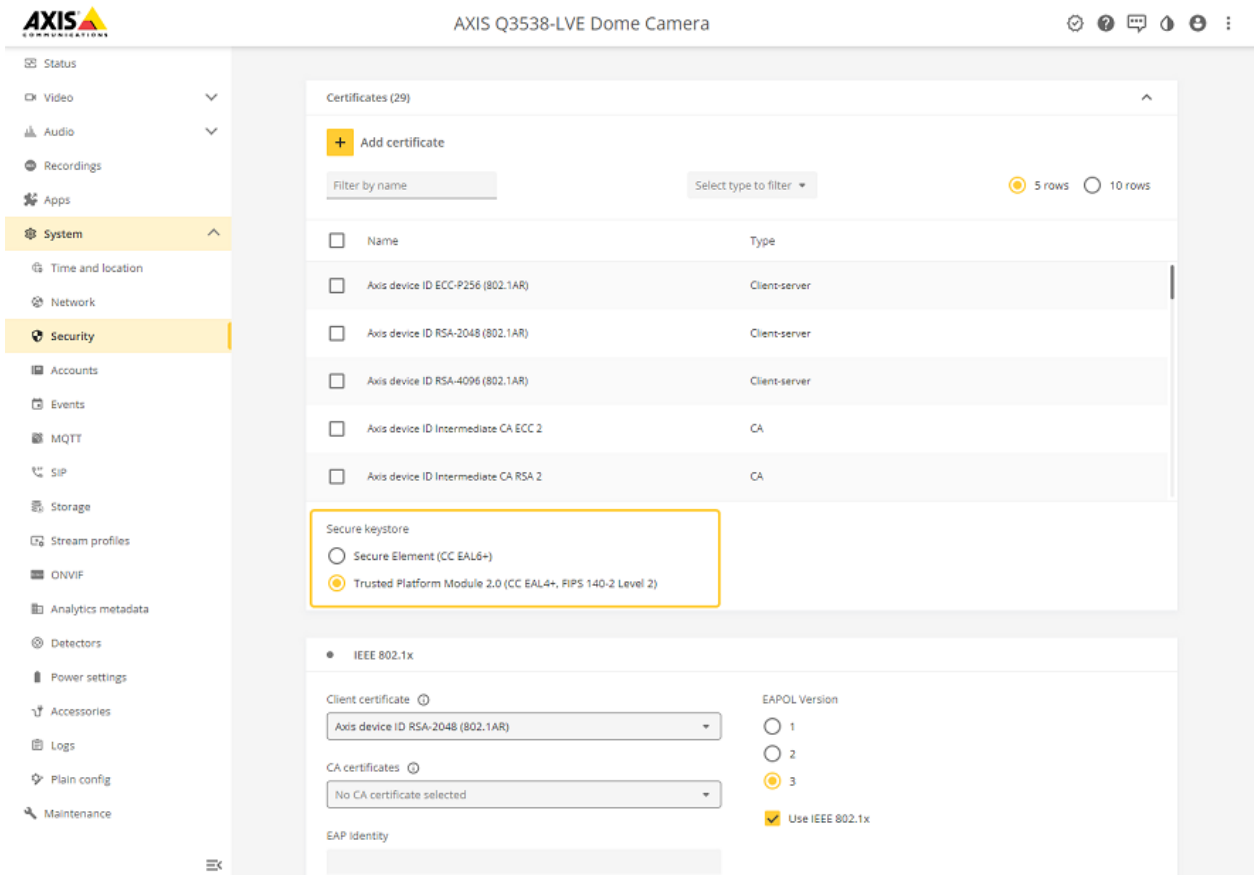
AXIS OS Release Notes

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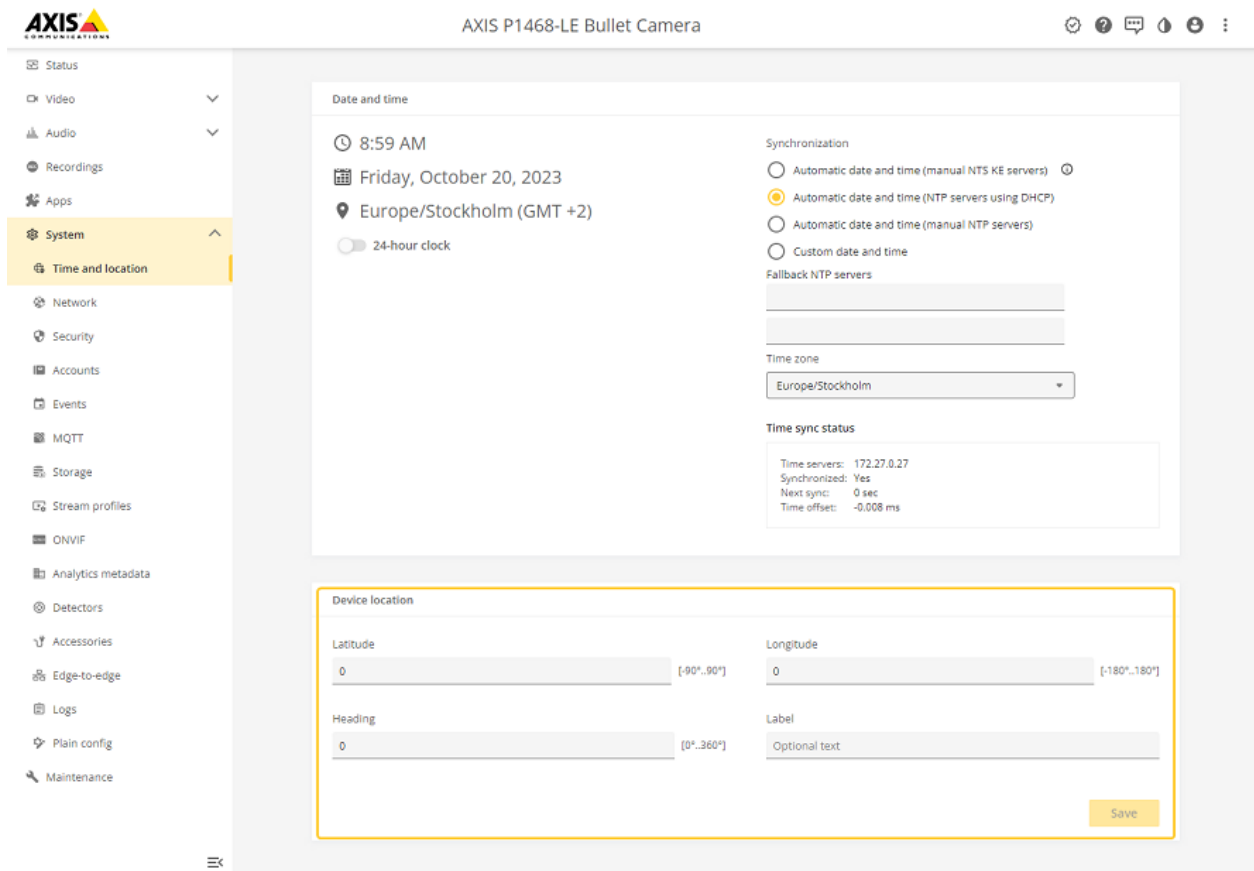
- Added support for ACAPs to get VAPIX access without storing local credentials. Please go to the *ACAP Developer Guide* for more information.

- Added the possibility to select the default Secure Keystore prior to uploading private keys in the security tab in the web interface.

- Possible to create custom named initial VAPIX user instead of "root".

- Added new proprietary "Axis" format to the Remote Syslog Format.

- Improved SNMP Monitoring by adding support for the ipAddressTable OID.

- Added an HTTP proxy setting to the MQTT client configuration.

Cybersecurity updates

- Updated *cURL to version 8.2.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1v to increase overall cybersecurity level.

- Added platform support for *OpenSSL 3.0*, starting with version 3.0.10 to increase overall cybersecurity level. OpenSSL 1.1.1 on the AXIS OS Active track is now deprecated and will be removed in AXIS OS 12 during Q3 2024. Please visit the *Open Source Library Support* for more information.

- Updated TPM (Trusted Platform Module) to version 4.0.0 to increase overall cybersecurity.
  <u>Applies to</u>: All products with Secure Keystore support.

- Added support for EAP-PEAP/MSCHAPv2 in IEEE 802.1X network access control authentication.

- Addressed CVE-2023-21413. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-21414. Note that downgrading the product to an older AXIS OS version other than the latest supported 10.12 LTS track release is not possible except for Q3527-LVE that has support for 9.80 LTS. For more information, please visit the *Axis vulnerability management portal*.
  <u>Applies to</u>: AXIS A8207-VE Mk II, AXIS Q3527-LVE and all products based on *AXIS ARTPEC-8 on page 79*

- Addressed CVE-2023-21415. For more information, please visit the *Axis vulnerability management portal*.

Analytics updates

- AXIS Object Analytics:

  Applies to: Products based on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80*

  - Improved the alarm logic when objects leave the "include" area.

  - Added an occupancy threshold feature to the alarm logic that triggers actions based on the desired amount of objects in the area of interest.

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, visit the *AXIS Object Analytics*.

Product specific features

- Added option to inverted byte order for secure card data.
  Removed the possibility to submit PIN only in Configuration check, workaround for sending PIN only is to send the PIN and then press the # on the product image.
  Applies to: AXIS A8207-VE and AXIS A8207-VE Mk II

- Removed the "Make calls in the video management system (VMS)" toggle and VMS recipient can now be created and added under recipients. When upgrading from previous firmware the VMS toggle will be converted and shown under "Recipients from call information" VMS call will behave the same way as before the upgrade.
  Applies to: AXIS A8207-VE , AXIS A8207-VE Mk II and AXIS I8016-LVE

- Added the possibility to add multiple sources to a scheduled event when scheduling music in AXIS Audio Manager Edge.
  Applies to: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110 and AXIS C8210

- Added possibility to use the front LED via Siren & Light service, configurable via ADA Light menu and with added pre-installed action rules for turning on green LED when microphone is active (feature seen in other speakers with front LED).
  Applies to: AXIS C1310-E

- Improved dewarp of the custom view.
  Custom view is renamed "Custom view (4:3)" and optimized for 4:3 ratio with the new improved dewarping.
  A new Custom view named "Custom view (16:9)" is added optimized for 16:9 ratio with new improved dewarping.
  Applies to: AXIS I8016-LVE

- Added the possibility to create pencil video filters, in the web interface and via VAPIX.
  Applies to: AXIS M1055-L and AXIS M1075-L

- Added the possibility to improve latency for single stream by using video codec H.264 and no Zipstream.
  Applies to: AXIS M3905-R and AXIS P3905-R Mk III

- Added support for power settings.
  Applies to: AXIS P1375-E, AXIS P1377-LE and AXIS P1378-LE

- Added ring-power 12V for microphone line in.
  Applies to: P3265-LV/-LVE/-V, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS P7304 and AXIS P7316

- Changed the new web interface to be enabled by default. The former web interface is still available as a fallback.
  Applies to: AXIS Q1700-LE, AXIS Q1715, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q8752-E and AXIS Q1798-LE

- Added support for PoE3.
  Added support for presets in web interface.
  Applies to: AXIS Q3626-VE and AXIS Q3628-VE

- Improved radar-video fusion of vehicles.
  Applies to: AXIS Q1656-DLE

- Added the possibility to be able to configure the radar line crossing scenario to require an object to cross two lines before triggering an event.
  Applies to: AXIS Q1656-DLE and AXIS D2110-VE

AXIS OS 11.6.105

Release date: 2023–10–30

Corrections

- Corrected an issue where the control queue and the user limit settings, were missing in the web interface.
  Applies to: All products with digital and mechanical PTZ support.

- Corrected an issue where connection between AXIS Q6100-E or AXIS Q6010-E and the attached PTZ was not possible.
  Applies to: All products supported by AXIS Q6100-E and AXIS Q6010-E.

AXIS OS 11.6.104

Release date: 2023–10–16

Corrections

- Improved system stability when connected to VMS.
  Applies to: AXIS M3077-PLVE

- Corrected an issue where pulling many multiple streams were not working correctly after upgrade to AXIS OS 11.5.
  Applies to: AXIS P3719-PLE

- Corrected an issue where the control queue and the user limit settings, were missing in the web interface.
  Applies to: AXIS Q8752-E

AXIS OS 11.6.94

Release date: 2023–09–28

New products

- AXIS D1110 Video Decoder 4K

Features

- Added support for T6101 Mk II to get features such as I/O to Axis cameras, two-way audio, one stream for audio and video, Voice Enhancer, etc.
  Applies to: AXIS P3265-LV/-LVE/-V, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE

Corrections

- Corrected an issue with streaming when using AXIS Companion mobile app and updating the audio parameter via the web interface.

- Corrected an issue where "Full recipient URL" displayed an incorrect URL in the web interface for action rules.

- Corrected an issue where mounting network share with "space" character in the name, was not working correctly.

- Resolved an issue with incorrect namespace prefixes in ONVIF XML Analytics Scene Description metadata.

- Corrected an issue with displaying frame rate with decimals.

- Solved an issue with images in the overlay, where an image with a transparent background was displayed completely transparent.
  Applies to: Products based on *Ambarella CV25 on page 80*

- Corrected an issue where PTZ movement was not working correctly, when using AXIS T8311.
  Applies to: All products with PTZ support

- Corrected an issue with invalid output.
  Corrected an issue with model output that was incorrect.
  Applies to: Products based on *AXIS ARTPEC-8 on page 79*

- Corrected an issue with IR LED intensity adjustment.
  Applies to: AXIS F9114 Main unit and AXIS F9114-B Main Unit

- AXIS Object Analytics: Corrected an issue regarding metadata overlay being drawn in incorrect resolution.
  Applies to: AXIS M1137/-E, AXIS P3727-PLE and AXIS Q3819-PVE

- Corrected an issue where the GetPreset ONVIF command was not working correctly.
  Applies to: AXIS M5000/-G

- Corrected an issue where low resolution could not be shown correctly in the AXIS Companion mobile app using Google Pixel 5.
  Applies to: AXIS P3719-PLE, AXIS Q6010-E, AXIS Q6100-E and AXIS Q9216-SLV

- Corrected the focal length limits when using a CS-mount lens with DC-iris.
  Applies to: AXIS Q1645/-LE, AXIS Q1647/-LE and ExCam XF Q1645

- Corrected an issue where manual focus was not working correctly via ONVIF command, if using third-party driver.
  Applies to: AXIS Q1656/-B

- Added small object filter to decrease false alarms from animals and small objects.
  Improved the radar track classifier.
  Improved fusion using radar and video classifications.
  Applies to: AXIS Q1656-DLE

- The minimum trigger duration time can be configured for each scenario individually. A short trigger duration time can be used for object counting, and a long trigger duration time can be used to throttle the frequency of triggers.
  Applies to: AXIS Q1656-DLE and AXIS D2110-VE

- Resolved an issue with warning in logs about too high temperature.
  Applies to: AXIS Q3536-LVE and AXIS Q3538-LVE

- Corrected an issue with Orientation Aid ACAP to be able to move the compass bar correctly via ONVIF commands.
  Applies to: AXIS Q6135-LE and AXIS Q6315-LE

- Corrected an issue where the overlay cut off lower part of the images.
  Applies to: AXIS Q6215-LE

- Corrected an issue where wiper was not possible to run through ONVIF command.
  Applies to: AXIS Q8615-E and AXIS Q8752-E

Limitations

- Export recording includes up to but excludes the stoptime parameter.

AXIS OS 11.5

Release date: 2023-06-12 – 2023-07-03

Features for all products

- Added detailed health information from SD cards to the server report, including power cycle statistics and flash wear rates. This improvement allows for a better monitoring of the system's health that can prevent downtime or data loss.

- Added the ability to hide the navigation sidebar and header by adding '?header=0&navigationsidebar=0' to the URL. For better integration when in embedded in applications.

- Overlay modification through parameter.cgi is now deprecated.

- Changed to using MP4 streaming in the web interface, which will give better support for iPad and streaming in Safari.

- Updated time zone database version to 2023c.

- Enhanced SNMP Monitoring: Resolved a missing TCP sub-tree OID issue in NET-SNMP by adding support for the SNMP TCP MIB object .1.3.6.1.2.1.6. This improvement ensures a smooth and uninterrupted SNMP monitoring experience.

- Improved UPnP compliance by updating the SSDP (Simple Service Discovery Protocol) SERVER header in the standard "OS/version UPnP/1.0 product/version" format. This enhances consistency and compatibility.

Cybersecurity updates

- Added a VAPIX parameter to allow/prevent the installation of root-privileges requiring ACAP applications. The parameter was added for testing purposes and can be adjusted from the Apps tab in the web-interface. For more information please read more at *Additional security in AXIS OS and ACAP applications* and *Upcoming breaking changes*.

- Added HTTP(S) Content-Security Policy and Referrer Policy header to increase overall minimum cybersecurity level. More information can be found at *Default HTTP(S) Headers*. The custom HTTP header VAPIX API can be used to configure HTTP headers. For more information, visit the *VAPIX library*.

- Added SSH User VAPIX API, which provides an interface to create, modify, and delete SSH users. SSH users can be configured via *VAPIX API* or using the web-interface user section. More information can be read here *SSH access*.

- Improved overall cybersecurity and system robustness by separating VAPIX users from AXIS OS system users. The initial user 'root' is now a standard administrator-privileged user account instead.

- Brute Force Delay Protection is now enabled by default. For more information, go to *Brute force delay protection*.

- Updated *Apache to version 2.4.57* to increase the overall cybersecurity level.

- Updated OpenSSL to version 1.1.1u to increase overall cybersecurity level.

- Addressed CVE-2023-21405. For more information, please visit the *Axis vulnerability management portal*.
  <u>Applies to</u>: AXIS A8207-VE and AXIS A8207-VE Mk II

Analytics updates

- AXIS Object Analytics:

  - Improved tracking of humans in situations where frequent object overlapping and occlusions can occur, leading to overall performance improvements for Time in area functionality.
    <u>Applies to</u>: Products based on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80*.

  - Added Occupancy in area (BETA) scenario which counts objects present within a defined area.
    <u>Applies to</u>: Products based on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80*.

  - Added new template system to assist with configuration of new scenarios.
    <u>Applies to</u>: Products based on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80*.

  - Limitations: Occupancy in area (BETA) data table in metadata overlay not available.
    <u>Applies to</u>: Products based on *Ambarella CV25 on page 80*.

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, see *AXIS Object Analytics*.

- Added support for human body clothing color in the AnalyticsSceneDescription metadata over ONVIF RTSP stream.
  Added support for upper/lower clothing color as an attribute to the human object class in the ONVIF RTSP stream.
  <u>Applies to</u>: Products based on *AXIS ARTPEC-8 on page 79* and *Ambarella CV25 on page 80* that supports metadata.

Product specific features

- Added support for T6101 Mk II to get features such as I/O to Axis cameras, two-way audio, one stream for audio and video, Voice Enhancer, etc.
  <u>Applies to</u>: AXIS M2035-LE, AXIS M2036-LE, AXIS M3067-P, AXIS M3068-P, AXIS M4317-PLR/-PLVE, AXIS M4318-PLR/-PLVE, AXIS P3727-PLE, AXIS P4705-PLVE, AXIS P4707-PLVE and AXIS Q6135-LE

- Added the ability to use custom ringtones, ringback tones and change their sound volumes.
  Added that the call button on the Configuration check page also will trigger the Events system.
  <u>Applies to</u>: AXIS A8207-VE, AXIS A8207-VE Mk II and AXIS I8016-LVE

- Added support for AXIS Live Privacy Shield.
  <u>Applies to</u>: AXIS M4216-LV/-V

- Objects' speed and distance are available in AXIS Object Analytics metadata overlay.
  Radar-video fusion algorithm takes light conditions into account for increased classification robustness.
  Improved radar video fusion performance in Axis Object Analytics when the optics are zoomed in.
  Improved image quality at low light conditions to resolved noise in the image that could occur in edges and corners.
  Enable radar-video fusion by default in analytics metadata stream.
  <u>Applies to</u>: AXIS Q1656-DLE,

- Improved low light performance by increased maximum gain from 51 dB to 57 dB.
  Improved image quality at low light conditions to resolved noise in the image that could occur in edges and corners when enabling Barrel distortion correction.
  <u>Applies to</u>: AXIS Q1656/-B/-BE/-BLE/-LE

- Added the possibility to see power consumption in PTZ cameras. Go to **System > Power Meter** to see or download current and average power usage, as well as maximum power peak.
  <u>Applies to</u>: AXIS P5676-LE, AXIS Q6135-LE, AXIS Q6215-LE, AXIS Q6225-LE, AXIS Q6315-LE and AXIS Q6318-LE
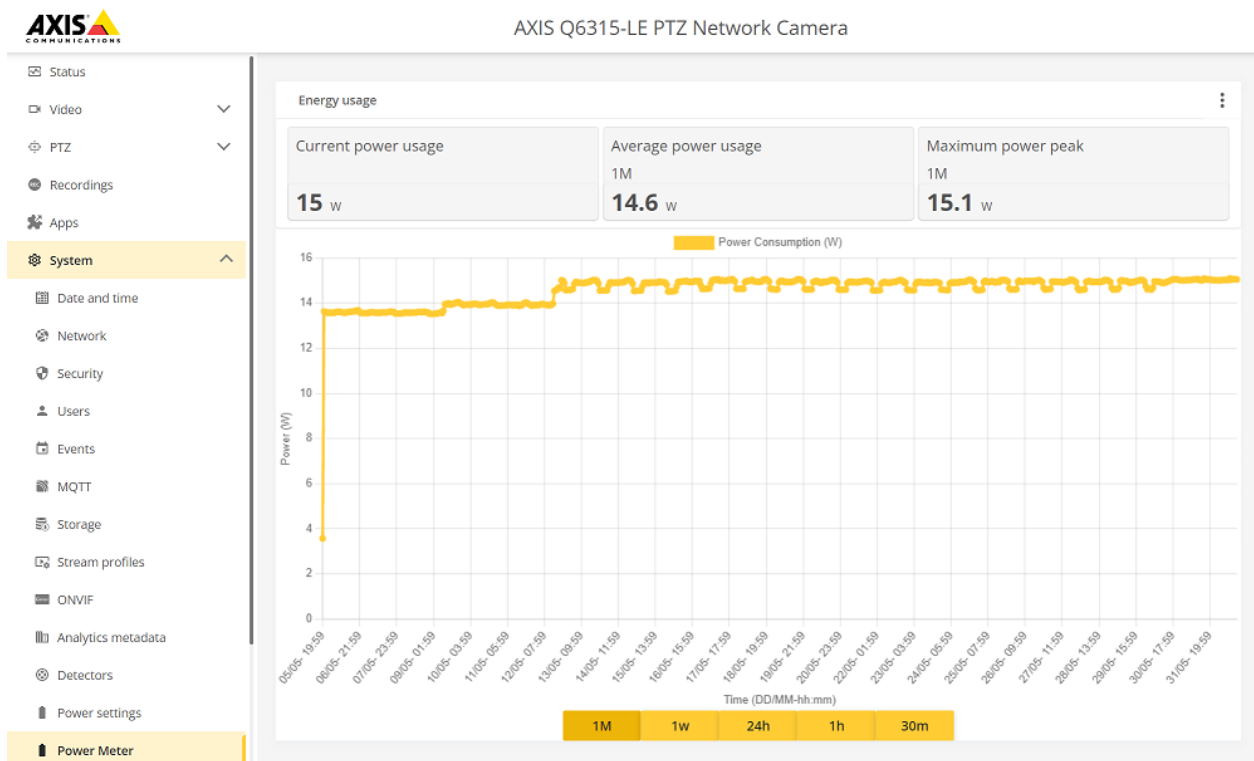
- Added support for Network speaker pairing (Edge-to-edge technology), enabling synchronization of audio playback. More information is found in *Edge-to-edge technology*
  <u>Applies to</u>: AXIS Q6225-LE

- Improved performance for the Orientation aid application.
  <u>Applies to</u>: AXIS Q6078-E and AXIS Q6318-LE

- Improved the ability to see security related statuses in the web interface.
  <u>Applies to</u>: AXIS S3008
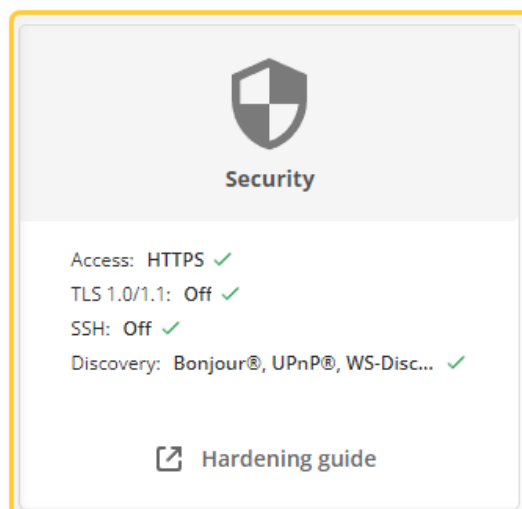
- Added support for containers via ACAP SDK. The purpose of embedded containers is to provide a standardized and portable runtime environment for applications running on embedded systems, enabling faster and more efficient development and deployment of software. For more information: *https://github.com/AxisCommunications/docker-acap*
  <u>Applies to</u>: AXIS S3008

AXIS OS 11.5.81

Release date: 2023–08–30

Corrections

- Corrected IR-functionality on sensor 3 and sensor 4.
  <u>Applies to</u>: AXIS Q6010-LVE and AXIS Q6100-E

AXIS OS 11.5.77

Release date: 2023–08–10

Corrections

- Corrected an issue that could bring the camera in an out of focus state. To activate the correction on the affected units, an additional restart is required after the upgrade.
  <u>Applies to</u>: AXIS Q3536-LVE, AXIS Q3538-LVE and AXIS Q3538-SLVE

AXIS OS 11.5.75

Release date: 2023–07–27

Features

- Updated the Beta version of Early Fire Detection.
  <u>Applies to</u>: AXIS Q1961-TE and AXIS Q2101-TE

Corrections

- Corrected an issue, which in combination with sound detection ACAPs, caused audio to fail.
  <u>Applies to</u>: AXIS M3077-PLVE, AXIS M4308-PLE, AXIS V5925 and AXIS V5938

AXIS OS 11.5.72

Release date: 2023–07–13

New products

- AXIS Q3626-VE

- AXIS Q3628-VE

AXIS OS 11.5.70

Release date: 2023–07–04

Corrections

- Added support for AXIS TU8003.
  <u>Applies to</u>: AXIS Q6225-LE

- Improved system stability.
  <u>Applies to</u>: AXIS Q1656-DLE

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Release date: 2023–06–19

New products

- AXIS I8116-E
- AXIS P3827-PVE
- AXIS M4317-PLVE
- AXIS M4318-PLVE
- AXIS P5654-E Mk II

Corrections

- Corrected a network sharing issue where connection via SMB1 and SMB2 was not possible.

- Corrected an issue where available scenarios are not displayed correctly in AXIS Object Analytics: Calibrate perspective.
  Applies to: AXIS P4705-PLVE and AXIS P4707-PLVE

- Corrected an issue in AXIS Object Analytics: Calibrate perspective, where the wrong camera's video stream was displayed.
  Applies to: AXIS P3727-PLE

AXIS OS 11.5.54

Release date: 2023–06–12

New products

- AXIS P1468-XLE
- AXIS Q2101-TE
- AXIS XFQ1656

Corrections

- Corrected an issue with OAK (owner authentication key). It now only produces warnings in the log instead of errors if the device is not able to connect to the internet.

- Corrected an issue in VDO Api, related to orientation when rotation has been changed.

- Corrected an issue where sequence ID modifiers #s and #S were not displaying the expected values.

- Corrected an issue with opening Edge over remote URL in AXIS Audio Manager Center.
  Applies to: AXIS C1410 and AXIS C8210

- Corrected an issue that could cause faulty speaker calibrations. When the calibrations is invalidated and the device will show as "Not calibrated" in the device configuration web. The device should then be calibrated.
  Applies to: AXIS C1310–E, AXIS C1410 and AXIS 1610–VE

- Corrected an issue with displaying incorrect bouncing boxes in AXIS Face Detector.
  Applies to: AXIS FA51/-B

- Corrected an issue where multicast was not working correctly for quad stream.
  Applies to: AXIS F9104-B, AXIS F9114/-B, AXIS FA54, AXIS M7104, AXIS M7116, AXIS P3717-PLE, AXIS P3719-PLE, AXIS P7304 and AXIS P7316

- Corrected an issue in the metadata sample fram for AnalyticsSceneDescription. The filed "VehicleInfo" was missing and the class type "bike" incorrectly part of the class info when it should be part of the VehicleInfo with the name "Bicycle".
  Applies to: AXIS M1135/-E Mk II, AXIS M1137/-E Mk II, AXIS P3727-PLE and AXIS Q3819-PVE

- Corrected an issue with manual heating control that was not working properly.
  <u>Applies to</u>: AXIS Q1951-E and AXIS Q1952-E

- Corrected an issue with autofocus not working correctly when zooming if WDR is enabled.
  <u>Applies to</u>: AXIS Q6318-LE

Limitations

- To be able to create action rules events for view areas, the option PTZ for the view area must be enabled.

- Automatic gain control doesn't work correctly together with Voice Enhancer in some environments.
  <u>Applies to</u>: AXIS M2035-LE, AXIS M2036-LE, AXIS M3067-P, AXIS M3068-P, AXIS M4317-PLR/-PLVE, AXIS M4318-PLR/-PLVE, AXIS P3727-PLE, AXIS P4705-PLVE, AXIS P4707-PLVE and AXIS Q6135-LE

AXIS OS 11.4

Release date: 2023-04-12 — 2023-04-24

Features for all products

- Added support for showing MQTT subscription data as text overlay. See below video for more information.

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

help.axis.com/?&piaId=00000&section=axis-os-11-4

- New Bonjour services have been implemented to simplify the discovery of the product. For more information, go to *AXIS Bonjour implementation*.

- Added support for low latency streaming of live video, with and without audio. Supported media codecs are H.264/H.265 and AAC and supported containers are mp4 and matroska.

- Added a link to AXIS OS Release notes portal in the device web interface.

Cybersecurity updates

- Updated *Apache to version 2.4.56* to increase the overall cybersecurity level.

- Updated *cURL to version 8.0.1* to increase overall cybersecurity level.

- Added a security card to the Status page in the new web interface showing the security-related device status.

AXIS OS 11
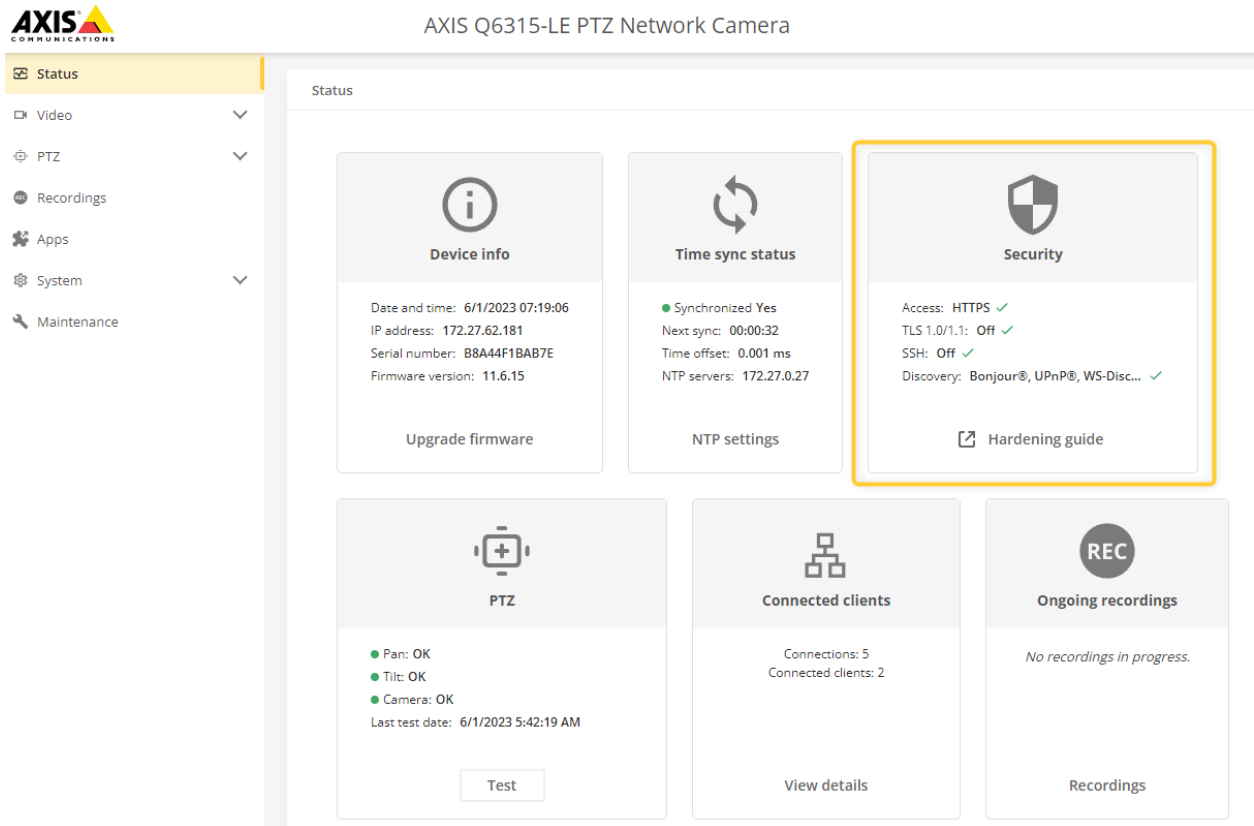
- Addressed CVE-2023-21404. For more information, please visit the *Axis vulnerability management portal*.

Analytics updates

- Updated AXIS License Plate Verifier to version 2.7.1.
  <u>Applies to</u>: AXIS P1445-LE-3, AXIS P1455-LE-3 and AXIS P3245-LVE-3

- Updated AXIS Object Analytics to version 1.7.25.
  <u>Applies to</u>: Products based on *AXIS ARTPEC-8 on page 79*, *AXIS ARTPEC-7 on page 79* and *Ambarella CV25 on page 80*
  Note that not all products support AXIS Object Analytics. For more information on compatible products and features, see *AXIS Object Analytics*

Product specific updates

- Added the possibility to create an unlimited number of radar scenarios and exclude zones.
  <u>Applies to</u>: AXIS D2110-VE and AXIS Q1656-DLE

- Added product specific onscreen controls.
  <u>Applies to</u>: AXIS XPQ1785

- Added support for T61 Mk II series.
  <u>Applies to</u>: AXIS M3085-V, AXIS M3086-V, AXIS M3088-V and AXIS M4216-LV/-V

- Products with Hardware ID 971 only supports active track 11.4.52 and later.
  The hardware ID can be found in **Plain config > Properties > System > Hardware ID**.
  <u>Applies to</u>: AXIS M5075-G

- Added support for encrypted file system that protects the confidentially and integrity of file system stored information against physical information extraction attempts.
  <u>Applies to</u>: AXIS M1055-L, AXIS M1075-L, AXIS M2035-LE, AXIS M2036-LE, AXIS M3085-V, AXIS M3086-V,

AXIS M3088-V, AXIS M3215-LVE, AXIS M3216-LVE, AXIS M4216-LV/-V, AXIS P1465-LE, AXIS P1467-LE,
AXIS P1468-LE, AXIS P3265-LV/-LVE/-V, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS P4705-PLVE, AXIS P4707-PLVE,
AXIS Q1656/-B/-BE/-BLE/-DLE/-LE, AXIS Q1961-TE, AXIS Q3536-LVE and AXIS Q3538-LVE/-SLVE

- The new web interface is enabled per default. The former web interface is still available as a fallback.
  <u>Applies to</u>: AXIS D2110-VE, AXIS P1377, AXIS P1378, AXIS Q1615/-LE Mk II, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS XPQ1785, ExCam XF P1377, ExCam XF Q1645 and F101-A XF P1377

AXIS OS 11.4.74

Release date: 2023–05–17

Corrections

- Corrected an issue where AXIS P5676-LE does not get enough power from IEEE 802.3bt-midspan when combined with the Q6100-E.
  <u>Applies to</u>: AXIS P5676-LE

AXIS OS 11.4.69

Release date: 2023–05–09

Corrections

- Improved day/night switching stability.
  <u>Applies to</u>: AXIS P4707-PLVE

AXIS OS 11.4.63

Release date: 2023-04-24

New products

- AXIS M3905-R

- AXIS P3905-R Mk III

- AXIS Q3626-VE

- AXIS Q3628-VE

- AXIS M4215-LV/-V

- AXIS M4218-LV/-V

- AXIS M4327-P

- AXIS M4328-P

Corrections

- Corrected an issue that caused stitching errors.
  <u>Applies to</u>: AXIS Q3819-PVE

- Corrected an issue with Smoke alert where status wasn't shown as text overlay in the image.
  <u>Applies to</u>: AXIS XPQ1785

AXIS OS 11.4.52

Release date: 2023-04-12

Corrections

- Corrected ONVIF reply for MaximumRetentionTime.

- Corrected an issue where the frame rate in ONVIF media profile were not correctly displayed in the web interface.

- Corrected an issue with send notification through HTTP/HTTPS in action rules/events where preview URL was showing wrong amounts of '?'.

- Corrected an issue with action rules/events, where upload of images was not working correctly.

- Corrected an issue where corrupted certificate prevented AXIS OS upgrade.

- Corrected an issue with metadata color when likelihood is set to 0.

- Added fallback mode for network hardware that is limited to 10BASE-T and 100BASE-TX transmission.
  Applies to: All *AXIS ARTPEC-7 on page 79* products

- Corrected an issue where the device in come cases get unreachable if the SD card is broken.
  Applies to: All products with SD card support

- Corrected an issue with rotation and HDMI output.
  Applies to: AXIS FA54

- Improved rain suppression when both rain detector and swaying object filter are enabled.
  Latest radar classifier is enabled by default. No factory default is required anymore.
  Applies to: AXIS D2110-VE and AXIS Q1656-DLE

- Improved stability of color presentation for isothermal palettes. Recommended to use either isothermal palettes or normal palettes otherwise the image quality will be affected.
  Applies to: AXIS Q1961-TE

- Corrected and issue with Autopilot application not working correctly.
  Applies to: AXIS Q6010-E and AXIS Q6100-E

- Corrected an issue where artifacts could occur when WDR is enabled and panning and tilting between different lighting conditions.
  Applies to: AXIS Q6315-LE

Limitations

- The temperature measurements displayed in the overlay of live view contains one decimal which is always .0.
  Applies to: AXIS Q1961-TE

- Due to unexpected behavior, disabling network ports is no longer available. This will be resolved in a future version. A temporary button has been added to re-enable previously disabled ports.
  Applies to: AXIS S3008

AXIS OS 11.3

Release date: 2023-02-21

Features for all products

- Added **Optimize for storage** as an option for Zipstream. Make sure your VMS, applications and other clients are compatible before enabling this. See below video for more information.

AXIS OS Release Notes

AXIS OS 11

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

help.axis.com/?&piaId=00000&section=axis-os-11-3

Cybersecurity updates

- Updated *Apache to version 2.4.55* to increase the overall cybersecurity level.

- Updated OpenSSL to version 1.1.1t to increase overall cybersecurity level.

- Updated *cURLl to version 7.87.0* to increase overall cybersecurity level.

- Receiving ICMP secure redirects from other network hosts are now disabled to increase overall minimum cyber security level.

- The Security level for 'AutoRepair', 'FileSystem' and 'RequiredFileSystem' parameters has been lowered.

- Improved the manager client certificates and added support for installing multiple trust certificates and requesting/installing a second client certificate.

Analytics updates

- Updated Video Motion Detection to version 4.5.4.

- Updated AXIS License Plate Verifier to version 2.7.1.
  Applies to: AXIS P1445-LE-3, AXIS P1455-LE-3 and AXIS P3245-LVE-3

- AXIS Object Analytics:

  - Added option to keep Time in area (BETA) event state high as long as the alarming object is tracked.

  - Added Crossline counting (BETA) scenario which counts objects that cross a virtual tripwire in a defined direction.

  - Limitations:
    — Accumulated counts in Crossline counting (BETA) are reset if the camera or application is restarted.
    — Crossline counting (BETA) data table in metadata overlay not available.
    Applies to: Products based on *AXIS ARTPEC-7 on page 79* and *Ambarella CV25 on page 80*
    — Crossline counting (BETA) data table in visual confirmation not available.
    Applies to: Products based on *AXIS ARTPEC-7 on page 79.*

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, see *AXIS Object Analytics.*

Product specific features

- Added support for ONVIF profile T.
  Applies to: AXIS P3715-PLVE, AXIS V5925 and AXIS V5938

- Added additional audio configuration options.
  Applies to: AXIS M1075-L

- Added setting in web-interface for configuring HTTP/HTTPS.
  Applies to: AXIS S3008

- Added the possibility to set power configuration to PoE class 3.
  Applies to: AXIS Q3536-LVE and AXIS Q3538-LVE

- Improved API validation and web feedback for reader functionality.
  <u>Applies to</u>: AXIS A8207-VE and AXIS A8207-VE Mk II

- Increased number of supported D2110-VE devices in the same coexistence area from 3 to 6.
  <u>Applies to</u>: AXIS D2110-VE

- Added reference map calibration in the new web interface.
  <u>Applies to</u>: AXIS D2110-VE and AXIS Q1656-DLE

- Improved alignment between radar and camera.
  Improved filtering of false tracks caused by rain.
  <u>Applies to</u>: AXIS Q1656-DLE

- Added support for YUV streams on thermal channels.
  <u>Applies to</u>: AXIS Q1951-E, AXIS Q1952-E and AXIS Q1961-TE

- AXIS Audio Manager Edge: Added possibility to change name on site.
  <u>Applies to</u>: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110, and AXIS C8210

- Added support for a 10 band graphic audio equalizer which is configurable in the new web interface **Audio > Audio Mixer > Ten band graphic equalizer**.
  <u>Applies to</u>: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110, and AXIS C8210

- Added support for a 10 band graphic audio equalizer which is configurable in the new web interface **Audio > Audio Mixer > Ten band graphic equalizer**. Axis products using audio via portcast over T6101 are currently not supported.
  <u>Applies to</u>: AXIS M3077-PLVE

AXIS OS 11.3.74

Release date: 2023-04-04

Corrections

- Corrected an issue that disturbed production. Breaks downgrading of the camera beyond this version.
  <u>Applies to</u>: AXIS XPQ1785

AXIS OS 11.3.71

Release date: 2023-03–23

Corrections

- Corrected an issue where I/O may end up in the wrong state.
  <u>Applies to</u>: AXIS D3110

AXIS OS 11.3.70

Release date: 2023-03–21

Application updates

- Updated Video Motion Detection to version 4.5.4.

- Updated AXIS Object Analytics to version 1.6.28.
  <u>Applies to</u>: Products based on , *AXIS ARTPEC-7 on page 79* and *Ambarella CV25 on page 80*
  Note that not all products support AXIS Object Analytics. For more information on compatible products and features, see *AXIS Object Analytics*

Corrections

- Corrected an issue with storage using IPv6, which was not working correctly.
  Applies to: AXIS M1075–L

- Corrected an issue with domain name (DNS SRV record) for SIP.
  Applies to: All products with SIP support.

- Added fallback mode for network hardware that is limited to 10BASE-T and 100BASE-TX transmission.
  Applies to: AXIS P1375/-E, AXIS P1377/-LE and AXIS P1378/-LE

- Corrected an issue that caused some noise on the image in low light.
  Applies to: P1465-LE

AXIS OS 11.3.57

Release date: 2023-02-21

Corrections

- Corrected an issue where is was not possible to install an application using manifest.json if an older application using package.conf was already installed.

- Corrected an issue where it was not possible to save images using compression set to 10 or below to a network share when SMB 3.1.1 was used.

- Corrected an issue where it was not possible to save to folders containing Japanese characters.

- Corrected an issue with events using IPv6 recipient.

- Corrected an issue where a connected USB device was not detected.
  Applies to: AXIS D3110

- Corrected an issue with simultaneous PTZ Onvif requests.
  Applies to: All products with PTZ support.

- Corrected an issue where there was no live view using Low Latency Mode.
  Applies to: AXIS M5075-G

- Corrected an issue where the IR led was turned off during the download of the server report.
  Applies to: AXIS Q6135-LE

- Corrected an IR-LED issue causing temperatures and image degradation in high ambient temperatures above 35°C, when IR light is activated at full power.
  Applies to: AXIS Q6318-LE

Limitations

- Logout from the web interface is currently not supported in non chromium browsers, such as Firefox and Safari.

- A reset to factory default settings is required when upgrading to AXIS OS 11.3 from versions 11.1 or 11.2.
  Applies to: AXIS Q1961-TE

AXIS OS 11.2

Release date: 2023-01-09

Features for all products

- A Software Bill of Materials (SBOM) will be delivered with all AXIS OS releases on active track from now on.
  For more information, see *Software Bill of Materials*.

- A Preview mode is added to the new web interface.
  Preview mode will be available 2 hours after restart and is disabled when password is set.
  Possibility to see video stream, take image snapshot, set focus and if supported also set zoom level.
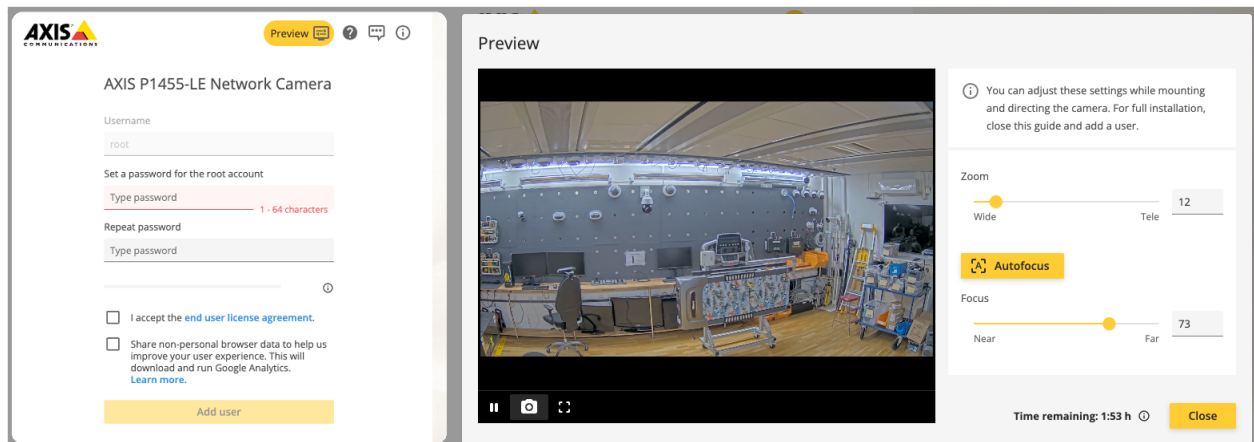
- The new web interface has been changed to a yellow theme.

- Server report now includes the device current time zone/UTC offset.

- Added functionality for displaying recording database statistics in the server report.

- Added option to only allow signed applications. For more information, see *ACAP Service Portal for administrators.*

Cybersecurity updates

- Updated *cURL to version 7.86.0* to increase overall cybersecurity level.

Breaking changes

- Removed the built in motion detection, also known as VMD1.

Analytics updates

- Updated AXIS Object Analytics to version 1.5.22.

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, see *AXIS Object Analytics.*

Product specific features

- Added live video streaming indicator.
  Applies to: AXIS P3727-PLE

- Added the possibility to increase font size to 60 in text overlay.
  Applies to: AXIS Q9216-SLV

- Added support for AXIS T99A12 Positioning Unit.
  Applies to: AXIS P1375-E, AXIS P1377-LE and AXIS P1378-LE

- Added power profiles under **System > Power settings** in the new web interface.
  Applies to: AXIS Q1798-LE and AXIS Q6318-LE

- Extended Sony Visca protocol to support Cisco Webex Controllers.
  Applies to: AXIS V5925 and AXIS V5938

- Added the ability to disable network traffic on switch ports in the web interface and VAPIX using network-settings.cgi.
  Applies to: AXIS S3008

- AXIS Audio Manager Edge: Adjustments and improvements to the user experience when configuring schedules.
  Applies to: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C1610-VE, AXIS C8110 and AXIS C8210

- Added the possibility to use an AccessList that is based on incoming Caller ID or Sip server IP address. To only allow incoming calls from the specified Caller ID or SIP Server IP address.
  <u>Applies to</u>: All products with SIP support.

- New font for overlays - Noto Sans.
  Added support for new language scripts: Arabic, Hebrew, Thai, Gurmukhi, Georgian, Javanese, Gujarati, Bengali, Telugu, Tamil, Malayalam, Oriya, Lao, Kannada, Myanmar, Sundanese, Mongolian, Gujarati, Devanagari, Hindi.
  <u>Applies to</u>: AXIS M2035-LE, AXIS M2036-LE, AXIS M3085-V, AXIS M3086-V, AXIS M3088-V, AXIS M4216-LV and AXIS M4216-V

- Products with Hardware ID 9A1 only supports version 11.2.53.
  Products with hardware ID 756 supports all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > Hardware ID..**
  <u>Applies to</u>: AXIS Q6215-LE

- Products with Hardware 9A0.1, 9A0.2 and 9A0.3 only support active track version 11.2.53.
  Products with hardware ID 796, 7C3.1 and 7C3.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > Hardware ID.**
  For more information, read the related *FAQ*.
  <u>Applies to</u>: AXIS P1375-E, AXIS P1377-LE and AXIS P1378-LE

- New rain suppression algorithm to filter false alarms caused by rain.
  Improved radar object classification, radar swaying object filter and radar detection performance.
  New on-screen controls: Radar augmented overlay. Radar bounding boxes. Radar Picture In Picture.
  <u>Applies to</u>: AXIS Q1656-DLE

AXIS OS 11.2.71

Release date: 2023-02-07

- Corrected an issue where audio input in some rare occasions did not work.
  <u>Applies to</u>: AXIS Q1656/-B/-BE/-BLE/-DLE/-LE, AXIS Q3536-LVE and AXIS Q3538-LVE

AXIS OS 11.2.68

Release date: 2023-02-06

Corrections

- Corrected an issue where audio was not working correctly in the Companion and AXIS Camera Station iOS apps.
  Correction was also needed in the iOS apps, therefore iOS Companion version 7.11.14 or later and iOS AXIS Camera Station 4.6.12 or later, are required.
  <u>Applies to</u>: All products with audio out.

- Corrected an issue that caused Directional Audio Detection to not work.
  <u>Applies to</u>: AXIS Q6100-E

- Corrected an issue where Automatic Gain Control did not work correctly.
  <u>Applies to</u>: AXIS D3110

AXIS OS 11.2.66

Release date: 2023–01–26

Corrections

- Corrected an issue with ONVIF conformance.
  <u>Applies to</u>: AXISQ3819-PVE

AXIS OS 11.2.64

Release date: 2023-01-23

New products

- AXIS P5676-LE

Corrections

- Corrected an IR-LED issue causing temperatures and image degradation in high ambient temperatures above 35°C, when IR light is activated at full power.
  Applies to: AXIS Q6318-LE

AXIS OS 11.2.61

Release date: 2023-01-17

- Software Bill of Materials (SBOM) - First release.
  For more information, see *Software Bill of Materials*.

New products

- AXIS F9104-B Main Unit

- AXIS F9111 Main Unit

- AXIS F9114 Main Unit

- AXIS F9114-B Main Unit

- AXIS Q1961-TE

Corrections

- Improved QuickZoom functionality to switch only during longer continuous zoom movements, ensuring smoother zoom experience with the mouse scroll wheel.
  Applies to: AXIS Q6135-LE and AXIS Q6318-LE

AXIS OS 11.2.53

Release date: 2023-01-09

New products

- AXIS C1210-E

- AXIS C1211-E

- AXIS C1310-E

- AXIS C1410

- AXIS C1510

- AXIS C1511

- AXIS C8110

- AXIS C8210

- AXIS M1055-L

- AXIS M1075-L

- AXIS Q1656-DLE

Corrections

- Corrected an issue with certificates, where the certificate name was used as the identity.

- Corrected an issue that could cause Action Rules to be deleted after a system restart.

- Most UTF-8 characters are now allowed in ONVIF user names.

- Improved analytics performance.
  Applies to: AXIS Q1656/-B/-BE/-BLE/-DLE/-LE

- Corrected an issue with day/night mode.
  Applies to: AXIS P1375, AXIS P1377, AXIS P1378, ExCam XF P1377 and F101-A XF P1377

- AXIS OS 11.2.53 requires Audio Manager Pro 4.2.1 or later.
  Applies to: AXIS C1210-E, AXIS C1211-E, AXIS C1310-E, AXIS C1410, AXIS C1510, AXIS C1511, AXIS C8110 and AXIS C8210

- Corrected an issue with video streaming when using dynamic fps in Zipstream.
  Applies to: AXIS Q9216-SLV

- Corrected an issue which could cause audio clips not to play to completion
  Applies to: AXIS C1410, AXIS P1375, AXIS P1377, AXIS P1378, ExCam XF P1377 and F101-A XF P1377

- Corrected an issue where the Iris value was not shown when using Auto Iris.
  Applies to: AXIS V5925

Limitations

- Radar information like speed and distance are not burnt-in Axis Object Analytics metadata overlay neither the stream live view or recording, the radar information are only available in the Axis Object Analytics Scenario setup.
  Applies to: AXIS Q1656-DLE

- Audio not working correctly for iOS Companion. A correction will be available in coming release and an upgrade is recommended. The release notes will include the correction once solved.
  Applies to: All products with audio out.

AXIS OS 11.1

Release date: 2022-11-08

Features for all products

- Added support for Network Time Security (NTS), which provides cryptographic security for the client-server mode of the Network Time Protocol (NTP). This allows users to obtain time in an authenticated manner. Read more about NTS *here*.

- Added support for vehicle color in the ONVIF RTSP stream and introduced a likelihood attribute to the color representation.

- Added support for multiple dynamic text overlays. Previously, only one dynamic text overlay was supported through the modifier #D, but now modifiers #D1 through #D16 are supported. Note: #D0 is identical to the old #D. Currently only available via VAPIX.

- Updated time zone database version from 2022a to 2022d. In version 2022b some common time zones, such as Europe/Amsterdam, Europe/Copenhagen, Europe/Oslo, Europe/Stockholm, and more, are removed from the recommended list of time zones.

- Added the possibility for API Discovery CGI to access anonymously for simpler device capability identification.

- Added product full name to metadata when exporting recordings.

- Updated End User License Agreement.

- Video Object Detection will for certain capture modes produce detections under privacy masks. As a result of this recipients that use Video Object Detection and that do not want to use detections under privacy masks need to filter out these.

Cybersecurity updates

- Updated OpenSSL to version 1.1.1s to increase the overall cybersecurity level.

Breaking changes

- Removed the possibility to access the device via the FTP protocol, to increase overall minimum cybersecurity level. For troubleshooting purposes it is recommended to use secure SSH access. Note that upload from the device to an FTP server is still possible. For more information, visit *SSH access* in the AXIS OS portal.

- The edit.cgi has been removed. For more information, visit the *VAPIX library*.

- The libvidcap has been removed. Use Video capture API instead. For more information, visit the *ACAP developer guide*.

Analytics updates

- Updated AXIS License Plate Verifier to version 2.5.0.
  <u>Applies to</u>: AXIS P1445-LE-3, AXIS P1455-LE-3 and AXIS P3245-LVE-3

- AXIS Object Analytics:

    - Added possibility to select whether bounding boxes should be displayed in metadata overlay.

    - Adjustments performed to tracking engine parameters, improving general object tracking behavior.

Note that not all products support AXIS Object Analytics. For more information on compatible products and features, see *AXIS Object Analytics*.

Product specific features

- Added a new tab for occupancy statistics and export.
  <u>Applies to</u>: AXIS P8815-2

- Added possibility to manually activate heaters in the web interface.
  Added an optional power mode where the heaters are always deactivated.
  <u>Applies to</u>: AXIS Q6215-LE

- Added support for 15 fps with resolution 1080p for MJPEG and single stream.
  <u>Applies to</u>: AXIS M2035-LE, AXIS M2036-LE, AXIS M3085-V, AXIS M3086-V and AXIS M4216-LV/-V

AXIS OS 11.1.72

Release date: 2022-12-14

New products

- AXIS M3088-V

- AXIS M3215

- AXIS M3216

- AXIS P4705-PLVE

- AXIS P4707-PLVE

Corrections

- Corrected and improved the rollback feature

- Corrected an issue where video was not streaming over HTTPS.
  <u>Applies to</u>: AXIS P8815

- Improved DRAM performance.
  <u>Applies to</u>: AXIS M3215-LVE, AXIS M3216-LVE, AXIS P1467-LE, AXIS P1468-LE, AXIS P3265-V/-LV/-LVE, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS P4705-PLVE, AXIS P4707-PLVE, AXIS Q1656/-B/-BE/-BLE/-DLE/-LE, AXIS Q3536-LVE and AXIS Q3538-LVE

- Corrected an issue with focus being lost over time.
  <u>Applies to</u>: AXIS M3215-LVE, AXIS M3216-LVE, AXIS P1467-LE, AXIS P1468-LE, AXIS P3265-V/-LV/-LVE, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS P4705-PLVE, AXIS P4707-PLVE, AXIS Q1656/-B/-BE/-BLE/-DLE/-LE, AXIS Q3536-LVE and AXIS Q3538-LVE

- Corrected an issue where autofocus needed to be re-applied when the ambient temperature changed.
  <u>Applies to</u>: AXIS P3265-V/-LV/-LVE, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS Q3536-LVE and AXIS Q3538-LVE

AXIS OS 11.1.65

Release date: 2022-11-28

New products

- AXIS Q6318-LE

- AXIS Q8615-E

Corrections

- Corrected an issue where rotated image perspective is invalid in AXIS Object Analytics, after upgrade.

- Corrected an issue where SIP was not working correctly.
  <u>Applies to</u>: AXIS D3110 and AXIS D4100–E

- Corrected an issue where power profiles setting was lost after upgrade.
  <u>Applies to</u>: AXIS Q6215–LE

AXIS OS 11.1.61

Release date: 2022-11-21

Corrections

- Corrected an issue with loss of focus in wide infinity, that could occur after upgrading from 10.9.
  <u>Applies to</u>: AXIS P1448-LE

- Corrected an issue where the camera was not getting enough power when using certain POE switches.
  <u>Applies to</u>: AXIS Q6075 and ExCam XPT Q6075

- Improved system stability.

AXIS OS 11.1.55

Release date: 2022-11-08

Corrections

- Corrected an issue where ACAP application parameters was faulty reset after AXIS OS upgrade.

- The vdo_stream_get_info capture API now returns the resulting channel.

- Improved classification time for fast vehicles.
  <u>Applies to</u>: AXIS D2110-VE

- Removed the limitation of disabling more than 4 views.
  <u>Applies to</u>: AXIS M3067-P and AXIS M3068-P

- Corrected an issue where operator user was not able to open door through On-screen Controls.
  <u>Applies to</u>: AXIS A8207-VE and AXIS A8207-VE MK II

- Corrected an issue with the privacy masks being moved when using pan and tilt.
  <u>Applies to</u>: AXIS Q6215-LE

- Corrected microphone power type when the product is used in combination with AXIS T6101 audio module. Removed duplicate input and output gain values when using the product in combination with AXIS T6101 audio module. Applies to: AXIS P3255-LVE

- Corrected an issue where the camera was not getting enough power when using certain POE switches. Applies to: AXIS Q6075 and ExCam XPT Q6075

AXIS OS 11.0

Release date: 2022-09-26

Features for all products

- Added list of ongoing recordings to the Status page in the web interface.

- When UserDataEnabled is enabled for edge storage recordings, the embedded SEI message has previously been stored in its own SimpleBlock inside a mkv file. It is now stored in the same block as the access unit instead

Cybersecurity updates

- Updated *cURL to version 7.85.0* to increase overall cybersecurity level.

- Changed SNMPv3 default authentication mode from SHA-1 to SHA-256 to increase overall minimum cybersecurity level. For more information, see *SNMPv3 access.*

- To increase the overall cyber security level, it is no longer allowed to set both System.HTTPAuthRTSPOverHTTP and RTSP.AuthenticateRTSPOverHTTP to "no" at the same time.

Breaking changes

- The date.cgi has been removed and replaced by time.cgi. For more information, visit the *VAPIX library.*

- Support to request an image in BMP file format has been removed. For more information, visit the *VAPIX library.*

- Support to record a mediaclip using the Mediaclip API has been removed. For more information, visit the *VAPIX library.*

- Updated PTZ VAPIX version to 2. For more information, visit the *VAPIX library.*

- Changed access for a number of parameters in the root.PTZ parameter group.

- Support for proxy SOCKS version 4 and 5 has been removed.

- The installable audio decoder for AAC has been removed and is no longer downloadable.

- The installable decoder for H.264 has been removed and is no longer downloadable.

Product specific updates

- New font for overlays - Noto Sans. Added support for new language scripts: Arabic, Hebrew, Thai, Gurmukhi, Georgian, Javanese, Gujarati, Bengali, Telugu, Tamil, Malayalam, Oriya, Lao, Kannada, Myanmar, Sundanese, Mongolian, Gujarati, Devanagari, Hindi. Applies to: All products based on *AXIS ARTPEC-7 on page 79* and *AXIS ARTPEC-8 on page 79.*

- All relevant PTZ drivers are built into the AXIS OS. Support for uploading and removing PTZ-drivers has been removed. Applies to: AXIS M7104, AXIS M7116, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P7304, AXIS P7316, AXIS Q1615/-LE Mk II, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1656/-LE/-B/-BE/-BLE, AXIS Q1659 and AXIS Q1715.

- Added support for Signed video in Edge storage. The cryptographic signature is included in exported recordings from SD card and network shares.
  Applies to: AXIS M2035-LE, AXIS M2036-LE, AXIS M4216-V/-LV, AXIS M4308-PLE, AXIS M5000/-G,
  AXIS P1467-LE, AXIS P1468-LE, AXIS P3265-V/-LV/-LVE, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS P3727–PLE,
  AXIS 1656/-LE/-B/-BE/-BLE, AXIS Q1715, AXIS Q3536-LVE, AXIS Q3538-LVE and AXIS Q6078–E.

- Added support for ONVIF profile M
  Applies to: AXIS A8207-VE, AXIS A8207-VE MK II, AXIS FA54, AXIS M5000/-G, AXIS M7104, AXIS M7116, AXIS P3715-PLVE,
  AXIS P3717-PLE, AXIS P3719-PLE, AXIS P3727-PLE, AXIS P7304, AXIS P7316, AXIS Q6010-E, AXIS Q6100-E and
  AXIS Q8752-E.

- Added support for 8bit BMP transparency.
  Applies to: AXIS M2035-LE, AXIS M2036-LE, AXIS M4216-V/-LV and AXIS Q9216-SLV.

- Added support for ONVIF Profile M and ONVIF Profile T
  Applies to: AXIS A8207-VE and AXIS A8207-VE MK II.

- Added support for a 10 band graphic audio equalizer which is configurable in the new web interface **Audio > Audio Mixer > Ten band graphic equalizer**. Axis products using audio via portcast over T6101 are currently not supported.
  Applies to: AXIS M4308-PLE and AXIS V5925.

- Increased the number of Audio Clip files to 50 instead of 10.
  Applies to: AXIS P5655-E.

Analytics updates

- The structure of the sample frame for metadata analytics producer named AnalyticsSceneDescription has changed. One object per class/subclass in the frame. The sample frame is provided by the "getSupportedMetadata" API using both VAPIX and ONVIF.Added list of ongoing recordings to the Status page.

- The metadata analytics stream named objectsanalytics is renamed to AnalyticsSceneDescription which provides identical content.

- AXIS Live Privacy Shield 2.2 is required from AXIS OS 11.0 and later.

- Added support for AXIS Live Privacy Shield.
  Applies to: AXIS P1467-LE and AXIS P1468-LE.

- Updated AXIS Object Analytics to version 1.0.44.
  Applies to: AXIS P3727-PLE and AXIS Q3819-PVE.

- Updated AXIS Object Analytics to version 1.3.12.
  Applies to: AXIS M4216-V/-LV, AXIS P3255-LVE, AXIS P3265-V/-LV/-LVE, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE,
  AXIS Q1615/-LE Mk III, AXIS Q1656/-LE/-B/-BE/-BLE, AXIS Q1715, AXIS Q3536-LVE and AXIS Q3538-LVE.

AXIS OS 11.0.108

Release date: 2022-10-28

Corrections

- Corrected an issue where upgrade from 10.9.4 to 11.0 was not possible.
  Applies to: AXIS P3265-LVE 22mm, AXIS 3267-LV/-LVE and AXIS P3268-LV/-LVE.

- Corrected an issue that in rare occasions could prevent the device from starting up during upgrade.
  Applies to: AXIS P3265-V/-LV/-LVE, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS Q1656/-B/-BE/BLE/-LE,
  AXIS Q3536-LVE and AXIS Q3538-LVE

Limitations

- When upgrading AXIS OS from versions below 10.10.69 and metadata producers are used, the metadata producers must be enabled manually via **System > Analytics metadata**.

AXIS OS Release Notes

AXIS OS 11

AXIS OS 11.0.104

Release date: 2022-10-24

New products

- AXIS P1465-LE

Corrections

- Corrected an issue with privacy masks, where the option mosaic color (pixilated pattern) was not working correctly.
  Applies to: AXIS P1467-LE and AXIS P1468-LE

AXIS OS 11.0.103

Release date: 2022-10-24

Corrections

- Corrected an issue where the PTZ motor was not getting enough power.
  Applies to: AXIS Q6315-LE

AXIS OS 11.0.99

Release date: 2022-10-17

New products

- AXIS XPQ1785

AXIS OS 11.0.95

Release date: 2022-10-11

Corrections

- Corrected an issue with broken image that could happen after start up.
  Applies to: AXIS M2035-LE

AXIS OS 11.0.93

Release date: 2022-10-03

New products

- AXIS D3110

Corrections

- General improvements to the platform.

- Improved the IR cut filter switching.
  Applies to: All products with IR cut filter.

AXIS OS 11.0.89

Release date: 2022-09-26

Corrections

- Corrected an issue where 802.1X would not trust the intermediate certificate authority (CA).

- Corrected an issue to make it possible to create certificates with Common Name up to 64 characters

- Increased motion detection sensitivity when large illumination changes are detected, improving general behavior for applications that make use of this engine and data.

- Improved streaming behavior when using always multicast with auto rotation enabled.

- Corrected an issue with data export when a non-latin device name is used.
  Applies to: AXIS P8815-2

- Corrected an issue with auto focus not working correctly.
  Applies to: AXIS M5074, AXIS M5075, AXIS P3245-LV/-LVE, AXIS P3247-LV/-LVE and AXIS P3248-LV/-LVEAXIS P3255-LVE,AXIS P5654-E,AXIS P5655-E,AXIS Q1700-LE,AXIS Q1715,AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1798-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, AXIS Q3527-LVE, AXIS Q6135-LE, AXIS Q8752–E, XP40-Q1785, F101-A XF Q1785, XF40-Q1785 and ExCam XF Q1785.

LTS 2022 - 10.12

Support phase: 2022 – 2027-12-31

Go to *Products on LTS 2022 - 10.12 on page 84* for a list of products on this track.

Release notes for older versions of AXIS OS 10 can be found *here.*

AXIS OS 10.12.228

Release date: 2024-03-12

Cybersecurity updates

- Addressed CVE-2024-0055. For more information, please visit the *Axis vulnerability management portal.*

- Updated OpenSSL to version 1.1.1x to increase overall cybersecurity level.

- Updated *cURL to version 8.6.0* to increase overall cybersecurity level.

Corrections

- Updated mDNS Responder Daemon (mDNSResponder) to version 2200.60.25.0.4, enhancing overall system stability.

- Updated time zone database version to 2024a.

- Corrected an issue where the camera did not return to the start position after being physically forced to pan.

- Extended the number of preset positions for the built-in Pelco driver from 32 to 100. Additionally, introduced a new config option in plain configuration (UserAdv parameter).

AXIS OS 10.12.221

Release date: 2024–01–29

Cybersecurity updates

- Addressed CVE-2023-5800. For more information, please visit the *Axis vulnerability management portal.*

- Updated *cURL to version 8.5.0* to increase overall cybersecurity level.

- Updated *Apache to version 2.4.58* to increase the overall cybersecurity level.

Corrections

- Corrected an issue where it was not possible to add license if the ACAP uses semantic versioning.

- Corrected an issue causing slight waves/vibrations in the image.
  Applies to: AXIS Q6225-LE

- Addressed various stability issues in the SIP daemon.
  Applies to: AXIS A8207-VE, AXIS A8207-VE Mk II and AXIS I8016-LVE

AXIS OS 10.12.213

Release date: 2023–11–09

Cybersecurity updates

- Addressed CVE-2023-21416. For more information, please visit the *Axis vulnerability management portal.*

- Addressed CVE-2023-21418. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-4911. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-5553. Note that downgrading the product to an older LTS 2022 version is not possible. For more information, please visit the *Axis vulnerability management portal*.
  Applies to: All products based on *AXIS ARTPEC-8 on page 79*.

- Updated *cURL to version 8.4.0* to increase overall cybersecurity level.

Corrections

- Corrected an issue preventing I/O notifications to be received from AXIS Companion mobile app.

- Corrected a Pan Tilt Zoom issue using Coaxitron driver.
  Applies to: AXIS P7304 and AXIS P7316

AXIS OS 10.12.208

Release date: 2023–10-11

Cybersecurity updates

- Updated *cURL to version 8.3.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1w to increase the overall cybersecurity level.

- Addressed CVE-2023-21414. Note that downgrading the product to an older LTS 2022 version is not possible except for Q3527-LVE that has support for 9.80 LTS. For more information, please visit the *Axis vulnerability management portal*.
  Applies to: AXIS A8207-VE Mk II, AXIS Q3527-LVE and all products based on *AXIS ARTPEC-8 on page 79*

- Addressed CVE-2023-21415. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-21417. For more information, please visit the *Axis vulnerability management portal*.

Corrections

- Corrected an issue where the Web interface was unintentionally modifying the timezone upon loading, even if the device had been previously configured outside of the Web interface.

- Corrected an issue where focus and zoom option was not available in the web interface.
  Applies to: AXIS P3245-LV/-LVE

- Radar track IDs now persist across reboots, preventing collisions with previous boots.
  Increased the maximum track ID limit significantly to prevent track ID repetition from prolonged radar detector usage.
  Applies to: AXIS D2050-VE

- Corrected an issue that caused slow-motion pattern playback when starting two light profiles simultaneously.
  Applies to: AXIS D4100-E

AXIS OS 10.12.199

Release date: 2023–08-21

Features

- Added support for AXIS T6101/T6112 Mk II with the same audio and I/O functionality as when combined with AXIS T6101/T6112.
  Applies to: AXIS M3115-LVE, AXIS M3116-LVE, AXIS M3064-V, AXIS M3065-V, AXIS M3066-V and AXIS M3075-V

Cybersecurity updates

- Updated *cURL to version 8.2.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1v to increase the overall cybersecurity level.

Corrections

- Corrected CVE-2023-21413. For more information, please visit the *Axis vulnerability management portal*.

- Added the possibility to Netd Service to preserve the static resolver configuration even after a soft restore, safeguarding static DNS/Search domain settings.

- Updated the mDNS Responder Daemon (mDNSResponder) to version 1790.80.10 to improve system stability.

- Corrected an issue with incorrect trigger of I/O ports, that occurs at upgrade if an AXIS T6101 or AXIS T6112 is connected to the device.
  Applies to: All products with support for *AXIS T6101 and AXIS T6112*

- Corrected microphone power type when the product is used in combination with AXIS T6101 audio module.
  Applies to: AXIS P3255-LVE

- Improved stability by addressing a potential memory leak in the remote camera control service.
  Applies to: AXIS P3818-PVE, AXIS Q3819-PVE, AXIS Q6010-E and AXIS Q6100-E

- Corrected an issue where manual focus was not working correctly via ONVIF command, if using third-party driver.
  Applies to: AXIS Q1656 and AXIS Q1656-B

- Corrected an issue with Orientation Aid ACAP to be able to move the compass bar correctly via ONVIF commands.
  Applies to: AXIS Q6135-LE and AXIS Q6315-LE

- Corrected an issue where wiper was not possible to run through ONVIF command.
  Applies to: AXIS Q8752-E

AXIS OS 10.12.197

Release date: 2023–08–04

Corrections

- Corrected an issue that could bring the camera in an out of focus state. To activate the correction on affected units, an additional restart is required after the upgrade.
  Applies to: AXIS Q3536-LVE and AXIS Q3538-LVE

AXIS OS 10.12.193

Release date: 2023–07–20

Features

- Improved SNMP Monitoring by adding support for the ipAddressTable OID.

- Updated AXIS License Plate Verifier to version 2.8.4.
  Applies to: AXIS P3245-LVE-3, AXIS P1455-LE-3 and AXIS P1445-LE-3

  - Corrected CVE-2023-21407, CVE-2023-21408, CVE-2023-21409, CVE-2023-21410, CVE-2023-21411, CVE-2023-21412. For more information, please visit the *Axis vulnerability management portal*.

  - Added extra polygons to the Area of Interest for a more flexible coverage of the area.

  - Added the possibility for 2N integration to select the type of event by direction, any, in or out which it can be send to 2N IP device.

  - Added the possibility to set image parameters according to the manual for none AXIS License Plate Verifier kit cameras.

- Added the possibility to send two images with Push Event, one image will be the license plate crop and the other image will be the same frame as used to be saved with the event under **Settings > Image > Save Full Frame**.

- Added a new VAPIX event ALPV.Update. This event will be triggered together with metadata for every updated event.

Corrections

- Corrected the focal length limits when using a CS-mount lens with DC-iris.
  <u>Applies to</u>: AXIS Q1647, AXIS Q1647-LE, AXIS Q1645, AXIS Q1645-LE and ExCam XF Q1645

AXIS OS 10.12.182

Release date: 2023–06–19

Features

- Added support for more than 7 identical streams. The maximum identical streams is equal to the MaxViewers parameter value.

- Enhanced SNMP Monitoring: We resolved a missing TCP sub-tree OID issue in NET-SNMP by adding support for the SNMP TCP MIB object .1.3.6.1.2.1.6. This improvement ensures a smooth and uninterrupted SNMP monitoring experience.

- Improved UPnP compliance by updating the SSDP (Simple Service Discovery Protocol) SERVER header in the standard "OS/version UPnP/1.0 product/version" format and USN (Unique Service Name) field with a UUID in the standard format. This enhances consistency and compatibility.

- Added proxy configuration support to the Owner Authentication Key (OAK) cgi using group root.RemoteService, simplifying setup on networks requiring proxy servers for Internet access and improving the authentication process.

- Updated time zone database version to 2023c.

- Added support for Network speaker pairing (Edge-to-edge technology), enabling synchronization of audio playback.
  <u>Applies to</u>: AXIS Q6225-LE

Cybersecurity updates

- Updated *Apache to version 2.4.57* to increase the overall cybersecurity level.

- Updated *cURL to version 8.1.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1u to increase the overall cybersecurity level.

Corrections

- Corrected an issue with OAK (owner authentication key). It now only produces warnings in the log instead of errors if the device is not able to connect to the internet.

- Corrected an issue where sequence ID modifiers #s and #S were not displaying the expected values.

- Improved performance for video streams when using same configurations.

- Corrected an issue in VDO Api, related to orientation when rotation has been changed.

- Corrected an issue where ONVIF recordings resumed after factory default.

- Updated libupnp to version 1.14.16, fixing a memory leak and improving overall stability.

- Corrected a memory leak in the video service, resulting in improved stability for streaming videos.

- Improved the syslog system stability by fixing a memory leak.

- Corrected an issue where artifacts could appear in the image when WDR is enabled and panning and tilting between different lighting conditions.
  Applies to: AXIS Q6315-LE

- Improved system reliability. To ensure uninterrupted streaming, we have optimized the response time of requests and increased the MCU's IWDG timeout to prevent restarts caused by unreliable communication.
  Applies to: AXIS M3205-LVE and AXIS M3206-LVE

- Corrected a focus setting issue that prevented users from accessing certain functionalities, such as open iris to set focus, autofocus, and resetting functions, when using a DC iris with the camera.
  Applies to: AXIS P1375, AXIS P1377, AXIS P1378, AXIS Q1645, AXIS Q1645-LE, ExCam XF P1377, ExCam XF Q1645 and F101-A XF P1377

- Corrected CVE-2023-21405. For more information, please visit the *Axis vulnerability management portal*.
  Applies to: AXIS A8207-VE and AXIS A8207-VE Mk II

- Corrected an auto focus issue causing inaccurate coordinates on set focus window
  Applies to: AXIS M5074, AXIS M5075/-G, AXIS P3245-LV/-LVE/-V/-VE, AXIS P3245-LVE-3, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3255-LVE, AXIS P5654-E, AXIS P5655-E, AXIS Q1700-LE, AXIS Q1715, AXIS Q1785/-LE, AXIS Q1786-LE, AXIS Q1798-LE, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, AXIS Q3527-LVE, AXIS Q6135-LE, AXIS Q8752-E, ExCam XF Q1785, F101-A XF Q1785, XF40-Q1785 and XP40-Q1785

AXIS OS 10.12.166

Release date: 2023–04–17

Features

- Updated *cURL to version 8.0.1* to increase overall cybersecurity level.

- Updated *Apache to version 2.4.56* to increase the overall cybersecurity level.

- Improved the manager client certificates and added support for installing multiple trust certificates and requesting/installing a second client certificate.

- Products with Hardware ID 971 only supports active track 11.4.52 and later, as well as LTS 2022 version 10.12.166 and later. The hardware ID can be found in **Plain config > Properties > System > Hardware ID**.
  Applies to: AXIS M5075-G

- Added detailed health information from SD cards to the server report, including power cycle statistics and flash wear rates. This improvement allows for a better monitoring of the system's health that can prevent downtime or data loss.

Corrections

- Corrected an issue in mDNS discovery that caused the reported port to be incorrect due to the network byte order not being properly handled. The correct port is now being printed.

- Improved network interface handling to prevent memory leaks and crashes by automatically restarting the web service discovery client daemon (wsdd) when network changes occur, ensuring uninterrupted service.

- Added fallback mode for network hardware that is limited to 10BASE-T and 100BASE-TX transmission.
  Applies to: All *AXIS ARTPEC-7 on page 79* products

- Corrected low-light image quality issues.
  Applies to: AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, ExCam XF Q1785, F101-A XF Q1785, XF40-Q1785 and XP40-Q1785

- Corrected a focus setting issue that prevented users from accessing certain functionalities, such as open iris to set focus, autofocus, and resetting functions, when using a DC iris with the camera.
  Applies to: AXIS P1375, AXIS P1377, AXIS P1378, AXIS Q1645, AXIS Q1645-LE, ExCam XF P1377, ExCam XF Q1645 and F101-A XF P1377

- Corrected an issue where live view via HDMI could be accessed without setting a password. To enhance security, it is now mandatory to set up a password before being able to access live feed on a TV or monitor via HDMI.
  <u>Applies to</u>: AXIS V5925

AXIS OS 10.12.153

Release date: 2023-02-20

Features

- Updated *Apache to version 2.4.55* to increase the overall cybersecurity level.

- Updated OpenSSL to version 1.1.1t to increase overall cybersecurity level.

- Updated *cURL to version 7.87.0* to increase overall cybersecurity level.

- The Security level for 'AutoRepair', 'FileSystem' and 'RequiredFileSystem' parameters has been lowered.

Corrections

- Disabled secure redirects from other network hosts net.ipv4.conf.all.secure_redirects & net.ipv4.conf.default.secure_redirects to increase overall minimum cybersecurity level.

- Corrected an issue where audio was not working correctly in the Companion and AXIS Camera Station iOS apps. Correction was also needed in the iOS apps, therefore requires iOS Companion version 7.11.14 or later, and iOS AXIS Camera Station 4.6.12 or later.
  <u>Applies to</u>: All products with audio out.

- Corrected an issue where is was not possible to install an application using manifest.json if an older application using package.conf was already installed.

- Corrected an issue affecting some O3C clients, that caused internal authentication requests to fail after a few days of uptime.

- Corrected an issue where it was not possible to save images using compression set to 10 or below to a network share when SMB 3.1.1 was used.

- Updated time zone database version to 2022g.

- Improved stability of syslog system by addressing a potential memory leak.

- Improved system stability during roll-back.

- Improved stability of the multicast DNS (mDNS) services.

- Corrected ONVIF reply for MaximumRetentionTime

- Corrected an issue with simultaneous PTZ Onvif requests.
  <u>Applies to</u>: All products with PTZ support.

- Corrected an issue where the IR led was turned off during the download of the server report.
  <u>Applies to</u>: AXIS Q6135-LE

- Corrected an IR-LED issue causing temperatures and image degradation in high ambient temperatures above 35°C, when IR light is activated at full power.
  <u>Applies to</u>: AXIS Q6318-LE

- Improved QuickZoom functionality to switch only during longer continuous zoom movements, ensuring smoother zoom experience with the mouse scroll wheel.
  <u>Applies to</u>: AXIS Q6135-LE and AXIS Q6318-LE

- Corrected an issue with focus being lost over time.
  <u>Applies to</u>: AXIS M3215-LVE, AXIS M3216-LVE, AXIS P1467-LE, AXIS P1468-LE, AXIS P3265-V/-LV/-LVE,

AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS P4705-PLVE, AXIS P4707-PLVE, AXIS Q1656/-B/-BE/-BLE/-LE, AXIS Q3536-LVE and AXIS Q3538-LVE

- Corrected an issue that caused pre-defined controls buttons to appear in the wrong place on the onscreen control panel.
  <u>Applies to</u>: All products with onscreen control support.

- Corrected an issue where autofocus needed to be re-applied when the ambient temperature changed.
  <u>Applies to</u>: AXIS P3265-V/-LV/-LVE, AXIS P3267-LV/-LVE, AXIS P3268-LV/-LVE, AXIS Q3536-LVE and AXIS Q3538-LVE

AXIS OS 10.12.145

Release date: 2023–02–02

- Improved day/night switching stability. After upgrade a power off/on of the camera is required.
  <u>Applies to</u>: AXIS M3205-LVE and AXIS M3206-LVE

AXIS OS 10.12.135

Release date: 2022-12-08

Features

- Products with Hardware 9A0.1, 9A0.2 and 9A0.3 only supports LTS 2022 version 10.12.135 and later.
  Products with hardware ID 7796, 7C3.1 and 7C3.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > Hardware ID**.
  <u>Applies to</u>: AXIS P1375–E, AXIS P1377–LE and AXIS P1378–LE

AXIS OS 10.12.130

Release date: 2022–12–05

Features

- Updated cURL to version 7.86.0 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1s to increase the overall cybersecurity level.

Corrections

- Corrected an issue where the metadata producer was disabled after upgrade when upgrading from AXIS OS 10.6 or 10.7 to 10.12.

- Corrected an issue that caused the wrong file size to be reported for recordings larger than 50MB when using FTP.

- Corrected an issue where ACAP application parameters were reset after AXIS OS upgrade.

- Corrected an issue to make it possible to create certificates with Common Name up to 64 characters.

- The vdo_stream_get_info capture API now returns the resulting channel.

- Corrected an issue with video streaming when using dynamic fps in Zipstream.
  <u>Applies to</u>: AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V, AXIS M3205-LV, AXIS M3206-LVE andAXIS Q9216-SLV

- Corrected an issue with broken image that could happen after start up.
  <u>Applies to</u>: AXIS M2035-LE andAXIS M2036-LE

- Corrected an issue where the Iris value was not shown when using Auto Iris.
  <u>Applies to</u>: AXIS V5925

- Corrected an issue which could cause audio clips not to play to completion.
  Applies to: AXIS Q6215-LE

- Corrected an issue that caused privacy masks to shift when using pan and tilt.
  Applies to: AXIS P1375

- Corrected an issue with loss of focus in wide infinity, that could occur after upgrading from 10.9.
  Applies to: AXIS P1448-LE

- Corrected an issue where the camera was not getting enough power when using certain POE switches.
  Applies to: AXIS Q6075 and ExCam XPT Q6075

AXIS OS 10.12.122

Release date: 2022-11-03

Corrections

- Corrected an issue where upgrade from 10.9.4 to 10.12 was not possible.
  Applies to: AXIS P3265-LVE 22mm, AXIS 3267-LV/-LVE and AXIS P3268-LV/-LVE.

AXIS OS 10.12.114

Release date: 2022-10-06

Features

- Updated cURL to version 7.85.0 to increase overall cybersecurity level.

- Added support for RFC8200 IPv6.

Corrections

- Corrected an issue to make it possible to create certificates with Common Name up to 64 characters.

- Corrected an issue that caused no video stream after upgrading from 9.80 LTS.
  Applies to: AXIS Q3527-LVE

- Improved the IR cut filter switching.
  Applies to: All products with IR cut filter.

- Corrected an issue where image processing could fail to work properly after 248 days of uptime.
  Applies to: AXIS Q1645/-LE and ExCam XF Q1645

- Corrected an issue where the new web interface was not showing streaming settings.
  Applies to: AXIS M2035-LE, AXIS M2036-LE, AXIS M3057-PLVE, AXIS M3058-PLVE, AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3067-P, AXIS M3068-P, M3075-V, AXIS M3085-V, AXIS M3086-V, AXIS M3115-LVE, AXIS M3116-LVE, AXIS M3205-LVE, AXIS M3206-LVE, AXIS M4216-V/-LV, AXIS P3719-PLE

Limitations

- When upgrading AXIS OS from versions below 10.10.69 and metadata producers are used, the metadata producers must be enabled manually via **System > Analytics metadata**.

AXIS OS 10.12.104

Release date: 2022-09-13

Features

- Updated cURL to version 7.84.0 to increase overall cybersecurity level.

- Added setting in Action rules for how many times an audio clip should be repeated when played.

- Products with hardware ID 998 only support active track 10.12.104 and later, as well as LTS 9.80.3.14 and later.
  Products with hardware ID 7CA support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  Applies to: AXIS P3925-R

- Products with hardware ID 999 only support active track 10.12.104 and later, as well as LTS 9.80.3.14 and later.
  Products with hardware ID 7CC support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  Applies to: AXIS P3925-LRE

- Products with hardware ID 99A.1 and 99A.2 only support active track 10.12.104 and later, as well as LTS 9.80.3.14 and later.
  Products with hardware ID 91A only support active track 10.10.69 and later, as well as LTS 2020 version 9.80.3.8.
  Products with hardware ID 7CC support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  Applies to: AXIS P3935-LR

- Added the possibility to detect tailgating, if more than one person passes under a counter during a predefined time interval.
  Applies to: AXIS P8815-2.

Corrections

- Improved system stability.

- Corrected an issue that prevented the use of audio clips in action rules.
  Applies to: AXIS A8207-VE and AXIS A8207-VE Mk II

- Improved IR LED dimming algorithm.
  Applies to: AXIS Q3536-LVE and AXIS Q3538-LVE

- Corrected an issue to make WDR enabled as default.
  Applies to: AXIS M1135/-E Mk II and AXIS M1137/-E Mk II

- Corrected an issue where focus is lost over time.
  Applies to: AXIS P3727-PLE

- Corrected an issue in swaying object filters that made video stream flicker and metadata stream fail.
  Corrected an issue where ignore swaying objects was disabled after restart.
  Improved tracking at large angles.
  Improved general radar performance and stability.
  Applies to: AXIS D2110-VE

LTS 2020 - 9.80

Support phase: 2020 – 2025-12-31

AXIS OS 9.80.66

Release date: 2024–05–06

Cybersecurity updates

- Updated OpenSSH to version 9.6p1 to increase overall cybersecurity level.

- Updated cURL to version 8.7.1 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1x to increase overall cybersecurity level.

- Addressed CVE-2024-0054. For more information, please visit the *Axis vulnerability management portal*.

- Removed legacy overlay image CGIs i.e. create_overlay, overlay_set, overlay_del, overlay_image_formats, overlay_list.

Corrections

- Updated time zone database version to 2024a.

AXIS OS 9.80.55

Release date: 2024–02–05

Cybersecurity updates

- Updated *cURL to version 8.5.0* to increase overall cybersecurity level.

- Updated *Apache to version 2.4.58* to increase the overall cybersecurity level.

- Addressed CVE-2023-5800. For more information, please visit the *Axis vulnerability management portal*.

AXIS OS 9.80.49

Release date: 2023–11–01

Cybersecurity updates

- Updated *cURL to version 8.4.0* to increase overall cybersecurity level.

Corrections

- Corrected CVE-2023-21417 and CVE-2023-21418.
  For more information, please visit the *Axis vulnerability management portal*.

- Corrected critical Kernel crashes for improved system stability.
  Applies to: AXIS M2026-LE Mk II, AXIS M3015, AXIS M3016, AXIS M3106-L/-LVE Mk II, AXIS Q6125-LE and ExCam XF M3016

AXIS OS 9.80.47

Release date: 2023–10–13

Cybersecurity updates

- Updated *cURL to version 8.3.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1w to increase the overall cybersecurity level.

Corrections

- Corrected CVE-2023-21415. For more information, please visit the *Axis vulnerability management portal*.

- Improved stability of the WSDD (Web Services Dynamic Discovery) by addressing a potential memory leak and crashes associated with network interface rebinding on network changes.

AXIS OS 9.80.42

Release date: 2023-08-22

Cybersecurity updates

- Updated *cURL to version 8.2.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1v to increase the overall cybersecurity level.

Corrections

- Added proxy configuration support to the Owner Authentication Key (OAK) cgi using group root.RemoteService, simplifying setup on networks requiring proxy servers for Internet access and improving the authentication process.

- Added the possibility to Netd Service to preserve the static resolver configuration even after a soft restore, safeguarding static DNS/Search domain settings.

- Improved stability of UPnP (Universal Plug and Play) service.

- Updated the mDNS Responder Daemon (mDNSResponder) to version 1790.80.10 to improve system stability.

- Improved stability of the syslog system by addressing a potential memory leak.

AXIS OS 9.80.34

Release date: 2023-06-26

Features

- Improved UPnP compliance by updating the SSDP (Simple Service Discovery Protocol) SERVER header in the standard "OS/version UPnP/1.0 product/version" format and USN (Unique Service Name) field with a UUID in the standard format. This enhances consistency and compatibility.

- Updated time zone database version to 2023c.

Cybersecurity updates

- Updated *Apache to version 2.4.57* to increase the overall cybersecurity level.

- Updated *cURL to version 8.1.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1u to increase the overall cybersecurity level.

- Updated libupnp to version 1.14.16, solving a memory leak and improving overall stability.

Corrections

- Corrected an issue with OAK (owner authentication key). It now only produces warnings in the log instead of errors if the device is not able to connect to the internet.

- Improved the handling of SD card timeouts, ensuring that processes no longer hang for prolonged periods when a faulty SD card is detected.
  Applies to: All products with SD card support

AXIS OS 9.80.28

Release date: 2023–04–24

Features

- Updated *Apache to version 2.4.56* to increase the overall cybersecurity level.

- Updated *cURL to version 8.0.1* to increase overall cybersecurity level.

- Improved the manager client certificates and added support for installing multiple trust certificates and requesting/installing a second client certificate.

- Products with Hardware 9A0.1, 9A0.2 and 9A0.3 only support active track version 11.2.53 and later, LTS 2022 version 10.12.135 and later, as well as LTS 2020 version 9.80.28 and later.
  Products with hardware ID 796, 7C3.1 and 7C3.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > Hardware ID**.
  For more information, read the related *FAQ*.
  Applies to: AXIS P1375-E, AXIS P1377-LE and AXIS P1378-LE

Corrections

- Added detailed health information from SD cards to the server report, including power cycle statistics and flash wear rates. This improvement allows for a better monitoring of the system's health that can prevent downtime or data loss.

- Corrected low-light image quality issues.
  Applies to: AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, ExCam XF Q1785, F101-A XF Q1785, XF40-Q1785 and XP40-Q1785

- Added fallback mode for network hardware that is limited to 10BASE-T and 100BASE-TX transmission.
  Applies to: All *AXIS ARTPEC-7 on page 79* products

- Corrected an issue where the "Turn on/off camera heater" option was appearing in the on-screen control dropdown, even though the product does not have a heater.
  Applies to: AXIS P1375-E, AXIS P1377-LE and AXIS P1378-LE

AXIS OS 9.80.22

Release date: 2023-03-07

Features

- Updated *Apache to version 2.4.55* to increase the overall cybersecurity level.

- Updated *cURL to version 7.88.1* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1t to increase overall cybersecurity level.

- Updated time zone database version to 2022g.

- Receiving ICMP secure redirects from other network hosts are now disabled to increase overall minimum cyber security level.

Corrections

- Corrected an issue affecting some O3C clients, that caused internal authentication requests to fail after a few days of uptime.

- Improved stability of syslog system by addressing a potential memory leak.

- Improved stability of the PTZ VAPIX parser.
  <u>Applies to</u>: AXIS M3115-LVE and AXIS M3116-LVE

- Corrected an issue that caused privacy masks to remain the same size during zooming after a restart. The privacy masks will now adjust their size in relation to the rest of the image during zooming, which is the expected behavior.
  <u>Applies to</u>: AXIS Q1700-LE

- Corrected an issue with simultaneous PTZ ONVIF requests.
  <u>Applies to</u>: AXIS P5654-E, AXIS P5655-E, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q6010-E, AXIS Q6074/-E, AXIS Q6075/-E/-S, AXIS Q6125-LE, AXIS Q6215-LE, AXIS Q8641-E, AXIS Q8642-E, D201-S XPT Q6075, ExCam XF Q1785, ExCam XPT Q6075, F101-A XF Q1785, XF40-Q1785 and XP40-Q1785

AXIS OS 9.80.12

Release date: 2022-12-15

Corrections

General improvements.

AXIS OS 9.80.10

Release date: 2022-11-29

Features

- New versioning on AXIS OS LTS 2020. For more information, see *AXIS OS versioning*.

- Updated cURL to version 7.86.0 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1s to increase the overall cybersecurity level.

- Updated time zone database version to 2022d. This version has some common time zones, such as Europe/Amsterdam, Europe/Copenhagen, Europe/Oslo, Europe/Stockholm, and more, removed from the recommended list of time zones.

- Products with Hardware ID 9A1 only supports LTS 2020 version 9.80.10 and later.
  Products with hardware ID 756 supports all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > Hardware ID**.
  <u>Applies to</u>: AXIS Q6215-LE

- Products with hardware ID 97A.1 and 97A.2 only support AXIS OS 10.12.73 and later, as well as LTS 2020 version 9.80.10 and later.
  Products with hardware ID 7CF.1 and 7CF.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS Q6010-E

Corrections

- Corrected an issue that caused a wrong file size to be reported for recordings larger than 50MB when using FTP.

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

- Corrected an issue that on rare occasions caused the image to show horizontal lines or an over-saturated image.
  <u>Applies to</u>: AXIS M3064-V, AXIS M3065-V, AXIS M3066-V, AXIS M3075-V, AXIS M3205-LVE, AXIS M3206-LVE and AXIS Q9216-SLV

AXIS OS 9.80.3.14

Release date: 2022-09-12

Features

- Updated cURL to version 7.84.0 to increase overall cybersecurity level.

- Products with hardware ID 998 only support active track 10.12.104 and later, as well as LTS 9.80.3.14 and later.
  Products with hardware ID 7CA support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS P3925-R

- Products with hardware ID 999 only support active track 10.12.104 and later, as well as LTS 9.80.3.14 and later.
  Products with hardware ID 7CC support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS P3925-LRE

- Products with hardware ID 99A.1 and 99A.2 only support active track 10.12.104 and later, as well as LTS 9.80.3.14 and later.
  Products with hardware ID 91A only support active track 10.10.69 and later, as well as LTS 2020 version 9.80.3.8.
  Products with hardware ID 7CC support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS P3935-LR

Corrections

- Corrected an issue that caused audio via external VMS to stop working.

- Improved focus behavior after an upgrade.
  When upgrade is finished, perform also calibration **System > Maintenance > Optics > Calibrate** and autofocus **Image > Autofocus**.
  <u>Applies to</u>: AXIS P3245-LV/-LVE, AXIS P3247-LV/-LVE and AXIS P3248-LV/-LVE.

AXIS OS 9.80.3.13

Release date: 2022-07-22

Features

- Updated Apache web server to version 2.4.54 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1q to increase overall cybersecurity level.

- Updated cURL to version 7.83.1 to increase overall cybersecurity level.

- Products with hardware ID 991 and 992 only support active track 10.11.87 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 7BD and 7C0 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS M3067-P and AXIS M3068-P

- Products with hardware ID 993.1, 993.2, 994.1 and 994.2 only support active track 10.11.89 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 985.1, 985.2, 986.1 and 986.2 only support active track 10.11.85 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 956.1, 956.2, 956.3 and 956.4 only support active track 10.8.3 and later, as well as LTS track 9.80.3.9 and later.
  Products with hardware ID 91E.1, 91E.2, 91F.1 and 91F.2 only support active track 10.4.0 and later, as well as LTS track 9.80.3.1 and later.
  Products with hardware ID 7BE.1, 7BE.2, 7BF.1 and 7BF.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS P3247-LV/-LVE and AXIS P3248-LV/-LVE

- Products with hardware ID 990 only support active track 10.12.xx and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 7AF support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS Q1798-LE

- Products with hardware ID 981 and 982 only support active track version 10.11.85 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 7BB and 7BC support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS M3115-LVE and AXIS M3116-LVE

- Products with hardware ID 98E.1, 98E.2, 98E.3, 98D.1, 98D.2 and 98D.3 only support active track 10.12.65 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 795, 796, 7C2.1, 7C2.2, 7C3.1 and 7C3.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  For more information, read the related *FAQ*.
  <u>Applies to</u>: AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, F101-A XF P1377 and ExCam XF P1377

- Products with hardware ID 983.1 an 983.2 only support AXIS OS 10.11.85 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 90F.1 and 90F.2 support AXIS OS versions from 10.3.01 and LTS versions from 9.80.3.1.
  Products with hardware ID 79E.1 and 79E.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS P3245-V/-VE

- Products with hardware ID 984.1 and 984.2 only support active track 10.11.85 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 910.1 and 910.2 only support active track 10.3.0.1 and later, as well as LTS track 9.80.3.1 and later.
  Products with hardware ID 79F.1, 79F.2, 79F.3 and 79F.4 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS P3245-LV/-LVE

- Products with hardware ID 987.1, 987.2, 988.1, 988.2, 989.1, 989.2, 98A.1, 98A.2, 98B.1 and 98B.2 only support active track 10.11.87 and later, as well as LTS track 9.80.3.13 and later.
  Products with hardware ID 917.1, 917.2, 918.1, 918.2, 914.1, 914.2, 915.1, 915.2, 916.1 and 916.2 support AXIS OS version 10.6.5 and later, and as well as LTS track 9.80.3.4 and later.
  Products with hardware ID 7D9.1, 7D9.2, 7DA.1, 7DA.2, 7B0, 7B1, 7FA.1 and 7FA.2 support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.
  <u>Applies to</u>: AXIS Q6074/-E, AXIS Q6075/-E, D201-S XPT Q6075 and ExCam XPT Q6075

Corrections

- ONVIF recordings are now continued automatically after disruptions.

AXIS OS 9.80.3.12

Release date: 2022-06-09

Features and corrections

- Updated OpenSSL to version 1.1.1o to increase the overall cybersecurity level.

- General improvements to the LTS 2020 platform.

- Corrected an issue that would cause the AXIS OS upgrade to fail on rare occasions.

- Corrected *CVE-2018-25032*.

AXIS OS 9.80.3.11

Release date: 2022-05-09 (to be rolled out within 3 weeks of release date)

Features

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

- Updated Apache to version 2.4.53 to increase overall cybersecurity level.

- Updated wpa-supplicant to version 2.10 to increase overall minimum cybersecurity level.

Corrections

- General improvements to the LTS 2020 platform.

- Receiving ICMP redirects from other network hosts is now disabled to increase overall minimum cybersecurity level.

- Updated the certificate management API's to handle camera models that do not support Real-Time Streaming Protocol over SSL (RTSPS).

- Corrected *CVE-2021-29462*.

- Corrected *CVE-2021-33910*.

- Improved memory management in the network services daemon.

- On some units focus might drift over time. Lens control has been improved to reduce this type of issues. Calibrate and autofocus the camera after upgrade.
  Applies to: AXIS P3245-V/-VE/-LV/-LVE

AXIS OS 9.80.3.10

Release date: 2022-03-16

Features

- Updated OpenSSL to version 1.1.1m to increase overall cybersecurity level.

- Updated Apache to version 2.4.52 to increase overall cybersecurity level.

Corrections

- Improved HDMI video output.
  Applies to: AXIS M3065-V, AXIS M3066-V and AXIS M3075-V

- Corrected an issue that caused the send images event to stop uploading towards an FTP server when the filename included a space (" ").

- Corrected *CVE-2020-13848*.

- Corrected an issue that prevented the Axis device to stream a 3rd unique video stream in rare conditions.
  Applies to: AXIS Q6125-LE

- Improved handling of empty recordings.

- Support for a new audio codec - ADAU1361 - has been added.
  Applies to: AXIS P3935-LR

- Corrected an issue that caused the IR-cut filter to get stuck halfway.
  Applies to: AXIS P3925-R/-LRE and AXIS P3935-LR

AXIS OS 9.80.3.9

Release date: 2022-02-01

Only for AXIS P3245-LV/-LVE, AXIS P3247-LV/-LVE and AXIS P3248-LV/-LVE.

Features

- Updated Apache to version 2.4.52 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1m to increase the overall cybersecurity level.

- Products with hardware ID 956.x only support 10.8.3 and later, as well as 9.80.3.9 on LTS 2020.
Products with hardware ID 91E.x and 91F.x support 10.4.0 and later, as well as LTS 2020 9.80.3.1 and later.
Products with hardware ID 7BE.x and 7BF.x support all AXIS OS versions.
The hardware ID can be found in **Plain config > Properties > System > HardwareID**.

Corrections

- Corrected an issue that caused the send images event to stop uploading towards an FTP server when the filename included a space (" ").

- Corrected *CVE-2020-13848*.

AXIS OS 9.80.3.8

Release date: 2021-12-20

Features

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

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

- Updated cURL to version 7.79.1 to increase overall cybersecurity level.

- Support for a new audio codec - ADAU1361 - has been added. Products with hardware ID 91A will now support the new codec. The hardware ID can be found via **Plain config > Properties > System > HardwareID**
Applies to: AXIS P3935-LR

Corrections

- General improvements to the LTS 2020 platform.

- Corrected an issue that caused active recordings to be restarted when adding a new recording rule.

- Improved system stability of the Network Services.

- The remote syslog configuration is now preserved during a AXIS OS update within the same track.

- Corrected an issue that caused overlay text flickers when used in conjunction with an event triggered by the **recording ongoing** condition.

- Adjusted the default tilt to range between 0 to -180 degrees.
Applies to: AXIS Q6074-E

- Improved response time of the I/O port monitoring cgi **/axis-cgi/io/input.cgi?monitor=1**.
Applies to: AXIS D2050-VE, AXIS FA54, AXIS P1364/-E, AXIS P1365/-E Mk II, AXIS P1367/-E, AXIS P1368-E, AXIS P5655-E, AXIS Q1615/-LE Mk II, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1798-LE, AXIS Q1941-E, AXIS Q1942-E, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, AXIS Q3527-LVE, AXIS Q6074, AXIS Q6075, AXIS Q6075-S/-SE, AXIS Q8641-E, AXIS Q8642-E, ExCam XF Q1645, ExCam XF Q1785, F101-A XF Q1785, XP40-Q1785 and XP40-Q1942

- Corrected *CVE-2021-3658*.
Applies to: AXIS Companion Cube LW, AXIS Companion Dome WV, AXIS M1045-LW, AXIS M1065-LW, AXIS M3044-WV and AXIS M3045-WV

- Improved stability of the imaging processing to prevent crashes during darkness.
Applies to: AXIS Companion Dome V

- Corrected an issue that could cause 'transmit.cgi' to close the connection prematurely when transmitting audio to the camera.
Applies to: AXIS Companion Bullet LE, AXIS Companion Cube L/-LW, AXIS Companion Dome V/-WV, AXIS Companion Eye L, AXIS Companion Bullet mini LE, AXIS Companion Dome mini LE, AXIS Companion Eye mini L, AXIS Companion Recorder, AXIS D2050-VE, AXIS FA54, AXIS M1045-LW, AXIS M1065-L/-LW, AXIS M1124/-E, AXIS M1125/-E, AXIS M1134, AXIS M1135/-E, AXIS M1137/-E, AXIS M2025-LE, AXIS M2026-LE, AXIS M2026-LE Mk II, AXIS M3015, AXIS M3016, AXIS

M3044-V/-WV, AXIS M3045-V/-WV, AXIS M3046-V, AXIS P9106-V, 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 M3104-L/-LVE, AXIS M3105-L/-LVE, AXIS M3106-L/-LVE, AXIS M3106-L/-LVE Mk II, AXIS M3115-LVE, AXIS M3116-LVE, AXIS M3205-LVE, AXIS M3206-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 P1367/-E, AXIS P1368-E, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P1435-E, AXIS P1435-LE, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3224-V/-VE/-LV/-LVE Mk II, P3225-V/-VE/-LV/-LVE Mk II, AXIS P3227-LV/-LVE, AXIS P3228-LV/-LE, AXIS P3235-LV/-LVE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3247-LV/-LVE, AXIS P3248-LV/-LVE, AXIS P3374-V/-LV, AXIS P3375-V/-VE/-LV/-LVE, AXIS P3717-PLE, AXIS P3807-PVE, AXIS P3925-R/-LRE, AXIS P3935-LR, AXIS P5654-E, AXIS P5655-E, AXIS Q1615/-LE Mk II, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1700-LE, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1798-LE, AXIS Q1941-E, AXIS Q1941-E PT Mount, AXIS Q1942-E, AXIS Q1942-E PT Mount, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, AXIS Q3527-LVE, AXIS Q3615-VE, AXIS Q3617-VE, AXIS Q6010-E, AXIS Q6074/-E, AXIS Q6075/-E/-S/-SE, AXIS Q6125-LE, AXIS Q6215-LE, AXIS Q8641-E, AXIS Q8642-E, AXIS Q9216-SLV, ExCam XF Q1645, ExCam XF Q1785, F101-A XF Q1785, XP40-Q1785 and XP40-Q1942

- Corrected an issue in the temperature controller that caused warnings in the logs after a factory reset.
  Applies to: AXIS P3245-V/-VE

- Updated the header for H.265 streams to not include delay information to avoid that some video clients may mistake it for B-frames.
  Applies to: AXIS M1134, AXIS M1135/-E, AXIS M1137/-E, AXIS M3067-P, AXIS M3068-P, AXIS M3115-LVE, AXIS M3116-LVE, AXIS P1375/-E, AXIS P1377/-LE, AXIS P1378/-LE, AXIS P3245-V/-VE/-LV/-LVE, AXIS P3247-LV/-LVE, AXIS P3247-LVE/-LVE, AXIS P3925-R/-LRE, AXIS P3935-LR, AXIS P5654-E, AXIS P5655-E, AXIS Q1798-LE, AXIS Q6074/-E and AXIS Q6075/-E/-S/-SE

- 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

AXIS OS 9.80.3.5

Release date: 2021-09-07 (to be rolled out within three weeks of release date)

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.
  Applies to: AXIS Companion Cube L/-LW and AXIS M1065-L/-LW

AXIS OS 9.80.3.4

Release date: 2021-06-29

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

Features and corrections

- General improvements to the LTS 2020 platform.

- Products with hardware ID 918, 917, 916, 915 and 914 only support 10.6.5 and later, or 9.80.3.4 and later on LTS 2020. Products with hardware ID 7D9, 7DA, 7B0, 7B1 and 7FA support all AXIS OS versions.
  The hardware ID can be found in **Plain config > Properties > System > HardwareID**.

AXIS OS 9.80.3.3

Release date: 2021-06-28 (to be rolled out within three weeks of release date)

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

Support phase: 2018 – 2023-12-31

AXIS OS 8.40.43

Release date: 2024-03-04

Cybersecurity updates

- Addressed CVE-2024-0054. For more information, please visit the *Axis vulnerability management portal*.

- Addressed CVE-2023-5800. For more information, please visit the *Axis vulnerability management portal*.

- Updated OpenSSL to version 1.1.1x to increase overall cybersecurity level.

- Updated *Apache to version 2.4.58* to increase overall cybersecurity level.

Important

This is the last release on the AXIS OS LTS 2018 track.

- The following products will not receive any further releases as their hardware warranty and software support period has expired:

  AXIS P1405-LE Mk II, AXIS P1425-LE Mk II, AXIS P5514/-E, AXIS P5515/-E, AXIS Q1775/-E, AXIS Q3505-V/-VE/-SVE Mk II, AXIS Q3504-V/-VE, AXIS Q6052/-E, AXIS Q6054/-E and AXIS Q6054/-E Mk II

- The following products will continue to receive releases until their hardware warranty and software support period expires:

  AXIS Companion 360, AXIS M3047-P, AXIS M3048-P, AXIS M5525-E, AXIS P3904-R Mk II, AXIS P3905-R Mk II, AXIS P3915-R Mk II, AXIS P5624-E Mk II, AXIS P5635-E Mk II, AXIS Q6054/-E Mk III, AXIS Q6055/-C, AXIS Q6124-E, AXIS Q6154-E, AXIS Q6155-E, AXIS Q8685-E/-LE and ExCam XPT Q6055

AXIS OS 8.40.37

Release date: 2023–11–01

Cybersecurity updates

- Updated *cURL to version 8.4.0* to increase overall cybersecurity level.

Corrections

- Corrected CVE-2023-21418. For more information, please visit the *Axis vulnerability management portal*.

AXIS OS 8.40.35

Release date: 2023–10–09

Cybersecurity updates

- Updated *cURL to version 8.3.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1w to increase the overall cybersecurity level.

Corrections

- Corrected CVE-2023-21415. For more information, please visit the *Axis vulnerability management portal.*

AXIS OS 8.40.31

Release date: 2023-09-05

Cybersecurity updates

- Updated *cURL to version 8.2.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1v to increase the overall cybersecurity level.

Corrections

- Netd Service preserves the static resolver configuration even after a soft restore, safeguarding static DNS/Search domain settings.

AXIS OS 8.40.26

Release date: 2023-06-26

Features

- Improved UPnP compliance by updating the SSDP (Simple Service Discovery Protocol) SERVER header in the standard "OS/version UPnP/1.0 product/version" format and USN (Unique Service Name) field with a UUID in the standard format. This enhances consistency and compatibility.

Cybersecurity updates

- Updated *Apache to version 2.4.57* to increase the overall cybersecurity level.

- Updated *cURL to version 8.1.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1u to increase the overall cybersecurity level.

- Updated libupnp to version 1.14.16, solving a memory leak and improving overall stability.

Corrections

- Corrected an issue with OAK (owner authentication key). It now only produces warnings in the log instead of errors if the device is not able to connect to the internet.

AXIS OS 8.40.19

Release date: 2023-04-26

Features

- Updated *Apache to version 2.4.56* to increase the overall cybersecurity level.

- Updated *cURL to version 8.0.1* to increase overall cybersecurity level.

- Improved the manager client certificates and added support for installing multiple trust certificates and requesting/installing a second client certificate.

AXIS OS 8.40.15

Release date: 2023-03-13

Features

- Updated *Apache to version 2.4.55* to increase the overall cybersecurity level.

- Updated *cURL to version 7.88.1* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1t to increase overall cybersecurity level.

- Receiving ICMP secure redirects from other network hosts are now disabled to increase overall minimum cyber security level.

Corrections

- Corrected an issue affecting some O3C clients, that caused internal authentication requests to fail after a few days of uptime.

- Improved stability of syslog system by addressing a potential memory leak.

- Corrected an issue with the audio transmit function where the response to /axis- cgi/audio/transmit.cgi is returning a '400 Bad Request' error.
  Applies to: All products with audio support

- Corrected an issue with simultaneous PTZ ONVIF requests.
  Applies to: AXIS P5514-E, AXIS P5515, AXIS M5525-E, AXIS P5624-E Mk II, AXIS P5635-E Mk II, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q6052/-E, AXIS Q6054/-E, AXIS Q6054/-E Mk II, AXIS Q6054/-E Mk III, AXIS Q6055/-E/-C/-S, AXIS Q6124-E, AXIS Q6125-LEAXIS Q8641-E, AXIS Q8642-E, D201-S XPT Q6055 and ExCam XPT Q6055

AXIS OS 8.40.8

Release date: 2022-12-12

Features

- New versioning on AXIS OS LTS 2018. For more information, see *AXIS OS versioning*.

- Updated OpenSSL to version 1.1.1s to increase the overall cybersecurity level.

- Updated cURL to version 7.86.0 to increase overall cybersecurity level.

Corrections

- Corrected an issue that caused a wrong file size to be reported for recordings larger than 50MB when using FTP.

- Corrected an issue that prevented streaming in always-multicast mode when the device was started without network connection.

- Corrected an issue in the bootloader that prevented upgrade to AXIS OS LTS 2020 - 9.80.
  Applies to: AXIS P1435-E/-LE, AXIS P3904-R Mk II and AXIS P3905-R Mk II

- Increase the number of audio files for pre-configured sounds from 10 to 50.
  Applies to: AXIS M5525-E

AXIS OS 8.40.4.7

Release date: 2022-10-18

Features and corrections

- Updated cURL to version 7.85.0 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1q to increase the overall cybersecurity.

Corrections

- General improvements to the LTS-2018 platform.

- Corrected an issue that caused audio via external VMS to stop working.

- Improved wide zoom (optical zoom 1x) Autofocus quality during night time conditions.
  Applies to: AXIS Q6155-E and AXIS Q6154-E

AXIS OS 8.40.4.6

Release date: 2022-07-21

Features

- Updated Apache web server to version 2.4.54 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1p to increase overall cybersecurity level.

- Updated cURL to version 7.83.1 to increase overall cybersecurity level.

Corrections

- Corrected an issue where the time tooltip was not displaying the correct date after passing midnight. Also, the date in the recordings list and the export was sometimes 1 day off.

- Corrected an issue where 802.1X would not trust the intermediate certificate authority (CA).

- Corrected an issue that caused time-out while reading boot block parameters.

AXIS OS 8.40.4.5

Release date: 2022-05-18 (to be rolled out within 3 weeks of release date)

Features

- Updated Apache to version 2.4.53 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1o to increase the overall cybersecurity level.

- Updated wpa-supplicant to version 2.10 to increase overall minimum cybersecurity level.

Corrections

- General improvements to the LTS 2018 platform.

- Receiving ICMP redirects from other network hosts is now disabled to increase overall minimum cybersecurity level.

- Improved memory management in the network services daemon.

- Corrected an issue that caused the send images event to stop uploading towards a FTP server when the filename included a space (" ").

- Corrected *CVE-2018-25032*.

AXIS OS 8.40.4.4

Release date: 2022-01-24 (to be rolled out within 3 weeks of release date)

Features

- Updated Apache to version 2.4.52 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1m to increase overall cybersecurity level.

- Updated cURL to version 7.79.1 to increase overall cybersecurity level.

Corretions

- The remote syslog configuration is now preserved during a AXIS OS update within the same track.

- Improved handling of empty recordings.

- Corrected an issue that prevented AXIS OS upgrade from LTS 2016 (6.50).

- Corrected *CVE-2021-3658*.
  <u>Applies to</u>: AXIS Companion Cube LW, AXIS M1045-LW, AXIS M1065-LW, AXIS M3044-WV and AXIS M3045-W

- Improved stability of the imaging processing to prevent crashes in some darkness conditions.
  <u>Applies to</u>: AXIS Companion Dome V

- Corrected an issue that could cause 'transmit.cgi' to close connection prematurely when transmitting audio to the camera.
  <u>Applies to</u>: AXIS Companion Cube L/-LW, AXIS FA54, AXIS M1065-L/-LW, AXIS P1364/-E, AXIS P1365/-E Mk II, AXIS P1367/-E, AXIS P1368-E, AXIS P1445-LE, AXIS P1445-LE-3, AXIS P1447-LE, AXIS P1448-LE, AXIS P3235-LV/-LVE, AXIS P3374-V/-LV, AXIS P3375-V/-VE/-LV/-LVE, AXIS Q1615/-E Mk II, AXIS Q1645/-LE, AXIS Q1647/-LE, AXIS Q1659, AXIS Q1785-LE, AXIS Q1786-LE, AXIS Q1941-E, AXIS Q1942-E, AXIS Q3515-LV/-LVE, AXIS Q3517-LV/-LVE/-SLVE, AXIS Q3518-LVE, ExCam XF Q1645 and XP40-Q1942

AXIS OS 8.40.4.3

Release date: 2021-10-04 (to be rolled out within 3 weeks of release date)

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.
  Applies to: AXIS M3045-V

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

- Improved stability in recording management.
  Applies to: 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

Release date: 2021-04-19 (to be rolled out within 3 weeks of release date)

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.
  Applies to: 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.
  Applies to: 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.
  Applies to: 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.
  Applies to: 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

Release date: 2020-11-16 (to be rolled out within 3 weeks of release date)

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

AXIS OS 6.50

Go to *Products on AXIS OS 6.50 on page 86* for a list of products that will continue to receive updates.
The list will be modified over time as the expiry date of the products varies, and it is only valid for the latest release.
Although supported products are planned to receive updates twice a year, they will receive security patches whenever it is deemed necessary.

AXIS OS 6.50.5.17

Release date: 2024-03-19

Cybersecurity updates

- Updated *cURL to version 8.6.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1x to increase overall cybersecurity level.

AXIS OS 6.50.5.16

Release date: 2024-01-29

Cybersecurity updates

- Updated Apache to version 2.4.58 to increase the overall cybersecurity level.

Corrections

- Netd Service now preserves the static resolver configuration even after a soft reset, protecting static DNS/Search domain settings.

AXIS OS 6.50.5.15

Release date: 2023-11-08

Cybersecurity updates

- Updated *cURL to version 8.4.0* to increase overall cybersecurity level.

- Addressed CVE-2023-21418. For more information, please visit the *Axis vulnerability management portal*.

AXIS OS 6.50.5.14

Release date: 2023-10-19

Cybersecurity updates

- Updated *cURL to version 8.3.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1w to increase the overall cybersecurity level.

Corrections

- Corrected CVE-2023-21415. For more information, please visit the *Axis vulnerability management portal*.

AXIS OS 6.50.5.13

Release date: 2023-08-28

AXIS OS 6.50

Cybersecurity updates

- Updated *cURL to version 8.2.0* to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1v to increase the overall cybersecurity level.

Corrections

- Resolved an issue where the respawn daemon incorrectly managed restarts for ACAP services, notably in situations with multiple acaps running simultaneously.

AXIS OS 6.50.5.12

Release date: 2023-08-02

Features

- General improvements to the platform.

Cybersecurity updates

- Added proxy configuration support to the Owner Authentication Key (OAK) cgi using group root.RemoteService, simplifying setup on networks requiring proxy servers for Internet access and improving the authentication process.

- Updated *Apache to version 2.4.57* to increase the overall cybersecurity level.

- Updated OpenSSL to version 1.1.1u to increase the overall cybersecurity level.

AXIS OS 6.50.5.11

Release date: 2023-05-29

Features

- Updated *Apache to version 2.4.56* to increase the overall cybersecurity level.

- Updated *cURL to version 8.0.1* to increase overall cybersecurity level.

- Added support for a second client certificate.

AXIS OS 6.50.5.10

Release date: 2023-04-04

Features

- Updated *Apache to version 2.4.55* to increase the overall cybersecurity level.

- Updated OpenSSL to version 1.1.1t to increase overall cybersecurity level.

- Updated *cURL to version 7.88.1* to increase overall cybersecurity level.

Corrections

- Corrected an issue affecting some O3C clients, that caused internal authentication requests to fail after a few days of uptime.

AXIS OS 6.50.5.8

Release date: 2023-02-09

AXIS OS Release Notes

AXIS OS 6.50

Corrections

- Disabled secure redirects from other network hosts net.ipv4.conf.all.secure_redirects & net.ipv4.conf.default.secure_redirects, to increase overall minimum cybersecurity level.

- Corrected a restart issue caused by tilting the PTZ camera to 90 degrees. The issue was introduced in version 6.50.5.5 and 6.50.5.6.
  Applies to: AXIS Q6128-E

- Corrected an issue with the audio transmit function where the response to /axis- cgi/audio/transmit.cgi is returning a '400 Bad Request' error.
  Applies to: All products with audio support

Important

This is the last release on the AXIS OS LTS 2016 track.

The following product will continue to receive releases until the hardware warranty and software maintenance period has expired: AXIS F34, AXIS F41, AXIS F44 Dual audio input, AXIS M1145/-L, AXIS M3026-VE, AXIS M3027-PVE, AXIS M7011, AXIS P1427-E/-LE, AXIS P3353, AXIS P3354, AXIS P3363-V/-VE, AXIS P3364-V/-VE/-LV/-LVE, AXIS P3365-V/-VE, AXIS P3367-V/-VE, AXIS P3384-V/-VE, AXIS P3707-PE, AXIS P3904-R, AXIS P3905-R/-RE, AXIS P3915-R, AXIS P5414-E, AXIS P5415-E, AXIS P7224, AXIS P8535, AXIS P8804, AXIS P8804-2, AXIS Q1615/-E, AXIS Q1635/-E, AXIS Q1765-LE PT Mount, AXIS Q1765-LE, AXIS Q2901-E PT Mount, AXIS Q2901-E, AXIS Q6000-E/ MK II, AXIS Q6114-E, AXIS Q6115-E, AXIS Q6128-E, AXIS Q7411, AXIS Q7436, AXIS Q8414-LV, AXIS Q8665-E/-LE, XF40-Q1765, XF40-Q2901, XF60-Q1765, XF60-Q2901 and XP40-Q1765

The following products have later LTS tracks. Please upgrade to the latest version to increase cybersecurity: AXIS M1124/-E, AXIS M1125/-E, AXIS P1364/-E, AXIS P1365/-E Mk II, AXIS P1435-E/-LE, AXIS P3904-R Mk II, AXIS P3905-R Mk II, AXIS P3915-R Mk II, AXIS P5514/-E, AXIS P5515/-E, AXIS P5624-E Mk II, AXIS P5635-E Mk II, AXIS Q1775/-E, AXIS Q6052/-E, AXIS Q6054/-E, AXIS Q6055/-E, AXIS Q6155-E, D201-S XPT Q6055 and ExCam XPT Q6055

The following products will not receive any more releases since the hardware warranty and software maintenance period has expired: AXIS F44 Main unit, AXIS M3006-V, AXIS M3007-P/-PV, AXIS P1354/-E, AXIS P1353/-E, AXIS P1357/-E, AXIS P1365/-E, AXIS P1405-E/-LE, AXIS P1425-E/-LE, AXIS P3214-V/-VE, AXIS P3215-V/-VE, AXIS P3224-LV/-LVE, AXIS P3225-LV/-LVE, AXIS P5624-E, AXIS P5635-E, AXIS Q1604/-E, AXIS Q1614/-E, AXIS Q1931-E, AXIS Q1931-E PT Mount, AXIS Q1932-E, AXIS Q1932-E PT Mount, AXIS Q3505-V/-VE, AXIS Q6042/-E/-C/-S, AXIS Q6044/-E/-C/-S, AXIS Q6045/-E/-C/-S Mk II, AXIS Q8631-E and AXIS Q8632-E

AXIS OS 6.50.5.7

Release date: 2022-12-19

Features and corrections

- Updated Apache to version 2.4.54 to increase overall cybersecurity level.

- Updated OpenSSL to version 1.1.1s to increase the overall cybersecurity level.

- Updated cURL to version 7.86.0 to increase overall cybersecurity level.

- Corrected an issue that caused audio via external VMS to stop working.

- Corrected an issue that caused the wrong file size to be reported for recordings larger than 50MB when using FTP.

- Corrected an issue where 802.1X would not trust the intermediate certificate authority (CA).

AXIS OS 6.50.5.6

Release date: 2022-05-11 (to be rolled out within three weeks of release date)

Features

- Updated OpenSSL to version 1.1.1o to increase overall cybersecurity level.

- Updated Apache to version 2.4.53 to increase overall cybersecurity level.

- Updated cURL to version 7.79.1 to increase overall cybersecurity level.

- Updated wpa-supplicant to version 2.10 to increase overall minimum cybersecurity level.

Corrections

- General improvements to the LTS 2016 platform.

- Receiving ICMP redirects from other network hosts is now disabled to increase overall minimum cybersecurity level.

- Improved handling of empty recordings.

- Corrected an issue with uploading RSA certificate with PKCS#8 formatted private keys.

- Corrected an issue that caused the send images event to stop uploading towards an FTP server when the filename included a space (" ").

- Corrected an issue with file permission when using disk encryption

- Corrected an issue that caused ONVIF AbsoluteMove commands to return a 500 Internal Server Error.

- Corrected *CVE-2021-29462*.

- Corrected *CVE-2020-13848*.

- Corrected *CVE-2019-15916*.

AXIS OS 6.50.5.5

Release date: 2021-10-25 (to be rolled out within three weeks of release date)

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

Release date: 2021-05-17 (to be rolled out within three weeks of release date)

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

Release date: 2020-11-09 (to be rolled out within three weeks of release date)

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

Product groups

System-on-chip (SoC)

Features or corrections are sometimes applied to a group of products based on the system-on-chip (SoC). These groups are listed below and are sometimes referenced in the release notes.

For more information, visit *System-on-chip* .

AXIS ARTPEC-8

• AXIS D2210-VE • AXIS M3215 • AXIS M3216 • AXIS M4317-PLVE • AXIS M4318-PLVE • AXIS M4327-P • AXIS M4328-P • AXIS M5526-E • AXIS P1385/-B • AXIS P1387/-B • AXIS P1388/-B • AXIS P1465-LE • AXIS P1465-LE-3 • AXIS P1467-LE	• AXIS P1468-LE • AXIS P1468-XLE • AXIS P3265-V/-LV/-LVE • AXIS P3267-LV/-LVE/-LVE Mic • AXIS P3268-LV/-LVE/-SLVE • AXIS P3735-PLE • AXIS P3737-PLE • AXIS P3738-PLE • AXIS P3827-PVE • AXIS P4705-PLVE • AXIS P4707-PLVE • AXIS P9117-PV • AXIS Q9307-LV	• AXIS Q1656/-B/-BE/-BLE/-DLE/-LE • AXIS Q1805-LE • AXIS Q1806-LE • AXIS Q1961-TE/-XTE • AXIS Q2101-TE • AXIS Q3536-LVE • AXIS Q3538-LVE • AXIS Q3626-VE • AXIS Q3628-VE • AXIS XFQ1656

AXIS ARTPEC-7

• AXIS D2110-VE • AXIS F9104-B Main Unit • AXIS F9111 Main Unit • AXIS F9114 Main Unit • AXIS F9114-B Main Unit • 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 M5000/-G • AXIS M5074 • AXIS M5075/-G • 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 P3727-PLE • AXIS P3818-PVE • AXIS P3925-R/-LRE • AXIS P3935-LR • AXIS P5654-E • AXIS P5654-E Mk II • AXIS P5655-E • AXIS P5676-LE • AXIS P7304 • AXIS P7316	• AXIS Q1615-/LE Mk III • AXIS Q1715 • 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 Q6225-LE • AXIS Q6315-LE • AXIS Q6318-LE • AXIS Q8615-E • AXIS Q8752-E • AXIS V5925 • AXIS V5938 • D201-S XPT Q6075 • ExCam XPT Q6075 • ExCam XF P1377 • F101-AXF P1377

Product groups

AXIS ARTPEC-6

• AXIS A8207-VE	• AXIS P3227-LV/-LVE	• AXIS Q3515-LV/-LVE
• AXIS A8207-VE Mk II	• AXIS P3228-LV/-LVE	• AXIS Q3517-LV/-LVE/-SLVE
• AXIS D2050-VE	• AXIS P3715-PLVE	• AXIS Q3518-LVE
• AXIS FA54	• AXIS P3717-PLE	• AXIS Q3527-LVE
• AXIS M3057-PLVE	• AXIS P3807-PVE	• AXIS Q6215-LE
• AXIS M3058-PLVE	• AXIS P8815-2	• AXIS XPQ1785
• AXIS P1367/-E	• AXIS Q1645/-LE	• D101-A XF P3807
• AXIS P1368-E	• AXIS Q1647/-LE	• ExCam XF P1367
• AXIS P1445-LE	• AXIS Q1659	• ExCam XF Q1645
• AXIS P1445-LE-3	• AXIS Q1700-LE	• ExCam XF Q1785
• AXIS P1447-LE	• AXIS Q1785-LE	• F101-A XF P1367
• AXIS P1448-LE	• AXIS Q1786-LE	• F101-A XF Q1785
		• XP40–Q1785

Ambarella CV25

• AXIS I8116-E	• AXIS M2036-LE	• AXIS M4215-LV/-V
• AXIS M1055-L	• AXIS M3085-V	• AXIS M4218-LV/-V
• AXIS M1075-L	• AXIS M3086-V/-V Mic	• AXIS M4216-LV/-V
• AXIS M2035-LE	• AXIS M3088-V	

Ambarella S5

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

Ambarella S5L

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

Ambarella S6L

- AXIS M3905-R
- AXIS P3905-R Mk III

I.MX 6SX

• AXIS C1210-E	• AXIS C1610-VE
• AXIS C1211-E	• AXIS C8110
• AXIS C1510	• AXIS C8210
• AXIS C1511	

I.MX 6ULL

- AXIS C1310-E
- AXIS C1410
- AXIS D3110
- AXIS D4100-E

I.MX 8M

- AXIS C1110-E
- AXIS C1111-E

I.MX 8Q

- AXIS D1110
- AXIS S3008
- AXIS S3008 Mk II
- AXIS S3016

Products per track

The product groups below are based on the active track and the available LTS tracks.

Products on the active track – AXIS OS 11

• AXIS A8207-VE • AXIS A8207-VE Mk II • AXIS C1110-E • AXIS C1111-E • AXIS C1210-E • AXIS C1211-E • AXIS C1310-E • AXIS C1410 • AXIS C1510 • AXIS C1511 • AXIS C1610-VE • AXIS C8110 • AXIS C8210 • AXIS D1110 • AXIS D2110-VE • AXIS D2210-VE • AXIS D3110 • AXIS D4100-E • AXIS FA51/-B • AXIS FA54 • AXIS F9104-B Main Unit • AXIS F9111 Main Unit • AXIS F9114 Main Unit • AXIS F9114-B Main Unit • AXIS I8016-LVE • AXIS I8116-E • AXIS M1055-L • AXIS M1075-L • AXIS M1135/-E Mk II • AXIS M1137/-E Mk II • AXIS M2035-LE • AXIS M2036-LE • AXIS M3057-PLVE Mk II • AXIS M3057-PLR Mk II • AXIS M3067-P • AXIS M3068-P • AXIS M3077-PLVE • AXIS M3085-V • AXIS M3086-V/-V Mic • AXIS M3088-V • AXIS M3215-LVE	• AXIS M7104 • AXIS M7116 • AXIS P1375/-E • AXIS P1377/-LE • AXIS P1378/-LE • AXIS P1385/-B • AXIS P1387/-B • AXIS P1388/-B • AXIS P1445-LE • AXIS P1445-LE-3 • AXIS P1447-LE • AXIS P1448-LE • AXIS P1448-XLE • AXIS P1455-LE • AXIS P1455-LE-3 • AXIS P1465-LE • AXIS P1465-LE-3 • AXIS P1467-LE • AXIS P1468-LE • AXIS M3215 • AXIS M3216 • 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 P3265-V/-LV/-LVE • AXIS P3267-LV/-LVE/-LVE Mic • AXIS P3268-LV/-LVE/-SLVE • AXIS P3715-PLVE • AXIS P3717-PLE • AXIS P3719-PLE • AXIS P3727-PLE • AXIS P3735-PLE • AXIS P3737-PLE • AXIS P3738-PLE • AXIS P3807-PVE • AXIS P3818-PVE	• AXIS Q1645/-LE • AXIS Q1647/-LE • AXIS Q1656/-B/-BE/-BLE/-DLE/-LE • AXIS Q1659 • AXIS Q1700-LE • AXIS Q1715 • AXIS Q1785-LE • AXIS Q1786-LE • AXIS Q1798-LE • AXIS Q1805-LE • AXIS Q1806-LE • AXIS Q1951-E • AXIS Q1961-TE/-XTE • AXIS Q2101-TE • AXIS Q3515-LV/-LVE • AXIS Q3517-LV/-LVE/-SLVE • AXIS Q3518-LVE • AXIS Q3527-LVE • AXIS Q3536-LVE • AXIS Q3538-LVE/-SLVE • AXIS Q3626-VE • AXIS Q3628-VE • AXIS Q3819-PVE • AXIS Q6010-E • AXIS Q6074/-E • AXIS Q6075/-E/-S/-SE • AXIS Q6078-E • AXIS Q6100-E • AXIS Q6135-LE • AXIS Q6215-LE • AXIS Q6225-LE • AXIS Q6315-LE • AXIS Q6318-LE • AXIS Q8615-E • AXIS Q8752-E • AXIS Q9216-SLV • AXIS Q9307-LV • AXIS S3008 • AXIS S3008 Mk II • AXIS S3016

Product groups

- AXIS M3216-LVE
- AXIS M3905-R
- AXIS M4215-LV/-V
- AXIS M4216-LV/-V
- AXIS M4218-LV/-V
- AXIS M4308-PLE
- AXIS M4317-PLVE
- AXIS M4318-PLVE
- AXIS M4327-P
- AXIS M4328-P
- AXIS M5000/-G
- AXIS M5074
- AXIS M5075/-G
- AXIS M5526-E

- AXIS P3827-PVE
- AXIS P3905-R Mk III
- AXIS P3925-R/-LRE
- AXIS P3935-LR
- AXIS P4705-PLVE
- AXIS P4707-PLVE
- AXIS P5654-E
- AXIS P5654-E MK II
- AXIS P5655-E
- AXIS P5676-LE
- AXIS P7304
- AXIS P7316
- AXIS P8815-2
- AXIS P9117-PV
- AXIS Q1615/-LE Mk III

- AXIS V5925
- AXIS V5938
- AXIS XPQ1785
- AXIS XFQ1656
- D101-A XF P3807
- D201-S XPT Q6075
- ExCam XF P1377
- ExCam XF Q1645
- ExCam XF Q1785
- ExCam XPT Q6075
- F101-A XF P1377
- F101-A XF Q1785
- XF40-Q1785
- XP40-Q1785

Products on next active track – AXIS OS 12

Note

The product list is subject to change. AXIS OS 12 will not be available until August/September 2024.

- AXIS A8207-VE Mk II
- AXIS C1110-E
- AXIS C1111-E
- AXIS C1210-E
- AXIS C1211-E
- AXIS C1310-E
- AXIS C1510
- AXIS C1511
- AXIS C1610-VE
- AXIS C8110
- AXIS C8210
- AXIS D1110
- AXIS D2110-VE
- AXIS D2210-VE
- AXIS FA51/-B
- AXIS FA54
- AXIS F9104-B Main Unit
- AXIS F9111 Main Unit
- AXIS F9114 Main Unit
- AXIS F9114-B Main Unit
- AXIS I8016-LVE
- AXIS I8116-E
- AXIS M1055-L
- AXIS M1075-L
- AXIS M1135/-E Mk II
- AXIS M1137/-E Mk II
- AXIS M2035-LE
- AXIS M2036-LE
- AXIS M3057-PLR Mk II
- AXIS M3085-V
- AXIS M3086-V/-V Mic
- AXIS M3088-V
- AXIS M3215-LVE
- AXIS M3216-LVE
- AXIS M3905-R
- AXIS M4215-LV/-V
- AXIS M4216-LV/-V
- AXIS M4218-LV/-V
- AXIS M4308-PLE

- AXIS M4318-PLVE
- AXIS M4327-P
- AXIS M4328-P
- AXIS M5000/-G
- AXIS M5074
- AXIS M5075/-G
- AXIS M5526-E
- AXIS M7104
- AXIS M7116
- AXIS P1375/-E
- AXIS P1377/-LE
- AXIS P1378/-LE
- AXIS P1385/-B
- AXIS P1387/-B
- AXIS P1388/-B
- AXIS P1448-XLE
- AXIS P1465-LE
- AXIS P1465-LE-3
- AXIS P1467-LE
- AXIS P1468-LE
- AXIS M3215
- AXIS M3216
- AXIS P3265-V/-LV/-LVE
- AXIS P3267-LV/-LVE/-LVE Mic
- AXIS P3268-LV/-LVE/-SLVE
- AXIS P3735-PLE
- AXIS P3737-PLE
- AXIS P3738-PLE
- AXIS P3807-PVE
- AXIS P3818-PVE
- AXIS P3827-PVE
- AXIS P3905-R Mk III
- AXIS P3925-R/-LRE
- AXIS P3935-LR
- AXIS P4705-PLVE
- AXIS P4707-PLVE
- AXIS P5654-E
- AXIS P5654-E MK II

- AXIS P7304
- AXIS P7316
- AXIS P8815-2
- AXIS P9117-PV
- AXIS Q1615/-LE Mk III
- AXIS Q1656/-B/-BE/-BLE/-DLE/-LE
- AXIS Q1715
- AXIS Q1798-LE
- AXIS Q1805-LE
- AXIS Q1806-LE
- AXIS Q1951-E
- AXIS Q1961-TE/-XTE
- AXIS Q2101-TE
- AXIS Q3536-LVE
- AXIS Q3538-LVE/-SLVE
- AXIS Q3626-VE
- AXIS Q3628-VE
- AXIS Q3819-PVE
- AXIS Q6074/-E
- AXIS Q6075/-E/-S/-SE
- AXIS Q6078-E
- AXIS Q6135-LE
- AXIS Q6225-LE
- AXIS Q6315-LE
- AXIS Q6318-LE
- AXIS Q8615-E
- AXIS Q8752-E
- AXIS Q9307-LV
- AXIS S3008
- AXIS S3008 Mk II
- AXIS S3016
- AXIS V5925
- AXIS V5938
- AXIS XPQ1785
- AXIS XFQ1656
- D201-S XPT Q6075
- ExCam XF Q1785
- ExCam XPT Q6075

Product groups

• AXIS M4317-PLVE	• AXIS P5655-E • AXIS P5676-LE	• XF40-Q1785

Products on LTS 2024 – 11.11

Note

The product list is subject to change. LTS 2024 will not be available until August/September 2024.

• AXIS A8207-VE • AXIS A8207-VE Mk II • AXIS C1110-E • AXIS C1111-E • AXIS C1210-E • AXIS C1211-E • AXIS C1310-E • AXIS C1410 • AXIS C1510 • AXIS C1511 • AXIS C1610-VE • AXIS C8110 • AXIS C8210 • AXIS D1110 • AXIS D2110-VE • AXIS D2210-VE • AXIS D3110 • AXIS D4100-E • AXIS FA51/-B • AXIS FA54 • AXIS F9104–B Main Unit • AXIS F9111 Main Unit • AXIS F9114 Main Unit • AXIS F9114-B Main Unit • AXIS I8016-LVE • AXIS I8116-E • AXIS M1055-L • AXIS M1075-L • AXIS M1135/-E Mk II • AXIS M1137/-E Mk II • AXIS M2035-LE • AXIS M2036-LE • AXIS M3057-PLVE Mk II • AXIS M3057-PLR Mk II • AXIS M3067-P • AXIS M3068-P • AXIS M3077-PLVE • AXIS M3085-V • AXIS M3086-V/-V Mic • AXIS M3088-V • AXIS M3215-LVE • AXIS M3216-LVE • AXIS M3905-R • AXIS M4215-LV/-V • AXIS M4216-LV/-V • AXIS M4218-LV/-V • AXIS M4308-PLE • AXIS M4317-PLVE • AXIS M4318-PLVE • AXIS M4327-P • AXIS M4328-P • AXIS M5000/-G	• AXIS M5526-E • AXIS M7104 • AXIS M7116 • AXIS P1375/-E • AXIS P1377/-LE • AXIS P1378/-LE • AXIS P1385/-B • AXIS P1387/-B • AXIS P1388/-B • AXIS P1445-LE • AXIS P1445-LE-3 • AXIS P1447-LE • AXIS P1448-LE • AXIS P1448-XLE • AXIS P1455-LE • AXIS P1455-LE-3 • AXIS P1465-LE • AXIS P1465-LE-3 • AXIS P1467-LE • AXIS P1468-LE • AXIS M3215 • AXIS M3216 • 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 P3265-V/-LV/-LVE • AXIS P3267-LV/-LVE/-LVE Mic • AXIS P3268-LV/-LVE/-SLVE • AXIS P3715-PLVE • AXIS P3717-PLE • AXIS P3719-PLE • AXIS P3727-PLE • AXIS P3735-PLE • AXIS P3737-PLE • AXIS P3738-PLE • AXIS P3807-PVE • AXIS P3818-PVE • AXIS P3827-PVE • AXIS P3905-R Mk III • AXIS P3925-R/-LRE • AXIS P3935-LR • AXIS P4705-PLVE • AXIS P4707-PLVE • AXIS P5654-E • AXIS P5654-E MK II • AXIS P5655-E • AXIS P5676-LE	• AXIS Q1615/-LE Mk III • AXIS Q1645/-LE • AXIS Q1647/-LE • AXIS Q1656/-B/-BE/-BLE/-DLE/-LE • AXIS Q1659 • AXIS Q1700-LE • AXIS Q1715 • AXIS Q1785-LE • AXIS Q1786-LE • AXIS Q1798-LE • AXIS Q1805-LE • AXIS Q1806-LE • AXIS Q1951-E • AXIS Q1961-TE/-XTE • AXIS Q2101-TE • AXIS Q3515-LV/-LVE • AXIS Q3517-LV/-LVE/-SLVE • AXIS Q3518-LVE • AXIS Q3527-LVE • AXIS Q3536-LVE • AXIS Q3538-LVE/-SLVE • AXIS Q3626-VE • AXIS Q3628-VE • AXIS Q3819-PVE • AXIS Q6010-E • AXIS Q6074/-E • AXIS Q6075/-E/-S/-SE • AXIS Q6078-E • AXIS Q6100-E • AXIS Q6135-LE • AXIS Q6215-LE • AXIS Q6225-LE • AXIS Q6315-LE • AXIS Q6318-LE • AXIS Q8615-E • AXIS Q8752-E • AXIS Q9216-SLV • AXIS Q9307-LV • AXIS S3008 • AXIS S3008 Mk II • AXIS S3016 • AXIS V5925 • AXIS V5938 • AXIS XPQ1785 • AXIS XFQ1656 • D101–A XF3807 • D201–S XPT Q6075 • ExCam XF P1377 • ExCam XF Q1645 • ExCam XF Q1785 • ExCam XPT Q6075

Product groups

• AXIS M5074 • AXIS M5075/-G	• AXIS P7304 • AXIS P7316 • AXIS P8815-2 • AXIS P9117-PV	• F101-A XF P1377 • F101-A XF Q1785 • XF40-Q1785 • XP40-Q1785

Products on LTS 2022 – 10.12

• AXIS A8207-VE • AXIS A8207-VE Mk II • AXIS D2050-VE • AXIS D2110-VE • AXIS D3110 • AXIS D4100-E • AXIS FA51/-B • AXIS FA54 • AXIS F9104-B Main Unit • AXIS F9111 Main Unit • AXIS F9114 Main Unit • AXIS F9114-B Main Unit • AXIS I8016-LVE • AXIS M1134 • AXIS M1135/-E • AXIS M1135/-E Mk II • AXIS M1137/-E • AXIS M1137/-E Mk II • AXIS M2035-LE • AXIS M2036-LE • AXIS M3057-PLVE • AXIS M3057-PLVE Mk II • AXIS M3058-PLVE • AXIS M3064-V • AXIS M3065-V • AXIS M3066-V • AXIS M3067-P • AXIS M3068-P • AXIS M3075-V • AXIS M3077-PLVE • AXIS M3085-V • AXIS M3086-V • AXIS M3088-V • AXIS M3115-LVE • AXIS M3116-LVE • AXIS M3205-LVE • AXIS M3206-LVE • AXIS M3215-LVE • AXIS M3216-LVE • AXIS M4216-LV • AXIS M4216-V • AXIS M4308-PLE • AXIS M5000/-G	• AXIS M5074 • AXIS M5075/-G • AXIS M7104 • AXIS M7116 • AXIS P1367/-E • AXIS P1368-E • AXIS P1375/-E • AXIS P1377/-LE • AXIS P1378/-LE • AXIS P1445-LE • AXIS P1445-LE-3 • AXIS P1447-LE • AXIS P1448-LE • AXIS P1455-LE • AXIS P1455-LE-3 • AXIS P1467-LE • AXIS P1468-LE • 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 P3265-V/-LV/-LVE • AXIS P3267-LV/-LVE • AXIS P3268-LV/-LVE • AXIS P3715-PLVE • AXIS P3717-PLE • AXIS P3719-PLE • AXIS P3727-PLE • AXIS P3807-PVE • AXIS P3818-PVE • AXIS P3925-R/-LRE • AXIS P3935-LR • AXIS P5654-E • AXIS P5655-E • AXIS P7304 • AXIS P7316 • AXIS P8815-2 • AXIS Q1615/-LE Mk III • AXIS Q1645/-LE • AXIS Q1647/-LE	• AXIS Q1656/-LE/-B/-BE/-BLE • AXIS Q1659 • AXIS Q1700-LE • AXIS Q1715 • AXIS Q1785-LE • AXIS Q1786-LE • AXIS Q1798-LE • AXIS Q1951-E • AXIS Q1952-E • AXIS Q3515-LV/-LVE • AXIS Q3517-LV/-LVE/-SLVE • AXIS Q3518-LVE • AXIS Q3527-LVE • AXIS Q3536-LVE • AXIS Q3538-LVE • AXIS Q3819-PVE • AXIS Q6010-E • AXIS Q6074/-E • AXIS Q6075/-E/-S/-SE • AXIS Q6078-E • AXIS Q6100-E • AXIS Q6135-LE • AXIS Q6215-LE • AXIS Q6225-LE • AXIS Q6315-LE • AXIS Q6318-LE • AXIS Q8752-E • AXIS Q9216-SLV • AXIS S3008 • AXIS V5925 • AXIS V5938 • D101-A XF P3807 • D201-S XPT Q6075 • ExCam XF P1367 • ExCam XF P1377 • ExCam XF Q1645 • ExCam XF Q1785 • ExCam XPT Q6075 • F101-A XF P1367 • F101-A XF P1377 • F101-A XF Q1785 • XF40-Q1785 • XP40-Q1785

Product groups

Products on LTS 2020 – 9.80

• AXIS Companion Bullet LE • AXIS Companion Bullet mini LE • AXIS Companion Cube L/-LW • AXIS Companion Dome mini LE • AXIS Companion Dome V/-WV • AXIS Companion Eye L/-LVE • AXIS Companion Eye mini L • AXIS Companion Recorder • AXIS D2050-VE • AXIS FA54 • AXIS M1045-LW • AXIS M1065-L/-LW • AXIS M1124/-E • AXIS M1125/-E • AXIS M1134 • AXIS M1135/-E • AXIS M1137/-E • AXIS M2025-LE • AXIS M2026-LE • AXIS M2026-LE Mk II • AXIS M3015 • AXIS M3016 • AXIS M3044-V/-WV • AXIS M3045-V/-WV • AXIS M3046-V • AXIS M3057-PLVE • AXIS M3058-PLVE • AXIS M3064-V • AXIS M3065-V • AXIS M3066-V • AXIS M3067-P • AXIS M3068-P • AXIS M3075-V • AXIS M3104-L/-LVE • AXIS M3105-L/-LVE • AXIS M3106-L/-LVE • AXIS M3106-L/-LVE Mk II • AXIS M3115-LVE	• AXIS M3116-LVE • AXIS M3205-LVE • AXIS M3206-LVE • AXIS M4206-V/-LV • 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 P1367/-E • AXIS P1368-E • AXIS P1375/-E • AXIS P1377/-LE • AXIS P1378/-LE • AXIS P1435-E/-LE • AXIS P1445-LE • AXIS P1445-LE-3 • AXIS P1447-LE • AXIS P1448-LE • AXIS P3224-V/-VE/-LV/-LVE Mk II • AXIS P3225-V/-VE/-LV/-LVE Mk II • AXIS P3227-LV/-LVE • AXIS P3228-LV/-LVE • AXIS P3235-LV/-LVE • AXIS P3245-V/-VE/-LV/-LVE • AXIS P3247-LV/-LVE • AXIS P3248-LV/-LVE • AXIS P3374-V/-LV • AXIS P3375-V/-VE/-LV/-LVE • AXIS P3717-PLE • AXIS P3719-PLE • AXIS P3807-PVE • AXIS P3925-R/-LRE	• AXIS P3935-LR • AXIS P5655-E • AXIS P9106-V • AXIS Q1615/-E Mk II • AXIS Q1645/-LE • AXIS Q1647/-LE • AXIS Q1659 • AXIS Q1700-LE • AXIS Q1785-LE • AXIS Q1786-LE • AXIS Q1798-LE • AXIS Q1941-E • AXIS Q1941-E PT Mount • AXIS Q1942-E • AXIS Q1942-E PT Mount • AXIS Q3515-LV/-LVE • AXIS Q3517-LV/-LVE/-SLVE • AXIS Q3518-LVE • AXIS Q3527-LVE • AXIS Q3615-VE • AXIS Q3617-VE • AXIS Q6010-E • AXIS Q6074/-E • AXIS Q6075/-E/-S • AXIS Q6125-LE • AXIS Q6215-LE • AXIS Q8641-E • AXIS Q8642-E • AXIS Q9216-SLV • D101 XF P3807 • ExCam XF P1367 • ExCam XF Q1645 • ExCam XF Q1785 • F101 XF Q1785 • F101-A XF P1367 • XF40-Q1785 • XP40-Q1785 • XP40-Q1942

Products on LTS 2018 – 8.40

From March 2024, the following products will not receive any more releases since the hardware warranty and software maintenance period have expired.

• AXIS P1405-LE Mk II • AXIS P1425-LE Mk II • AXIS P5514/-E • AXIS P5515/-E	• AXIS Q1775/-E • AXIS Q3505-V/-VE/-SVE Mk II • AXIS Q3504-V/-VE

The following products will continue to receive releases until the hardware warranty and software maintenance period expire.

Product groups

• AXIS Companion 360 • AXIS M3047-P • AXIS M3048-P • AXIS M5525-E • AXIS P3904-R Mk II • AXIS P3905-R Mk II	• AXIS P3915-R Mk II • AXIS P5624-E Mk II • AXIS P5635-E Mk II • AXIS Q6054/-E Mk III • AXIS Q6055/-C	• AXIS Q6124-E • AXIS Q6154-E • AXIS Q6155-E • AXIS Q8685-E/-LE • ExCam XPT Q6055

The following products will have the later LTS tracks. Please upgrade to the latest version to increase the cybersecurity.

• AXIS Companion Bullet LE • AXIS Companion Cube L/-LW • AXIS Companion Dome V/-WV • AXIS Companion Eye L/-LVE • AXIS FA54 • AXIS M1045-LW • AXIS M1065-L/-LW • AXIS M1124/-E • AXIS M1125/-E • AXIS M2025-LE • AXIS M2026-LE • AXIS M2026-LE Mk II • AXIS M3015 • AXIS M3016 • AXIS M3044-V/-WV • AXIS M3045-V/-WV • AXIS M3046-V • AXIS M3057-PLVE • AXIS M3058-PLVE • AXIS M3104-L/-LVE • AXIS M3105-L/-LVE • AXIS M3106-L/-LVE • AXIS M3106-L/-LVE Mk II • 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 P1367/-E • AXIS P1368-E • AXIS P1435-E/-LE • AXIS P1445-LE • AXIS P1445-LE-3 • AXIS P1447-LE • AXIS P1448-LE • AXIS P3224-V/-VE/-LV/-LVE Mk II • AXIS P3225-V/-VE/-LV/-LVE Mk II • AXIS P3227-LV/-LVE • AXIS P3228-LV/-LVE • AXIS P3235-LV/-LVE • AXIS P3374-V/-LV • AXIS P3375-V/-VE/-LV/-LVE • AXIS P9106-V	• AXIS Q1615/-E Mk II • AXIS Q1645/-LE • AXIS Q1647/-LE • AXIS Q1659 • AXIS Q1785-LE • AXIS Q1786-LE • AXIS Q1941-E • AXIS Q1941-E PT Mount • AXIS Q1942-E • AXIS Q1942-E PT Mount • AXIS Q3515-LV/-LVE • AXIS Q3517-LV/-LVE/-SLVE • AXIS Q3518-LVE • AXIS Q3615-VE • AXIS Q3617-VE • AXIS Q6055-E/-S • AXIS Q6125-LE • AXIS Q8641-E • AXIS Q8642-E • D201-S XPT Q6055 • ExCam XF P1367 • ExCam XF Q1645 • F101-A XF P1367

Products on AXIS OS 6.50

The following products will not receive any more releases since the hardware warranty and software maintenance period have expired.

• AXIS F44 Main unit • AXIS M3006-V • AXIS M3007-P/-PV • AXIS P1353/-E • AXIS P1354/-E • AXIS P1357/-E • AXIS P1365/-E • AXIS P1405-E/-LE • AXIS P1425-E/-LE • AXIS P1427-E/-LE • AXIS P1428-E • AXIS M3027-PVE • AXIS P3214-V/-VE • AXIS P3215-V/-VE • AXIS P3224-LV/-LVE	• AXIS P3225-LV/-LVE • AXIS P3353 • AXIS P3354 • AXIS P3363-V/-VE • AXIS P3364-V/-VE/-LV/-LVE • AXIS P3365-V/-VE • AXIS P3384-V/-VE • AXIS P3915-R • AXIS P5624-E • AXIS P5635-E • AXIS P8535 • AXIS P8804 • AXIS P8804-2 • AXIS Q1604/-E • AXIS Q1614/-E	• AXIS Q1615/-E • AXIS Q1635/-E • AXIS Q1931-E • AXIS Q1931-E PT Mount • AXIS Q1932-E • AXIS Q1932-E PT Mount • AXIS Q3505-V/-VE • AXIS Q6114-E • AXIS Q6115-E • AXIS Q6042/-E/-C/-S • AXIS Q6044/-E/-C/-S • AXIS Q6045/-E/-C/-S Mk II • AXIS Q8631-E • AXIS Q8632-E • AXIS Q8665-E/-LE

The following product will continue to receive releases until the hardware warranty and software maintenance period expire.

AXIS OS Release Notes

Product groups

• AXIS F34 • AXIS F41 • AXIS F44 Dual Audio Input • AXIS M1145/-L • AXIS M3026-VE • AXIS M7011 • AXIS P3367-V/-VE • AXIS P3707-PE	• AXIS P3904-R • AXIS P3905-R/-RE • AXIS P5414-E • AXIS P5415-E • AXIS Q1765-LE • AXIS Q1765-LE PT Mount • AXIS Q2901-E • AXIS Q2901-E PT Mount • AXIS Q6000-E	• AXIS Q6000-E Mk II • AXIS Q6128-E • AXIS Q7411 • AXIS Q7436 • AXIS Q8414-LVS • XF40-Q1765 • XF40-Q2901 • XF60-Q1765 • XF60-Q2901 • XP40-Q1765