Build vs Buy vs Customize a VMS — Decision Guide

Three ways to get a video management system. Match your project to a path on cost, time, control, and lock-in.

The three paths at a glance

	Buy	Customize	Build
What it is	License a finished VMS	Extend a VMS via SDK, or assemble on open parts	Write the whole VMS yourself
Time to production	Days to weeks	Weeks to months	6–18+ months
Control & fit	Vendor's workflow	Your 20% on their 80%	Total — own the roadmap
Lock-in	High (hedge: ONVIF)	Medium	None
Best fit	~80% of deployments	Off-the-shelf + a gap	Regulated / proprietary / you sell VMS

Four questions before you decide

- Money — have you compared five-year cost, not day-one price?
- Time — can you wait 6–18 months for a custom build to go live?
- Control — does a standard off-the-shelf workflow actually fit yours?
- Lock-in — are your cameras ONVIF-conformant so you can switch vendors later?

The five-year cost math

Buy ≈ platform + (license × cameras) + (annual-per-camera × cameras × 5). Build ≈ build cost + (annual maintenance × 4). Buying grows with every camera; building is a large fixed cost that barely moves with scale. The two cross near ~1,000 cameras: below it, buy; above it, custom wins on cost as well as control. (Figures illustrative — plug in your own quotes.)

The bottom line

Buy if…	Customize if…	Build if…
Standard workflows, a known camera count, you want it running this week, and roughly 1,000 cameras or fewer.	Off-the-shelf is ~80% right and an SDK plug-in or open components can add the missing 20% at a fraction of a full build.	The workflow itself is a mismatch, you need proprietary analytics, you sell VMS, or you run more than ~1,000 cameras.

Standard floor: any VMS — bought, customized, or built — should meet the IEC 62676 video-surveillance system requirements and keep the camera boundary on ONVIF.



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This guide compares buying, customizing and building a VMS on cost, time, control and lock-in. Our seven-volume handbook covers the stack you would own; start with Volume 6 for detection and video analytics, then Volume 7 for serving and cost per stream-hour, and Volume 1 for codecs and storage.

WHAT YOU WILL FIND INSIDE

- Video analytics and detection (Vol. 6)
- Codecs and storage for cameras (Vol. 1)
- Serving and cost per stream-hour (Vol. 7)
- Edge vs cloud deployment (Vol. 6)

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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

Weighing an off-the-shelf VMS against a custom build or SDK extension?

We will run your camera count and five-year costs through the three paths and scope the option that fits. 250+ video products shipped since 2005.

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