

Release notes

- 2.0.1 (June 2025)

- **RTSP streams with different codecs could not be streamed**

RTSP streams from cameras using different codecs (h264, h265, and MJPEG) could not be streamed at the same time. Now, RTSP streams from cameras using different codecs are streamed simultaneously.

- **Milestone XProtect Processing Server Admin Plugin**

A *Create AI Bridge role* menu option has been included in the Milestone XProtect Processing Server Admin Plugin. The new *Create AI Bridge role* menu option is accessed from **Management Client > Processing Servers** and enables a system administrator to create a role that, by default contains the least amount of permissions required for Milestone AI Bridge connectivity. The new AI Bridge role is an XProtect role and like all other XProtect roles, can be edited and assigned to other users. A basic user for AI Bridge integration must still be created and assigned to the new AI Bridge role.

- 2.0.0 (March 2025)

- **Breaking change:** The field 'manufacturer id' added in Milestone AI Bridge 1.7.0 which was used for Milestone Installed Integrations Insights has been removed. If you have used the Manufacturer id parameter in your IVA code, you must remove all the references to the parameter.

Note: The manufacturer name parameter is still present and is still used to contain the name of the IVA manufacturer.

- **Breaking change:** Analytics events created by Milestone AI Bridge in the Milestone XProtect VMS will follow a new format: **app-name / event-name**.

The new naming format will help Milestone XProtect users identify analytics events across the Milestone XProtect VMS. As a result of this naming change, you must update your Milestone XProtect Processing Server Admin Plugin to the latest version.

To continue receiving analytics events from Milestone AI Bridge, you can either rename your IVA analytical events to the new naming format **app-name / event-name** in your **Management Client**, or you can unsubscribe all your former analytic event topics and then subscribe to the topics again.

If you have created rules or alarm definitions that reference these analytics topics and didn't rename your IVA analytic events, you must update the rules or alarm definitions to the new analytic event name format.

- Milestone AI Bridge is now registered on the Milestone Installed Integrations Insights platform when a license is activated and the processing server is registered.

- The **enforce-oauth** parameter in the Milestone AI Bridge Streaming is no longer used when getting camera's snapshots.

- A new environment variable called **EXTERNAL_ROOT_PATH** has been introduced to enable the creation of Milestone AI Bridge's ingress rules based on a common segmentation path. The default value of the **EXTERNAL_ROOT_PATH** environment variable is `"/processing-server"`. If you have hardware that was created based on a Milestone AI Bridge subscription (metadata or video topics), you must either: Set the environment variable **EXTERNAL_ROOT_PATH** to `""` (ie empty) in your `.env` file ... or ... Update all your current Milestone Bridge's VPS-related hardware URLs. See the following examples: For video-related hardware In the properties of hardware, add `"/processing-server"` to the path, changing the URLs from:

`VPSNODES,http://[AiBridgeHost]/video/[guid]/[topic]/[format]/[guid]/[guid]`

to

`VPSNODES,http://[AiBridgeHost]/processing-server/video/[guid]/[topic]/[format]/[guid]/[guid]`

For metadata-related hardware In the properties of hardware, add `"/processing-server"` to the path, changing the URLs from:

`VPSNODES,http://[AiBridgeHost]/metadata/[guid]/[topic]/[format]/[guid]/[guid]`

to

`VPSNODES,http://[AiBridgeHost]/processing-server/metadata/[guid]/[topic]/[format]/[guid]/[guid]`

- Storing log files at `/var/log/aib/[container-name]/` is now only enabled when using docker compose deployments.

- The **log-file-enabled** parameter has been introduced to the docker-compose yaml files. This boolean parameter enables or disables the generation of log files.

- Unregistering a processing server from the Management Client

- * XProtect system administrators can now unregister a processing server in the XProtect Management Client.

- Unregistering an IVA application from the Management Client

- * XProtect system administrators can now unregister processing server IVA applications in the XProtect Management Client.
- The Milestone AI Bridge Streaming container is now updated to use newer versions of the gortsplib package:
 - * github.com/aler9/gortsplib/v2 v2.0.0
- 1.7.2 (July 2024)
 - New optional parameters added to setup logging to a file in all Milestone AI Bridge containers:
 - * `log-max-size`: numeric, expressed in megabytes, the maximum file size for a single log file - default 100.
 - * `log-max-backups`: numeric, the maximum number of files to keep stored before removing them - default 15.
 - * `log-max-age`: numeric, expressed in days, the maximum amount of days to remove files - default 15. Not applicable on Milestone AI Bridge Web Service container.
 - * `log-level`: string, log level to use (error, warn, info, debug). Just applicable on Milestone AI Bridge Web Service container.
 - Log files are mounted in volumes, in host: `/var/log/aib/[container-name]/` - i.e `/var/log/aib/aibridge-webservice/webs`
 - New behavior in Milestone AI Bridge when an IVA app unregisters. Now, the following happens:
 - * In the VMS system, the analytics cameras created when you subscribed to the IVA app’s analytics topics are disabled. Disabled analytics cameras no longer listen for analytics data, but you can still access all previously received analytics data.
 - * Information about which of the IVA app’s analytics topics you subscribed to is cleared. You must re-subscribe to analytics topics when the IVA app is registered again. Re-subscribing to a topic also enables the existing analytics topic-related analytics camera.
 - New parameter for controlling and queuing internal RTSP buffers with video from a VMS system.
 - * The new `rtsp-write-buffer-count` parameter is added to the Milestone AI Bridge Streaming container.
 - * The parameter’s default length is 1024. If you want to use a different length, use lengths that are a power of two (512, 1024, 2048, and so on).
 - * Whenever this buffer is not long enough for your video packages, the Milestone AI Bridge Streaming container logs the following message in the `/var/log/aib/aibridge-streaming/streaming.log` log file on the host running Milestone AI Bridge or inside the container.
 - "RTSP buffer (Camera ID: [XXX-AAAA] - Stream ID: [YYY-BBB]): The VMS system has sent a video package with the length of '[Integer-Value-Here]'. However, Milestone AI Bridge can only handle packages whose maximum length is '[IntegerValue-Here]'. Increase the length of the 'rtsp-write-buffer-count' parameter in the Milestone AI Bridge Streaming container to handle longer video packages."
 - The Milestone AI Bridge Streaming container is now updated to use newer versions of the Go RTP Packages:
 - * github.com/pion/interceptor v0.1.29
 - * github.com/pion/rtp v1.2.14
 - * github.com/pion/rtp v1.8.7
 - All Milestone AI Bridge Go-based containers now use Go 1.22.5.
- 1.7.1 (June 2024)
 - Milestone AI Bridge now complies with Executive Order 14028 about improved cybersecurity. For more information, visit: <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/05/12/executive-order-on-improving-the-nations-cybersecurity/>
 - The Milestone AI Bridge containers are upgraded from Ubuntu 20.04 to 22.04.
 - The synchronization between Milestone AI Bridge and the XProtect VMS system is improved. Fewer amounts of synchronization are now needed.
 - OAuth token validation improved. The Milestone XProtect Identity Provider is now handling the issuer validation. Before, the validation relied on verifying the Milestone Management Server hostname.
 - On the Processing server tab, the Milestone AI Bridge topics in the App subscription list are now sorted by type (event, metadata, and video) and displayed alphabetically for easy selection and navigation.
 - The Milestone AI Bridge Web Service container is upgraded from Node.js 16 to 20.
- 1.7.0 (May 2023)
 - Switch from deprecated NPM package `express-graphql` to the latest `graphql-yoga` in the Milestone AI Bridge Webservice container.
 - The Milestone AI Bridge Fuseki container now uses Jena Fuseki version 4.7.0 (previously 4.4.0).
 - The `register.graphql` file has three new parameters: `version`, `manufacturer.id`, and `manufacturer.name`. IVA manufacturers can use the parameters to register their companies on the Milestone Installed Integrations Insights platform.
- 1.6.0 (March 2023)
 - New `MASTER_KEY` macro in the `docker-compose.yml` file and `masterKey` parameter in the helm chart `values.yaml` file for encryption of the XProtect basic user credentials you define in Milestone AI Bridge for logging into the XProtect VMS.

- New `enforce-oauth` parameter in the Milestone AI Bridge Streaming container added for improved compliance with defined user permissions in XProtect VMS.
 - Fixed imperfections in video codec parsing for all devices. The problem was first seen in connection with Bosch cameras.
 - Fixed that the IVA app web page constantly ran in the Milestone XProtect Processing Server Admin Plugin. Now the Microsoft Edge WebView2 threads are closed when not needed.
 - Fixed two leaks related to snapshot requests:
 - * A connection leak to Recording Server in the Milestone AI Bridge Connector container.
 - * A memory leak in the Milestone AI Bridge Web Service container.
 - Fixed increasing memory consumption in the Milestone AI Bridge Fuseki container.
 - Milestone AI Bridge is now fetching the configuration of a VMS installation up to 8 times faster.
 - New `zone` field added. Use it to ensure the best performance in large VMS installations with hundreds of recording servers and multiple processing servers.
- 1.5 (January 2023)
 - Access to video using WebRTC and Snapshots can now be authorized using an OAuth token. Such an OAuth token will be provided by the Processing Server plug-in for the XProtect Management Client when loading a webpage. Access to video can thus be authorized using the credentials of the user by which you are logged into the Management Client.
 - Updated the third-party libraries to the latest versions. Also, now using `graphql-ws` instead of the deprecated `subscriptions-transport-ws` module.
 - Now registration and unregistration of the `Apps`, `Config maps`, and `Licensors` can be done individually.
 - Added support for querying additional details about the configuration of the registered XProtect VMS.
 - The `docker-compose-production.yml` file does no longer expose unnecessary ports.
 - Added support for config maps. This will allow for both updating and querying key-value pairs in a database managed by the VMS.
 - Introduced a new plug-in interface for transcoding WebRTC video allowing JPEG, H.264 and H265 video streams to be rendered in Chrome, Edge, Firefox, and Safari. Added a new plug-in that transcodes video using the NVIDIA Video Codec SDK.
 - Added support for a webpage to be associated with a Processing Server in XProtect.
 - The video and metadata subscriptions devices in XProtect VMS keep the connection to the recording servers even if there is no activity. Also, fixed a resource leak that happened when reconnecting.
 - More detailed log entries written by the Milestone AI Bridge Connector container when the connection to the XProtect VMS is lost.
 - Optimized synchronization of configuration data from the XProtect VMS. Irrelevant data no longer included.
 - 1.4 (August 2022)
 - AI Bridge now works with all versions of XProtect and not only Corporate and Expert
 - All Milestone AI Bridge containers are now multi-architecture Docker images with support for both X86 and ARM. Tested on NVIDIA Jetson AGX Xavier / Orion.
 - Introduces a new `scope` parameter that allows you to limit the exposed cameras and microphones to those of a user defined device group in XProtect (e.g. to reduce resource consumption).
 - Now using the Confluent Community Docker Images for Apache Kafka (the images from wurstmeister did not support ARM)
 - Added ingress-nginx as a dependency to the Helm Chart
 - Now mapping fixed RTP ports in Docker Compose files to connect to AWS Panorama devices. Before the RTP ports were mapped randomly.
 - Fixed issue causing video connection to XProtect to be forcibly closed when security token expired (could potentially happen once every 4th hour)
 - Updated to use latest version of gortsplib library (fixes for RTSP streaming).
 - 1.3 (June 2022)
 - Added support for only receiving video from XProtect if motion is detected. Filtering is supported for both RTSP and Direct Streaming (gRPC).
 - Fixed bug that in rare cases could cause the connector container to become unresponsive when reconnecting after a network error.
 - 1.2 (May 2022)
 - Added support for getting video using the WebRTC protocol (only H.264 for now).
 - Added support for licensing an integration using the Milestone Licensing Server.
 - Added support for filtering by name when querying for cameras, microphones, camera groups and microphone groups.
 - Optimized synchronization of configuration data with XProtect when having many disabled cameras.
 - Improved log messages to reveal more details when the connection to XProtect fails.
 - Refactoring of Processing Server Plug-in fixing several minor issues. Settings are now stored in a different way and after upgrading you might need to re-subscribe to topics.

- For Docker Compose deployments, the two new environment variables `EXTERNAL_IP` and `EXTERNAL_HOSTNAME` have replaced the old `HOSTNAME` environment variable.
- On slow machines, the `init` container would in some cases not complete; this was due to a Kafka consumer in the `webservice` container not retrying long enough for the group coordinator to become available.
- 1.1 (March 2022)
 - When deploying the AI Bridge using the Helm Chart, the XProtect credentials now must be provided using a Kubernetes Secret and not through environment variables.
 - When deploying the AI Bridge using the Helm Chart and using TLS, the VMS CA certificate must now be provided using a Kubernetes ConfigMap. Also, the issued server certificate and its associated private key must be provided using a Kubernetes Secret.
 - Added support for new metadata format `ONVIF_ANALYTICS_FRAME` as a sub format of `ONVIF_ANALYTICS` where the root node of the XML document is a 'Frame' node.
 - Now any object type can be used with the `DEEPSTREAM_MINIMAL` metadata format. Before, any object that did not have object type `Vehicle`, `Person` or `Bicycle` would be ignored.
 - Improved logging behavior of the Milestone `AI Bridge Proxy` container when sending metadata and video frames to the XProtect VMS. Instead of having one log entry for every frame, now the container only writes log entry when the first frame is logged. A follow-up log entry is written when the last frame was sent more than 10 seconds ago.
 - Removed a label used for debugging that mistakenly was shown in the Milestone XProtect Processing Server Admin Plugin.
 - Fixed a bug in the Milestone XProtect Processing Server Admin Plugin, which could cause the subscription of metadata and video topics to fail.
- 1.0 (March 2022)
 - First official release in the NGC Catalog