AI VMS Mini

Custom-built Solution for
Small and Medium-sized Businesses

AI VMS Mini is a one-stop solution designed by Spark for small to medium-sized environments, including residential areas, commercial buildings, parking lots, road surveillance, campuses, and factories.

Equipped with an Asus IoT industry X86 server, it supports 16 chs for surveillance, featuring high-efficiency AI chips and cutting-edge VMS technology, providing users with a comprehensive solution.

ASUS IoT Industry X86 Server

- 16-Channel recording
- Support Master/Slave
- Support ONVIF/RTSP video input
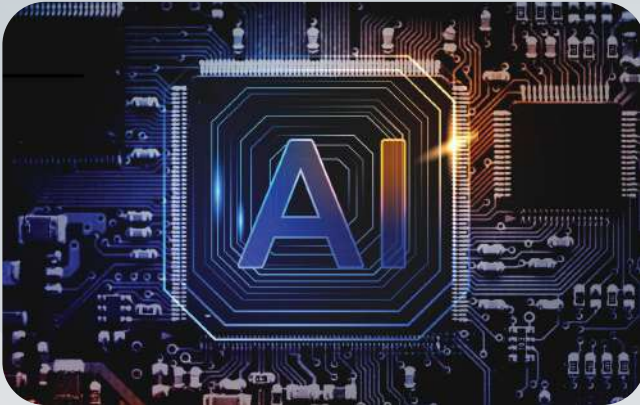- Third party integration (LPR/eTag)
- FCC、CE、RoHs

Argo AI VMS

- AI Detection: Human, Vehicle, Smoke, Fire, ALPR
- Local/Remote IP Configuration
- Dashboard
- Health Doctor
- LINE/Email Notifications
- E-Map

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High-efficiency AI chip

Argo processes image data in real-time, identifying human, vehicle, flame and smoke, while supporting behavior detection like intrusion and loitering for enhanced monitoring efficiency.

Kneron

AI Video Analysis Management

Argo processes image data in real-time, identifying human, vehicle, flame and smoke, while supporting behavior detection like intrusion and loitering for enhanced monitoring efficiency.

Upgrade Analog to AI

Over 60% of cameras in the market are stil analog. With this device, existing cameras can be easily upgraded to AI functionality without replacement.

Customized Dashboard

Argo offers customizable dashboard design features, including layout configurations and charts (pie, line and bar), making it easy for users to view all statistics.
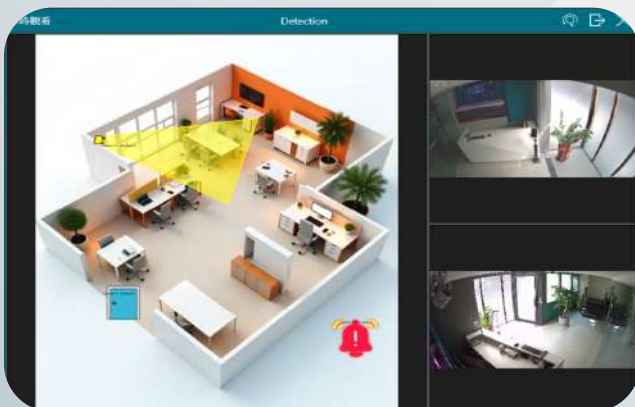
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Remote Monitoring

Supports local and remote monitoring, allowing users to view and operate through different devices such as desktop, laptop, tablet and mobile.

Two-way Intercom

Supports two-way audio, SIP intercom and remote video calls, with all communications recorded.

E-map

Supports importing Multi-level floor plan, making it easier to deploy monitoring devices. When an event occurs, alarms and real-time images will automatically activate to assist managers in responding quickly.
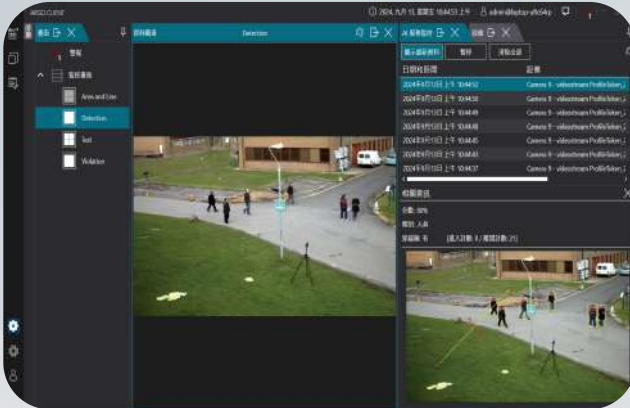

Real-time Notification

Supports real-time notifications via email and communication apps (e.g. LINE), enabling managers to stay updated on events and take quick action to mitigate risks.
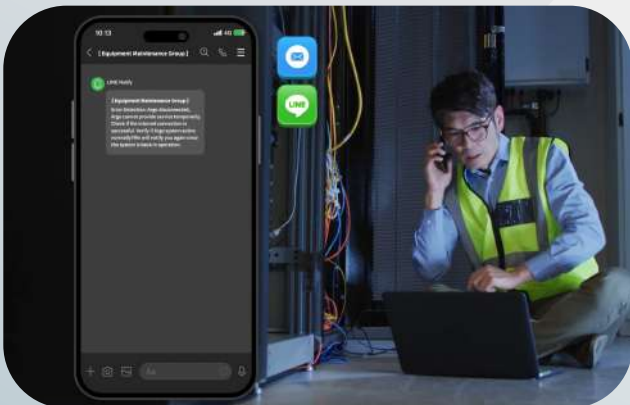
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Cross-Line Detection and Counting

Argo accurately tracks pedestrian and vehicle flow, providing object crossing detection to support technology-based law enforcement and versatile safety management.

Multi-country ALPR

Supports license plate recognition in 80% of countries, identifying 4526 models and 194 brands, with real-time vehicle monitoring and access records.

Health Doctor

Upon detecting anomalies, Argo immediately alerts managers and provides troubleshooting guidance to minimize downtime and safeguard assets.

Advanced User Management

Administrators can adjust user permissions flexibly, saving settings to specific groups for quick application when adding new users, enhancing management efficiency.
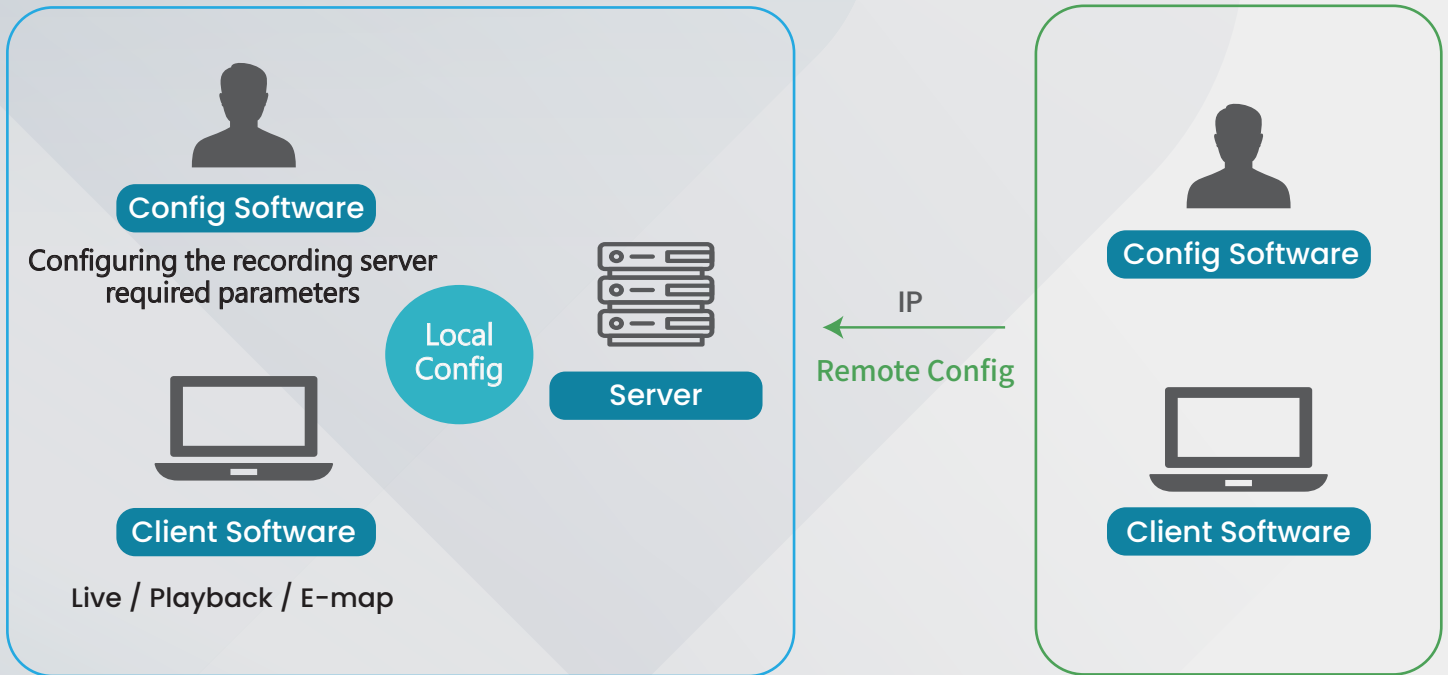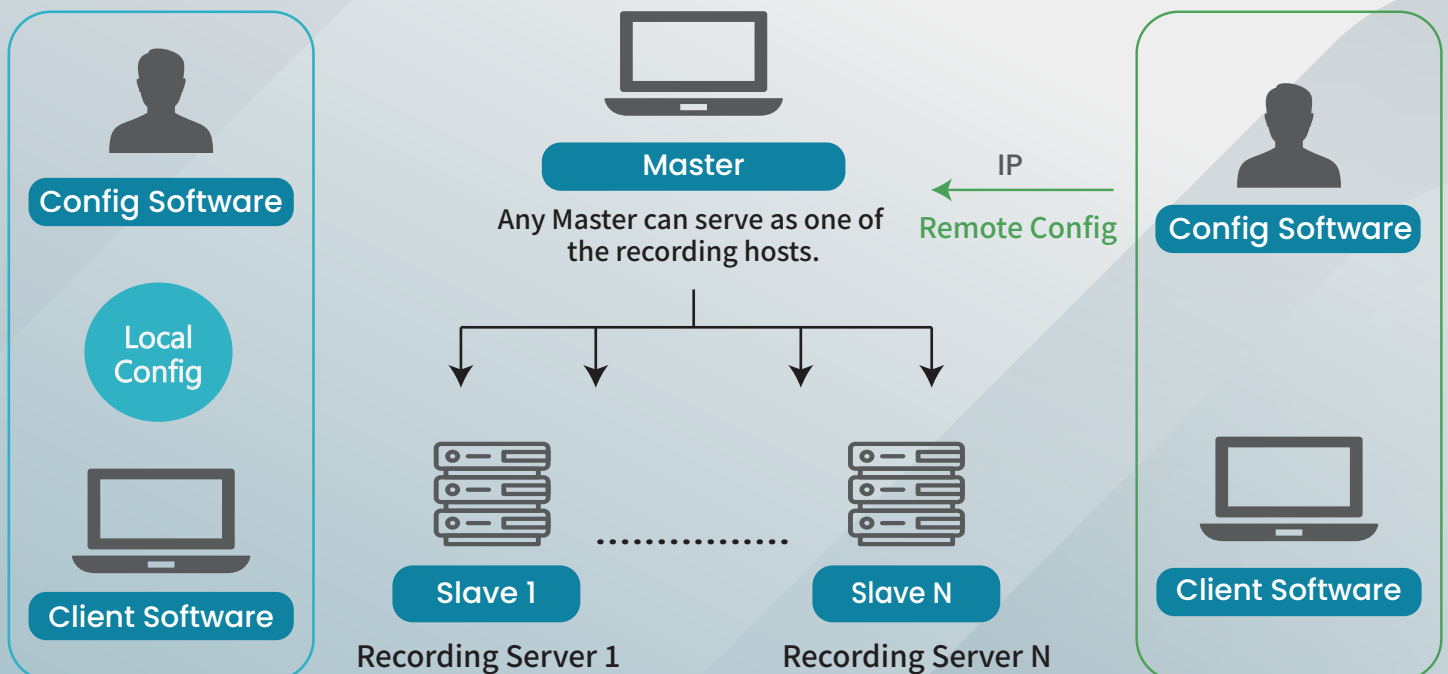
System

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Standalone

Users can configure the required parameters locally/remotely.

Config Software

Configuring the recording server
required parameters

Local Config

Server

IP
Remote Config

Client Software

Live / Playback / E-map

Config Software

Client Software

Master/Slave

In addition to the Master server, users can easily add several servers as slave servers.
With this structure, users can monitor and manage multiple screens at the same time.

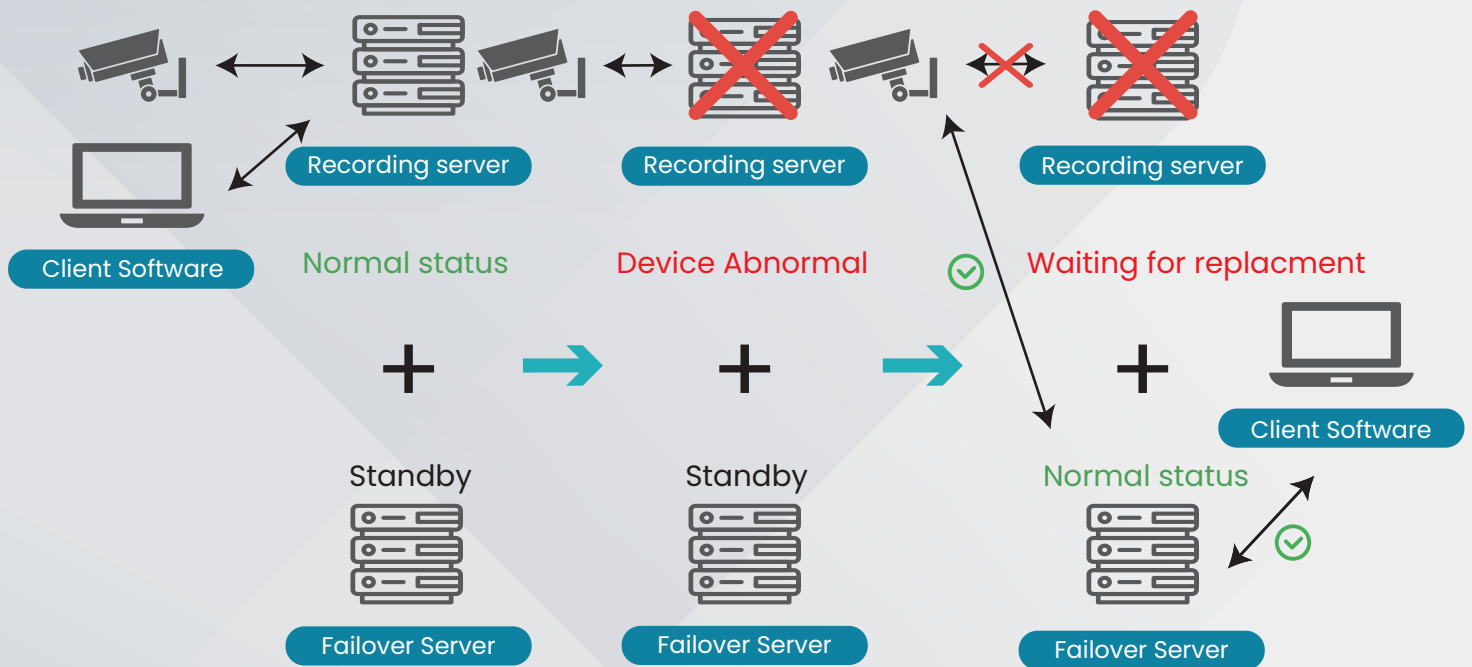**Config Software**
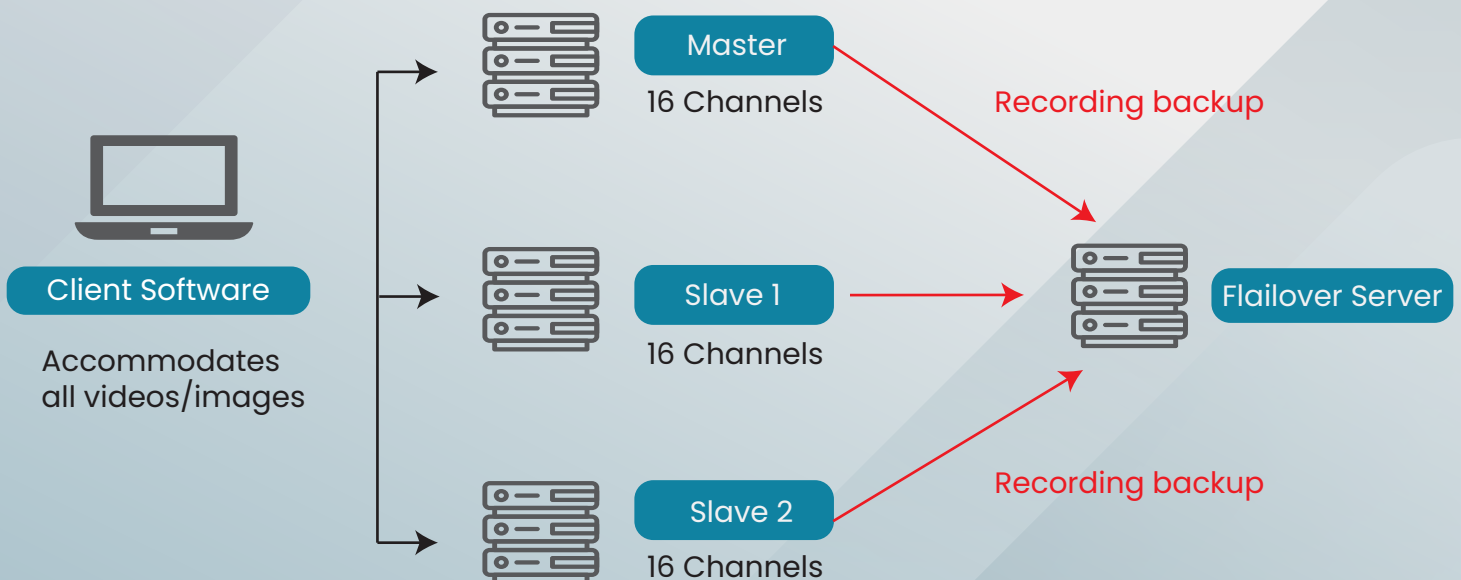
Local Config

Client Software

Master

Any Master can serve as one of
the recording hosts.

IP
Remote Config

Config Software

Client Software

Slave 1

Recording Server 1

Slave N

Recording Server N

Failover

Standalone N+1

When the original recording device malfunctions,the failover server will be activated.

Recording server — Normal status
Client Software

Recording server — Device Abnormal

Recording server — Waiting for replacment

Client Software

Standby
Failover Server

Standby
Failover Server

Normal status
Failover Server

Master/Slave N+1

When any recording server malfunctions, the backup recording device will be activated

Client Software

Accommodates
all videos/images

Master
16 Channels

Slave 1
16 Channels

Slave 2
16 Channels

Recording backup

Recording backup

Flailover Server

Specification

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AI Management

AI Video Analytics	-Human detection -Vehcile detection: car, motorbike, truck, bus, bicycle -Object detection -Density detection -Loitering detection -Cross-line detection -Cross-line counting	-Smoke detection* -Fire detection* -Multi-Country License Plate Recognition* -190 countries -4526 models -194 brands -12 colors

Platform Management

Dashboard	-Heatmap -Vehicle classification: car, motorbike, truck, bus, bicycle	-Counting(human, vehicle) -Charts(pie, bar, horizontal, line) -Exported (xlsx).
E-map	-Unlimited e-map layer -Unlmited device to map -View alarms on the map -Event pop-up	-Rephase device position -Rephase device angle -Color-coded camera alarm status differentiation
Health Doctor	-AI function anomaly -Disconnection anomaly (camera, network) -Device anomaly (intercom, I/O module)	- Hardware anomaly (host, hard drive) - CPU overload
Real-time Notifications	-E-mail	-LINE* -Grouped, scheduled -Customized with content. -Image (Interval 1-300 secs)
Access Monitoring*	-Real-time display of license plate -Access card number	
Intercom Monitoring*	- SIP two-way intercom - Video call - Emergency call alert	

Vision Management

Compatibility	Compatibility Spark cameras, Omnieye cameras, 3rd party cameras	
Operating System	Win 11 IoT, Support for multi-monitor output	
Language	Chinese, English, Italian, Japanese, Spanish	
Video Compression	H.265, H.264, MJPEG	
Audio Support	Two-way audio (Client)	
Liveview	-Liveview -4 channel views (16 chs recording) -Customizable layout -Multi-stream management	-Event pop-up -Manual snapshot and recording -PTZ control
Recording	-16 channel recording (Max. 32 chs) -Continuous/Scheduled recording -Event recording	-Edge recover -Event pre/post recording
Playback	-Customizable layout -Instant playback -Synchronized playback -Date and timeline visualization -Manual snapshot	-Event playback -Playback speed controls -Fast forward: 1X, 1.5X, 2X, 4X, 8X, 16X, 32X, 64X, 128X -Fast forward slow playback: 0.125X, 0.25X, 0.5X -Rewind: 1X, 1.5X, 2X, 4X, 8X, 16X, 32X, 64X, 128X -Rewind slow playback: 0.125X, 0.25X, 0.5X
Export	-Export multiple video with selectable time range -Support MOV, MKV, MP4, AVI, Spark format -Support watermark	
Certification	-CA	

Remark: Features marked with * are optional.

Specification

Event & Alarm Management

Event Triggers	-Configurable based on device & schedule -AND/OR trigger conditions -Digital input -Camera analytics -AI analytics	-System related events -User related events -Device and network related events -Third party events (LPR, eTag)
Event Actions	-Configurable alarm SOP -Configurable alarm recipient -Recording (support Pre/post recording up to 300 secs) -Digital output	-Email & LINE* notification -PTZ preset -PTZ tour
Alarm Settings	-Configurable alarm workflow -Alarm trigger scheduling	- Set alarm recipients
Alarm Reception	-Alarm management system -Client alert sound	-Alarm record query database -Pop-up alarm event view

System management

User Pprivilige	-Configurable based on camera, function and schedule	
Camera Management	-Support basic camera settings	
Third-party Device Management*	-Supports 24GHz radar, which can be used in conjunction with cameras for perimeter protection. -I/O module -LPR Camera	-eTag, RFID reader -LED display

ASUS IoT X86 Server

Model	SR-S-AIVMS-Mini
Processor	Intel® i5 Processor, 12500E
Display Interface	-DP × 1 -HDMI ×2
Integrated Graphics	UHD Graphics 770

I/O Port	-USB 3.2 ×4
	-USB 2.0 ×4
	-Audio Jack ×2
	-1 PCIe 4.0 x16
	-2 M.2
	  1× M.2 with E key, type 2230 for WIFI / BT device(PCIe & CNVi)
	  1× M.2 with M key, type 2242 / 2260 / 2280

Memory	SO-DIMM, DDR4 16GB(Max.64GB)
HDD	1×3.5" or 2×2.5" or 1×3.5" + 1×2.5" HDD, Max. supports 16T 3.5" recording specific disc.
Network	RJ-45 (10/100/1000Mbps) Network ports ×2
Fan	Yes , CPU/Internal case
Power	Flex ATX 250W Gold
Dimensions	255×230×88 mm (W×D×H)
Certification	FCC / CE / RoHs
Operating Temp	0ºC ~ 60ºC