

AI Security Camera + Intelligent Video Analytics — Decision Sheet

Fora Soft Learn · AI for Video Engineering

1 — The feature catalog (the group decides everything)

Detect	Person/vehicle, intrusion, line-crossing, object-left, PPE, fall. Pipeline: object detection.
Analyse	Counting, loitering, queue/crowd, heat maps, license plates (ANPR). Pipeline: tracking.
Identify	Face recognition / biometric ID. HIGH-RISK biometric — a different build.

2 — Three places the AI can run (place every analytic)

On camera (edge)	in-camera detection, ships metadata + clips → low bandwidth, private.
On a server	VMS + GPU, correlates one person across many cameras → full-video bw.
In the cloud	VSaaS subscription, scales → but video leaves the premises (privacy + bw).
2026 default = HYBRID	detect on the camera, correlate and store on a server or the cloud.

3 — Watching events vs identifying people (EU AI Act + GDPR)

Tier	Covers	Rule
STANDARD	event analytics (detect/count/intrusion)	GDPR — lawful basis, signage, DPIA.
HIGH-RISK	biometric ID (face recognition/watchlist)	EU AI Act Annex III(1) from 2 Aug 2026.
PROHIBITED	real-time remote biometric ID in public spaces + emotion recognition	banned 2 Feb 2025.

4 — Add it: embed / assemble / build + the math

Route	Time	Trade-off
Embed via ONVIF Profile M + VMS	days-weeks	vendor models; you fit their feature set.
Assemble a CV stack	weeks-months	control analytics & data flow; you own tuning.
Build open models at the edge	months	video never leaves device; no per-camera cloud fee.

Math: AI cuts false alarms ~90-95% (5,000→200 alerts/night for 50 cams); edge uplink KB vs ~200 Mbps cloud.

5 — Compliance gate — before launch (context, not legal advice)

- ☐ Establish a GDPR lawful basis for the cameras and post clear signage that filming is happening.
- ☐ Complete a Data Protection Impact Assessment (DPIA) for systematic monitoring of a public area.
- ☐ Set a retention period and delete on schedule; store event clips, not continuous footage, where possible.
- ☐ Encrypt footage in transit and at rest; limit access to people who genuinely need it.
- ☐ Keep biometric identification OFF by default; never run real-time remote ID in a public space (Article 5).
- ☐ For any biometric feature: EU AI Act high-risk obligations + human-in-the-loop verify; check NDAA camera rules.



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This sheet sorts camera analytics by group, placement and EU AI Act tier and lists the launch gate. Our seven-volume handbook covers the video stack behind surveillance; start with Volume 6 for detection, tracking and OCR, then Volume 7 for real-time pipelines and biometric rules, and Volume 1 for camera encoding.

WHAT YOU WILL FIND INSIDE

- Detection, tracking and OCR on camera feeds (Vol. 6)
- Real-time analytics pipelines and cost (Vol. 7)
- Biometric rules under the EU AI Act (Vol. 7)
- Encoding and storage for camera fleets (Vol. 1)

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Vol. 4 · Audio for Video I — PCM, codecs, loudness, accessibility, real-time voice processing

Vol. 5 · Audio for Video II — jitter buffers, lip sync, Atmos, quality metrics, neural codecs

Vol. 6 · AI for Video I — models and inference, computer vision, speech, search, generative video

Vol. 7 · AI for Video II — real-time pipelines, agents, serving, cost, compliance, verticals

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