Certified Solution for Milestone
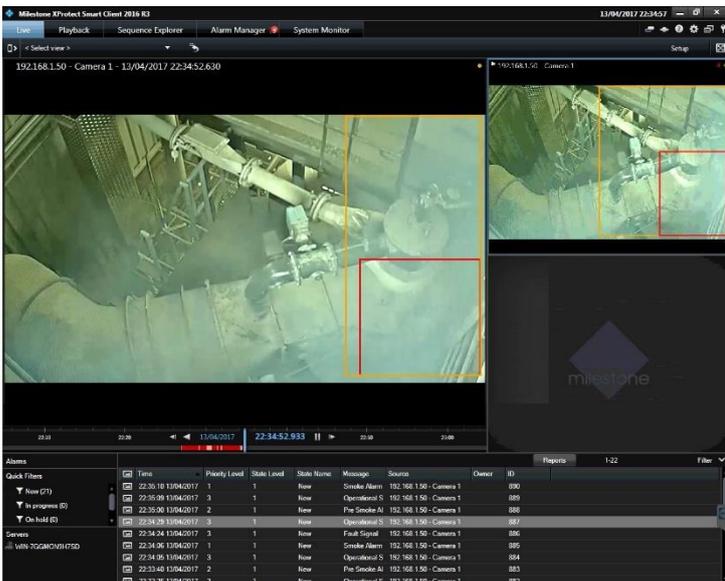
Araani SmokeCatcher

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About Araani NV.

Araani is a Belgian video analytics company and the developer of SmokeCatcher, a reliable early warning system for smoke detection in critical indoor environments. Araani's mission is to guarantee business continuity and fire safety for companies that operate in highly critical, high-impact environments.

About Milestone Systems

Milestone Systems is a global leader in providing open platform IP video surveillance software. Milestone has provided easy-to-use, powerful video management software in more than 100,000 installations, worldwide.

Milestone XProtect® provides open architecture products that are compatible with more IP cameras, encoders, and digital video recorders than any other manufacturer. Because Milestone provides an open platform, you can integrate today's best business solutions and expand what's possible with future innovations. Visit www.milestonesys.com for more.

Executive Summary

The following report contains the results of Milestone Certified Solution tests performed on the Araani SmokeCatcher Video Smoke Detection solution. The tests were intended to verify that all the advertised functionality of the SmokeCatcher integration with Milestone is available when the systems are successfully integrated. During this process, Milestone engineers reviewed all documentation covering the SmokeCatcher solution and documented the expected functionality of the integration. Araani confirmed that the documented functionality met customer expectations, and the test plan for the certification was designed to verify that each documented item of functionality was present when SmokeCatcher and XProtect were installed, integrated, and operational. The tests environments were installed and integrated by Araani engineers, and all functionality was verified by Milestone engineers connecting remotely into the system.

Certified Products

- Araani SmokeCatcher Video Analytics System
    - Compatible Cameras
        - AXIS P1365(-E) Mk II (recommended)
        - AXIS P1354(-E)
        - AXIS P1355(-E)
        - AXIS Q1614(-E)
        - AXIS M1145
        - Please contact Araani for the latest compatibility list
- Milestone XProtect Corporate 2017 R1
    - Listed Araani SmokeCatcher video analytics solutions are certified for use with all versions of the Milestone XProtect VMS.
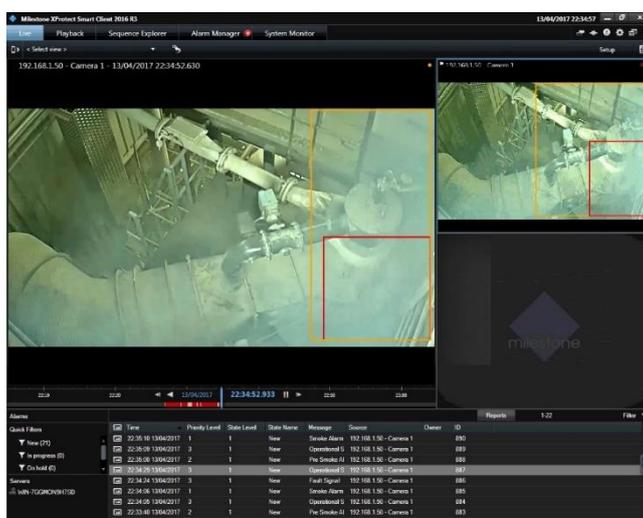
Performance of the solution may vary if different XProtect products and/or system components not listed in the tests details are included.

System Topology:

SmokeCatcher devices, and the SmokeCatcher Bridge application for Milestone XProtect are designed to allow users to receive event notifications and metadata (Advanced integration) when smoke is detected in the field of view from any compatible camera. The SmokeCatcher device makes the initial detection, and it passes this detection event, along with bounding box metadata through the SmokeCatcher Bridge before it enters the Milestone XProtect VMS. The integration works the same in supported versions of both XProtect Advanced products and XProtect Professional products.

The SmokeCatcher system is licensed according to the number of SmokeCatcher devices (cameras) in use. Contact Araani for the SmokeCatcher licenses.

There are two types of integration:

1. Basic integration:

- Araani:
    - SmokeCatcher Algorithm embedded in a compatible Axis camera
        - Detects smoke and communicates directly with Milestone Event Server
        - No metadata included

- Milestone:
    - XProtect Essential, Express, Professional, Expert or Corporate
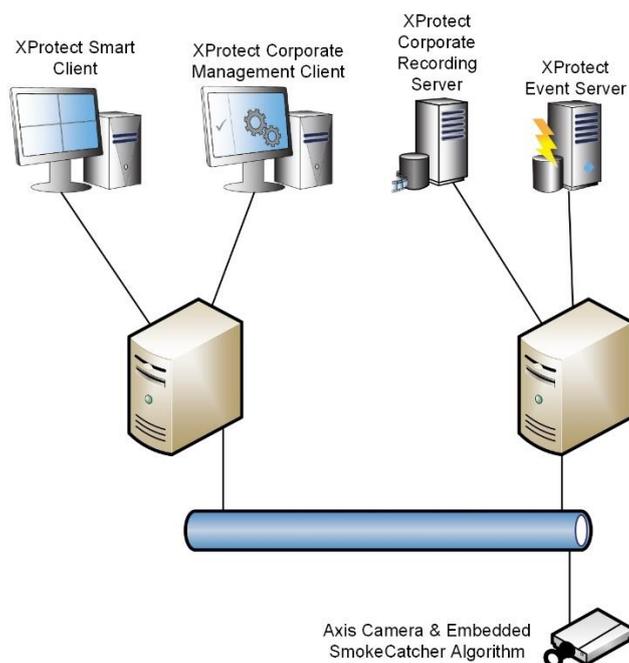
2. Advanced integration:

- Araani:
  - SmokeCatcher Algorithm embedded in a compatible Axis camera
    - Detects smoke and creates metadata
    - Communicates with SmokeCatcher Bridge
  - Smoke Catcher Bridge
    - Receives notifications and metadata from SmokeCatcher devices
    - Communicates with XProtect Events Server, including metadata bounding boxes

- Milestone:
  - XProtect Expert or Corporate
  - MIP Driver
    - Device handling the incoming metadata
    - Requires an additional device license
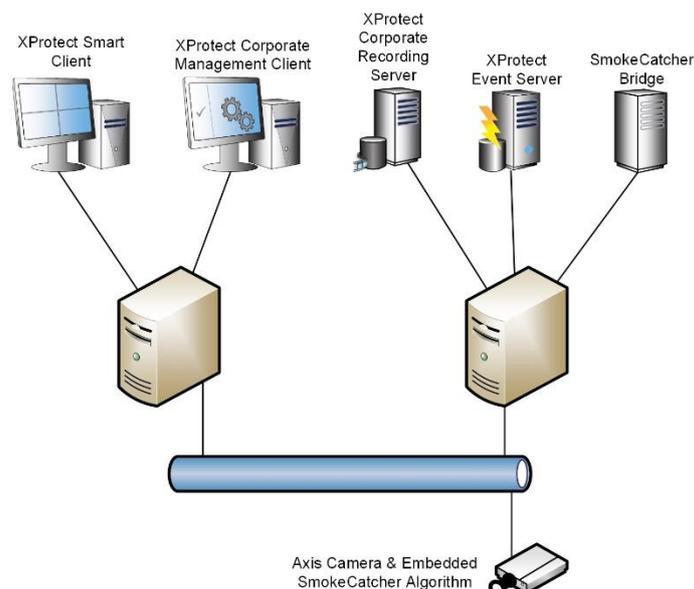
After installation of the SmokeCatcher system, it is required to also configure XProtect to properly handle the incoming metadata. This configuration requires the installation of the MIP Driver as a device to the XProtect system, this will require an additional device license within XProtect. Once the system is configured properly Milestone XProtect will receive real-time events from the SmokeCatcher system and display the metadata on both live and recorded video in the Smart Client.

Integrated Functionality

The list of integrated functionalities that was verified by the Milestone Certification process is listed below, all functionality will be available in a successfully installed and integrated surveillance system that utilizes XProtect and the Araani SmokeCatcher system.

SmokeCatcher Integrated Functionality with XProtect:

Item #	Function	Description
BASIC + ADVANCED INTEGRATION		
1	Real-time analytic events upon 5 different triggers	Receipt by XProtect Event Server of any of these events, and subsequent triggering of configured system actions. 3. Communication fault signal 4. Fault Signal 5. Operational Signal (following a fault) 6. Pre-Smoke Alarm 7. Smoke Alarm
2	Alarm list in the Smart Client populated with Alarms triggered by SmokeCatcher events.	Real-time display in the Smart Client alarm list and Alarm workspace of all alarms configured within the XProtect application and triggered by the SmokeCatcher Bridge integration.
3	Record video based upon SmokeCatcher Events	Use the XProtect logic based rules engine to trigger video recording on associated cameras when specific SmokeCatcher events are received. Also, able to trigger any subsequent XProtect system action, such as sending an email, making an audible alarm, or moving a PTZ camera.
ADVANCED INTEGRATION		
4	Metadata bounding boxes applied to live video and recorded video.	Areas within the field of view of the compatible Axis cameras embedded with the Smoke Catcher Algorithm would automatically contain bounding boxes over the areas where the Pre-Smoke Alarm and Smoke Alarm were generated.
5	Associate XProtect devices with MIP Driver inputs from SmokeCatcher devices.	Configured MIP Drivers which are triggered by SmokeCatcher Bridge and SmokeCatcher Devices can be linked to the respective Milestone managed Axis cameras.

Conclusion

The Araani SmokeCatcher video analytics solution for integration with Milestone XProtect is a certified solution. All the functionality listed in this document is achievable in a system installed and integrated by authorized partners of Milestone and Araani. Milestone and Araani collaborated to define the functionality that this solution brings to their customers, and using a system designed to replicate realistic surveillance installations, both parties verified that the solution indeed delivers the promised functionality.

The additional functionality this solution offers for surveillance and smoke detection analytics systems is reliable and repeatable. Any XProtect system which could benefit from real-time smoke detection alarms linked to their video surveillance could make great use of this integration from Araani.

References

To learn more about the products mentioned in this document visit the links below:

- **Araani SmokeCatcher System**
  - www.araani.com/smokecatcher/

- **Milestone XProtect VMS:**
  - www.milestonesys.com/solutions/platform/video-management-software/