



## KRANTI NATION

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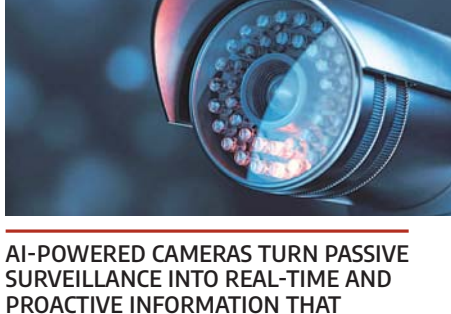
# Cameras that see, compute and assist

Cameras are omnipresent and now they seem to be becoming omniscient too, as they help a variety of industries in making sense of information tracked and recorded.

The age of visual monitoring is moving to the next phase. From merely recording information, visual-monitoring systems are now analysing, interpreting and predicting activity across sectors. Recording an activity with well-placed cameras is relatively easy and has gained traction over the past few years.

What is new is that artificial intelligence (AI) and edge computing are enabling cameras to understand moving images in real time and trigger alerts for action.

From bank ATMs to highways and retail stores, a variety of sectors are applying AI-powered cameras for smart monitoring in nearly every part of the country. Visuals had to be stored locally earlier but new solutions allow connected-camera systems to store data in external locations for safety. In low-bandwidth locations where uploading visuals can be time consuming, smart cameras use edge computing to send data and alerts almost instantly.



### AI-POWERED CAMERAS TURN PASSIVE SURVEILLANCE INTO REAL-TIME AND PROACTIVE INFORMATION THAT BUSINESSES CAN USE PROMPTLY

Edge-computing systems allow data to be interpreted using AI directly on local devices —

such as smartphones, cameras, or factory sensors — rather than relying on a remote, centralised Cloud server.

“Vision AI is becoming a critical infrastructure. India is late to it, and that is the opportunity,” says Rajiv Kaul, executive vice chairman and chief executive officer of CMS Info Systems, a cash logistics company. “China built it as state infrastructure. The West let it grow as a private patchwork. India still has the chance to architect it as sovereign infrastructure, in a democracy. That means the stack stays Indian: The chipset, the models, the command centre, the data. Run by Indian companies.”

CMS began business by monitoring bank ATMs but has since expanded its operations into multiple non-financial sectors, deploying its proprietary HawkAI solutions across diverse industries. Among these are the “dark stores” powering the quick-commerce boom: Compact neighbourhood warehouses operating on razor-thin margins, where inventory shrinkage, operational downtime and theft erode profitability. HawkAI addresses these issues by providing operators with centralised, real-time oversight across warehouses. The system continuously monitors the status of CCTV cameras and network video recorders, flags equipment failures instantly and delivers both live and historical footage to connected devices. Ultimately, its AI-driven intrusion detection, theft prevention and transit-vehicle monitoring transform passive surveillance into an active, protective shield — effectively reducing losses, accelerating incident response times, and streamlining multi-site operations.

CMS says it processes more than a million alerts daily from more than 350,000 cameras across 50,000 sites. Nearly 90 per cent of the information gathered is analysed by an agentic AI layer in less than four seconds.

Monitoring fuel pumps is challenging as they operate amid delayed maintenance, inconsistent compliance and a lack of centralised visibility. Connected camera systems unify access to all locations on one dashboard with live and archived feeds, vision-AI alerts and location-specific analytics.

Footwear retailers manage hundreds of stores with security cameras that only record activity. With vision AI systems they can replace passive recording with a constant intelligence layer.

Quick-service restaurants often lose revenue to cash-handling fraud, under-billing and inefficient table management. To address these problems, CMS provides real-time cash-counter monitoring to instantly flag discrepancies, utilises footfall counting to reconcile physical diner numbers with actual billing, and deploys AI to detect uncleaned tables and rising wait times. The result is heightened accountability at the counter, accelerated table turns and a better customer experience.

Smart cameras also assist electric vehicle (EV) charging networks. Operators can benefit from centralised visibility on non-EVs encroaching tracks and theft or damage to assets such as charging guns and bollards.

With connected-camera systems, Indian industry is shifting from reactive to proactive monitoring of activities and assets. Cameras don't just see, they also know.

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The writer is an economic analyst and author

